HDR OBG a joint venture

July 23, 20234

Department of the Army
Kansas City District, Corps of Engineers
Josh Watts
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Contract W912DQ-18-D-3010: Task Order W912DQ21F3031

Dear Mr. Watts,

Enclosed is the Pre-Design Investigation Report for the GCL Tie & Treating Superfund Site, Operable Unit 3 revised per comments received on the draft submittal.

Please contact us with questions.

Sincerely,
HDR OBG JV

Daniel J. St. Germain, PG

Project Manager



Pre-Design Investigation Report

GCL Tie & Treating Superfund Site – Operable Unit 3

Contract No. W912DQ18D3010

Task Order W912DQ21F3031

Village of Sidney, Delaware County, New York
July 23, 2024

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Contents

1 Introduction 1-1
1.1 Background 1-1
1.2 OU3 Interim Remedy 1-2
1.3 Scope of Work 1-3
2 Methods and Procedures 2-1
2.1 Wetland Delineation 2-1
2.2 Geophysical Utility Mark-Outs 2-1
2.3 Well Inventory and Assessment 2-1
2.4 Optical Imaging Profiler Borings 2-2
2.5 Bedrock Borings 2-3
2.6 Geophysical Logging 2-5
2.7 Well Installation 2-5
2.8 Groundwater Level Measurements 2-6
2.9 Monitoring Well Sampling 2-7
2.10 NAPL Bench-Scale Testing/Steam Injection Pilot Study 2-7
2.11 Management of Investigation-Derived Waste 2-8
3 Geology and Hydrogeology 3-1
3.1 Geology 3-1
3.1.1 Regional Geology 3-1
3.1.2 Local Geology 3-1
3.1.2.1 Fill Material 3-1
3.1.2.2 Lacustrine Sand, Silt, and Clay 3-1
3.1.2.3 Kame Sand and Gravel 3-2
3.1.2.4 Bedrock 3-2
3.1.3 Borehole Geophysics 3-2
3.1.3.1 Acoustic & Optical Televiewer 3-3
3.1.3.2 Natural Gamma Ray 3-4
3.1.3.3 Fluid-Temperature and Resistivity 3-4
3.1.3.4 Heat Pulse Flow Meter 3-5
3.1.3.5 Geophysical Statistical Compilation 3-5
3.1.4 Geologic Cross-Sections 3-6
3.2 Hydrogeology 3-7
4 Investigation Results 4-1
4.1 Data Usability 4-1
4.1.1 Precision 4-1
4.1.2 Accuracy 4-2
4.1.3 Representativeness 4-2
4.1.4 Comparability 4-2
4.1.5 Completeness 4-2
4.1.6 Sensitivity 4-2
4.1.7 Blank Contamination Elimination 4-3
4.2 Unconsolidated Sediments 4-3
4.2.1 Laser Induced Fluorescence Borings 4-3
4.2.1.1 Electrical Conductivity 4-3
4.2.1.2 HPT Profiling 4-4

4.2.1.3 Fluorescence 4-4
4.2.1.4 Summary 4-5
4.2.2 Soil Sampling Results 4-5
4.2.3 Temporary Well Groundwater Samples 4-6
4.2.4 Groundwater Sampling (Monitoring Wells) 4-7
4.2.4.1 Effective Solubility Analysis 4-7
4.2.4.2 Methods and Data Analysis 4-8
4.2.4.3 Effective Solubility 4-9
4.2.4.4 Molar Fractions 4-9
4.2.5 Non-Aqueous Phase Liquid Level Measurements 4-10
4.3 Bedrock 4-10
4.3.1 Packer Groundwater Sampling 4-10
4.3.1.1 Effective Solubility 4-11
4.3.1.2 Molar Fractions 4-12
4.3.2 Groundwater Sampling (Monitoring Wells) 4-12
4.3.2.1 Effective Solubility 4-13
4.3.2.2 Molar Fractions 4-13
4.3.3 Non-Aqueous Phase Liquid Level Measurements 4-14
4.4 Cross-Sections 4-14
5 Conceptual Site Model (CSM) 5-1
6 Conclusions 6-1
6.1 Geology 6-1
6.2 Hydrogeology 6-1
6.3 NAPL Characterization 6-2
6.4 Direct NAPL Observations 6-3
6.5 Indirect NAPL Indications 6-3
6.5.1 Laser Induced Fluorescence 6-3
6.5.2 Effective Solubility 6-3
6.5.3 Molar Fractions 6-4
6.5.4 Total SVOCs 6-5
6.6 NAPL Extent Assessment 6-5
6.6.1 Shallow & Intermediate Water Bearing Zone – NAPL Extent and Mass 6-5
6.6.2 Bedrock Zone – NAPL Extent and Mass 6-7
7 References 7-1

Tables

Table 2-1	Summary of Packer Sample Intervals
Table 3-1	Summary of Heat Pulse Flow Meter Results
Table 3-2	Synoptic Water Level Elevations
Table 3-3	Vertical Hydraulic Gradients
Table 4-1	Relative Percent Difference – Packer Groundwater Samples
Table 4-2	Relative Percent Difference – Monitoring Well Groundwater Samples
Table 4-3	Relative Percent Difference – Soil Samples
Table 4-4	Correlating LIF to Hydraulic Conductivity
Table 4-5	Soil Sample Results (Detected Compounds)
Table 4-6	Correlating LIF, TPH, Total SVOCs, SVOC TICs, and NAPL Observations
Table 4-7	Temporary Wells Groundwater Sample Results (Detected Compounds)
Table 4-8	Monitoring Well Groundwater Sample Results (Detected Compounds)
Table 4-9	Molar Fractions and Effective Solubility Calculations
Table 4-10	Physical Properties of Chemicals used in Molar Fraction and Effective Solubility Calculations
Table 4-11	NAPL Observations
Table 4-12	Packer Groundwater Sample Results (Detected Compounds)
Table 5-1	Direct and Indirect Indications of NAPL
Table 6-1	Estimated SVOC Mass in Shallow and Intermediate Water Bearing Units
Table 6-2	Estimated SVOC Mass in Bedrock Water Bearing Unit

Figures

Figure 1-1 Site Location Map

Figure 2-1 LIF Boring Location Map

Figure 2-2 Bedrock Boring Location Map

Figure 2-3 Monitoring Well Location Map

Figure 3-1 Conceptual Diagram of the Susquehanna River Valley Geology

Figure 3-2 Soil Remediation Area During the Interim Remedial Action

Figure 3-3 Regional Geology of the Susquehanna River Valley

Figure 3-4 Generalized Geologic Cross-Section of the Susquehanna River Valley A-A’

Figure 3-5 Structural Contour Map of Kame Sand and Gravel Deposits

Figure 3-6 Structural Contour Map of Bedrock

Figure 3-7 Borehole Geophysical Log of SB-BR-04

Figure 3-8 Borehole Geophysical Log Summary Statistics

Figure 3-9 Lines of Geologic Cross Sections

Figure 3-10 Geologic Cross-Section A-A’

Figure 3-11 Geologic Cross Section A’-A”

Figure 3-12 Geologic Cross-Section B-B'

Figure 3-13 Geologic Cross-Section C-C'

Figure 3-14 Geologic Cross-Section C’-C”

Figure 3-15 Geologic Cross-Section D-D'

Figure 3-16 Geologic Cross-Section E-E'

Figure 3-17 Geologic Cross-Section E’-E”

Figure 3-18 Potentiometric Surface of the Shallow Water Bearing Unit

Figure 3-19 Potentiometric Surface of the Intermediate Water Bearing Unit

Figure 3-20 Potentiometric Surface of the Bedrock Water Bearing Unit

Figure 4-1 LIF Log for SB-BR-10

Figure 4-2 Total Semi-Volatile Organic Compounds and Total Semi-Volatile Organic Compound Tentatively Identified Compounds in Groundwater Collected from Monitoring Wells in the Shallow Water Bearing Unit

Figure 4-3 Total Semi-Volatile Organic Compounds and Total Semi-Volatile Organic Compound Tentatively Identified Compounds in Groundwater Collected from Monitoring Wells in the Intermediate Water Bearing Unit

Figure 4-4 Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Monitoring Wells Screened in the Intermediate Water Bearing Unit

Figure 4-5 Molar Fractions of Polycyclic Aromatic Hydrocarbon Compounds in Groundwater Collected from Monitoring Wells Screened in the Intermediate Water Bearing Unit

Figure 4-6 Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples Screened in the Bedrock Water Bearing Unit (1 of 5)

Figure 4-7 Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in the Bedrock Water Bearing Unit (2 of 5)

Figure 4-8 Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in the Bedrock Water Bearing Unit (3 of 5)

Figure 4-9 Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in the Bedrock Water Bearing Unit (4 of 5)

Figure 4-10 Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in the Bedrock Water Bearing Unit (5 of 5)

Figure 4-11 Molar Fractions of Polycyclic Aromatic Hydrocarbon Compounds in Packer Groundwater Samples in the Bedrock Water Bearing Unit (1 of 3)

Figure 4-12 Molar Fractions of Polycyclic Aromatic Hydrocarbon Compounds in Packer Groundwater Samples in the Bedrock Water Bearing Unit (2 of 3)

Figure 4-13 Molar Fractions of Polycyclic Aromatic Hydrocarbon Compounds in Packer Groundwater Samples in the Bedrock Water Bearing Unit (3 of 3)

Figure 4-14 Total Semi-Volatile Organic Compounds and Total Semi-Volatile Organic Compound Tentatively Identified Compounds in Groundwater Collected from Monitoring Wells in the Bedrock Water Bearing Unit

Figure 4-15 Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Monitoring Wells Screened in the Bedrock Water Bearing Unit

Figure 4-16 Molar Fractions of Polycyclic Aromatic Hydrocarbon Compounds in Groundwater Collected from Monitoring Wells Screened in the Bedrock Water Bearing Unit

Figure 4-17 Hydrogeologic Cross-Section A-A’

Figure 4-18 Hydrogeologic Cross-Section A’-A”

Figure 4-19 Hydrogeologic Cross-Section B-B’

Figure 4-20 Hydrogeologic Cross-Section C-C’

Figure 4-21 Hydrogeologic Cross-Section C’-C”

Figure 4-22 Hydrogeologic Cross-Section D-D’

Figure 4-23 Hydrogeologic Cross-Section E-E’

Figure 4-24 Hydrogeologic Cross-Section E’-E”

Figure 6-1 Potential Extent of NAPL in Shallow and Intermediate Water Bearing Unit

Figure 6-2 Hydrogeologic Cross-Section with NAPL A-A’

Figure 6-3 Hydrogeologic Cross-Section with NAPL A’-A”

Figure 6-4 Hydrogeologic Cross-Section with NAPL B-B'

Figure 6-5 Hydrogeologic Cross-Section with NAPL C-C'

Figure 6-6 Hydrogeologic Cross-Section with NAPL C’-C”

Figure 6-7 Hydrogeologic Cross-Section with NAPL D-D'

Figure 6-8 Hydrogeologic Cross-Section with NAPL E-E'

Figure 6-9 Hydrogeologic Cross-Section with NAPL E'-E"

Figure 6-10 Potential Extent of NAPL in Bedrock Water Bearing Unit

Appendices

Appendix A Wetlands Permit Equivalency Application

Appendix B EPA Region 2 Superfund Well Assessment Checklist

Appendix C High-Resolution Subsurface Characterization Using the Combination Optical Image Profiler with Hydraulic Profiling Tool (OiHPT) by S2C2

Appendix D Soil Boring and Rock Coring Logs

Appendix E Borehole Geophysical Logging by Hager-Richter Geoscience, Inc.

Appendix F Well Construction Diagrams

Appendix G Monitoring Well Sampling Purge Logs

Appendix H IDW Laboratory Analytical Data Reports

Appendix I IDW Disposal Documentation

Appendix J Analytical Laboratory Data

Appendix K Blank Laboratory Data

Appendix L Data Validation Reports

Appendix M QC Audit

Acronyms

%FA	percent fluorescence
µg/L	micrograms per liter
µg/mol	micrograms per mole
µmol/L	micromoles per liter
ACV	ACV Environmental Corporation
AMSL	Above Mean Sea Level
ATV	Acoustic Televiewer
bgs	below ground surface
BTEX	Benzene, toluene ethylbenzene, and xylene
CLP	Contract Laboratory Program
cps	counts per second
CRQL	Contract-Required Quantitation Limit
CSM	Conceptual Site Model
cy	cubic yard
DNAPL	Dense Non-Aqueous Phase Liquid
EC	Electrical Conductivity
EPA	United States Environmental Protection Agency
ERH	Electrical Resistance Heating
FS	Feasibility Study
ft/day	feet per day
ft/min	feet per minute
GCL	GCL Tie & Treating Superfund Site
GPRS	Ground Penetrating Radar Systems. Inc.
GWETS	Groundwater Extraction and Treatment System
HDR	Henningson, Durham & Richardson Architecture and Engineering, P.C.
HDR OBG JV	HDR OBG Joint Venture
HPFM	Heat Pulse Flow Meter
HPT	Hydraulic Profiling Tool
IC	Institutional Controls
IDW	Investigation Derived Waste
IROD	Interim Record of Decision
ISTR	In-Situ Thermal Remediation
K	Hydraulic Conductivity
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LIF	Laser Induced Fluorescence
LNAPL	Light Non-Aqueous Phase Liquid
lbs	pounds
LSASD	Laboratory Services and Applied Sciences Division
MA	Modified Analysis
MDL	Method Detection Limit
mL/minute	milliliters per minute
mm/s	millimeter per second
mS/m	milli-siemens per meter

NAPL	Non-Aqueous Phase Liquid
nm	nanometer
NPL	National Priority List
NYSDEC	New York State Department of Environmental Conservation
OBG	O'Brien & Gere
OiHPT-G	Optical Image Profiler with Hydraulic Profiler Tool with Green Laser Diode
OIP	Optical Imaging Profiler
OIP-G	Optical Imaging Profiler with Green Laser Diode
OTV	Optical Televiewer
OU	Operable Unit
OU3	Operable Unit 3
PAH	Polycyclic Aromatic Hydrocarbon
PCBs	Polychlorinated Biphenyls
PDI	Pre-Design Investigation
PID	Photoionization detector
psi	pounds per square inch
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QC	Quality Control
QL	Quantitation Limit
RA	Remedial Action
RAO	Remedial Action Objective
RAS	Routine Analytical Service
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
ROP	Rate of Penetration
RPD	Relative Percent Difference
RQD	Rock Quality Designation
S2C2	S2C2, Inc.
SEE	Steam Enhanced Extraction
Site	GCL Tie & Treating Superfund Site
SOW	Scope of Work
SQL	Sample Quantitation Limit
SVOCs	Semi-Volatile Organic Compounds
TCH	Thermal Conductive Heating
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TPH	Total Petroleum Hydrocarbons
TRZ	Target Remediation Zone
UFP	Uniform Federal Policy
USACE KC	United States Army Corps of Engineers Kansas City District

USCS	Unified Soil Classification System
VOCs	Volatile Organic Compounds

1 Introduction

1.1 Background

The Henningson, Durham & Richardson Architecture and Engineering, P.C. (HDR) and O'Brien & Gere (OBG) Joint Venture (HDR OBG JV) completed a Pre-Design Investigation (PDI) for the United States Army Corps of Engineers Kansas City District (USACE KC) to support Remedial Design (RD) activities for Operable Unit 3 (OU3) Non-Aqueous Phase Liquid (NAPL) remediation at the GCL Tie & Treating Superfund Site (GCL or Site) in Sidney, New York.

The Site is located at 140 Delaware Avenue in the Village of Sidney, Delaware County, New York near the Susquehanna River (**Figure 1-1**). The Site is generally flat, and the Site lies within the flood plain of the Susquehanna River.

The GCL property was originally developed in 1940 by the Delaware & Hudson Railroad Company as a railroad tie and treating facility that used creosote to treat railroad ties. Railcon Materials, Inc. acquired the property in 1979 and sold it to GCL Tie & Treating, Inc. in 1983. GCL Tie & Treating, Inc. was a wood treating company that maintained four former on-Site structures. The primary building housed the wood pressure treatment operations, including two treatment vessels, an office, and a small laboratory. Untreated railroad ties and creosote were placed into the vessels where the creosote would be pressurized into the wood. The other three structures housed a sawmill and storage space.

Creosote, which contains polycyclic aromatic hydrocarbons (PAHs), is known to have been released in large quantities into surface soils. The practice of drip-drying creosote-soaked lumber with no containment safeguards contaminated the soils over a large area of the Site. In 1986, one of the two treatment vessels inside the GCL process building malfunctioned causing a release of an estimated 30,000 gallons of creosote. The contaminated soil was excavated and placed in a mound on-Site; no further action was taken at the time. In 1987, the contents of a railroad car containing an estimated 18,000 to 45,000 pounds of creosote sludge and water contaminated with creosote was released onto the ground. Mounds of contaminated soils (4,800 cy) and wood debris (3,000 cy) were stockpiled on-Site. Several aboveground tanks and drums, holding approximately 20,000 gallons of creosote wastes and sludges, were also stored at the Site. The GCL property was abandoned in 1988.

In March 1991, the United States Environmental Protection Agency (EPA) completed a removal action at the Site. The removal action included:

- installing fencing;
- identifying and disposing of hazardous wastes (both containerized and non-containerized from drums, tanks and sumps);
- staging of contaminated soils and wood debris;
- removing 14,159 gallons of creosote from tanks and associated piping;

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- removing 500 gallons of creosote from floors, sumps, and other equipment; and
- conducting a pilot study to determine the effectiveness of using bioremediation composting of impacted soils.

In 1993-94, the EPA completed a Remedial Investigation/Feasibility Study (RI/FS). The RI/FS found that soils, groundwater, and sediments were contaminated with creosote and creosote byproducts, including the PAHs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-c,d)pyrene. Creosote, in the form of NAPL, was also discovered in monitoring well MW-3S. This source area contamination, in the form of a NAPL, continues to impact groundwater at the Site. Soil sample results showed numerous locations of high concentrations of PAHs. Locations with the highest concentrations of PAHs corresponded to areas in the vicinity of the former process building.

Currently, there is only one residential well within 0.5 mile of the Site and two municipal potable supply wells are located within 1.25 miles of the Site. None of these wells have been impacted by the Site contamination. Restrictions on the use of groundwater exist under the Village of Sidney Code Section 210.5 – Private Wells, which prevents the installation of potable wells. In addition, on March 31, 2015, EPA filed a deed notice in the Delaware County Clerk's office to assist in limiting exposure by notifying the public of the contamination remaining at the Site.

The Site was listed on the National Priorities List (NPL) in May 1994. EPA established three operable units (OUs) at the Site. A Record of Decision (ROD) for OU1 was issued on September 30, 1994, to remediate soil contamination at the Site. In 2000, the active remedial measures were completed, which included a grid excavation and an on-Site thermal desorption treatment of 109,000 tons of contaminated soils, sediment, and debris. In March 1995, the EPA signed the OU2 ROD which called for extraction, collection, and on-Site treatment of contaminated groundwater. In addition, the OU2 ROD included excavating and treating contaminated sediments on-Site through a thermal desorption process. The OU2 RD was completed in 2001 and in 2004 the construction of the OU2 remedial action (RA) was completed. The final OU, OU3, addresses the remaining source area contamination, namely NAPL, impacting groundwater at the Site. A ROD for an Interim Remedy for OU3 was signed on September 30, 2020.

1.2 OU3 Interim Remedy

The major components of the OU3 Interim Remedy as described in the 2020 Interim Record of Decision (IROD) for OU3 are:

- In-Situ Thermal Remediation (ISTR) in the Target Remediation Zone (TRZ), which includes the upper intermediate, deep intermediate and bedrock zones at the Site, and multiphase extraction using the existing groundwater extraction and treatment system (GWETS) with modifications. Thermal treatment will be accomplished using Thermal Conductive Heating (TCH), Steam Enhanced Extraction (SEE), Electrical Resistance Heating (ERH) or some combination of these technologies based upon a RD evaluation;

- Passive treatment and monitoring of naturally occurring NAPL depletion in the remaining portions of the TRZ;
- Institutional Controls (ICs) in the form of governmental controls and a pre-existing deed notice as an informational device.

The IROD states:

> This action is considered an interim remedy until EPA issues a final Site-wide remedy decision. EPA expects that this selected interim RA will be adequately protective of human health and the environment until a final remedy is selected for the impacted groundwater.

1.3 Scope of Work

The objective of this work assignment is to complete a PDI with a pilot study to support RD activities for the Site. The primary objective of the PDI is to define the horizontal and vertical extent of NAPL at the Site to support selection of the thermal treatment zone. Geologic, hydrogeologic, groundwater quality, and groundwater elevation data were also collected to support the RD. The objective of the pilot study is to collect data to support ISTR design targeting the fractured bedrock. The following field tasks were conducted during the PDI to achieve these objectives:

- Wetland Delineation;
- Geophysical Utility Mark-Outs;
- Optical Imaging Profiler (OIP) (Laser Induced Fluorescence [LIF] technology) Borings Coupled with a Hydraulic Profiling Tool (HPT);
- Bedrock Borings, Packer Groundwater Sampling, and Borehole Geophysical Logging;
    - Soil Sampling at Select Drilling Locations;
    - Temporary Well Groundwater Sampling at MW-22;
- Monitoring Well Installation and Development (including an overburden monitoring well and bedrock monitoring well);
- Water Level and NAPL Measurements in Monitoring Wells;
- NAPL Sampling;
- Groundwater Sample Collection from Monitoring Wells;
- Bench Scale NAPL Treatability Testing (not completed due to an inability to collect sufficient NAPL to perform bench scale treatability testing);
- Steam Injection Pilot Test (not completed to date); and
- Investigation Derived Waste (IDW) Management and Disposal.

2 Methods and Procedures

The PDI field program was completed between July 19, 2022, and January 17, 2023. Each activity is described below.

2.1 Wetland Delineation

A wetland permit equivalency application was completed to notify the New York State Department of Environmental Conservation (NYSDEC) that 15 direct push borings would be completed in a wetland and 16 direct push borings would be completed within the 100-foot area adjacent to the wetland. A wetland scientist delineated the wetland boundary on April 24, 2022, as part of the wetland permit equivalency application. The permit equivalency application is provided in **Appendix A**.

2.2 Geophysical Utility Mark-Outs

Ground Penetrating Radar Systems, Inc. (GPRS) performed geophysical services to identify subsurface utilities near proposed borehole locations. GPRS cleared a 5-foot diameter area surrounding each borehole location using ground penetrating radar, radio frequency, and metal detection methods.

2.3 Well Inventory and Assessment

A well inventory and assessment was completed to locate and assess the condition of existing monitoring wells. The survey included an inspection of the surface completion (protective casing and cement well apron) of each well to assess if it was damaged. The concentration of total Volatile Organic Compounds (VOCs) was monitored with a Photoionization Detector (PID) before the depth to groundwater and total depth was measured in each well. The EPA Region 2 Superfund Well Assessment Checklist was completed for each well (**Appendix B**).

The well inventory and assessment survey located 46 existing monitoring wells at the Site. Several monitoring wells showed signs of physical damage: One monitoring well, MW-03I, was not secure from run-off.

Seven monitoring wells had minor physical damage, either to its surface casing or concrete pad:

MW-02I	MW-11I	EW-1B	EW-3I
MW-03I	MW-21B	EW-2B	

Twelve monitoring wells had damaged or missing items including J-plugs, caps, internal well seals, or bolts:

MW-03S	MW-10I	MW-17I	EW-2I
MW-08DI	MW-11I	EW-1B	EW-4I

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MW-10B	MW-15B	EW-1I	EW-4B

Extraction wells EW-1B, EW-2B, and EW-4B contained pumping equipment. Repairs and replacement of damaged wells will be further evaluated during the RD. The findings from the well inventory and assessment survey indicate that all wells were in adequate condition to support the field activities and data acquisition efforts for the PDI. EPA Region 2 Superfund Well Assessment Checklist forms for each of these wells are provided in **Appendix B**.

2.4 Optical Imaging Profiler Borings

The presence of NAPL in subsurface soil was characterized at 36 locations by S2C2 Inc. (S2C2) using an OIP combined with HPT. The OIP provides a log of LIF measurements to assess the presence of free-phase and residual NAPL with depth. The OIP employed green laser diode (OIP-G). The green wavelength source was used to detect heavier hydrocarbons such as creosote. The OIP/LIF borings also included the use of a HPT which provides measurements of soil permeability, by injecting water and monitoring the pressure response with a transducer, and an electrical conductivity (EC) probe to provide measurements facilitating assessment of lithology type.

The combination profiling tool (OiHPT-G) was advanced in 36 locations, including 33 locations on the GCL-side of the railroad tracks and three locations to the northwest of the tracks on the property owned by ACCO. The ACCO property is located hydraulically down-gradient and geologically downdip of the GCL property (**Figure 2-1**). Thirty LIF locations were evenly spaced on GCL-side of the railroad tracks in the TRZ defined in the IROD, to further define the NAPL. Eight additional contingency LIF locations were drilled to fill data gaps.

Each location was hand-cleared to a depth of 5 feet below the ground surface (bgs) to make sure no subsurface utilities were encountered during drilling. OiHPT-G logging was performed at each location from the ground surface until refusal. Four borings were terminated at bedrock including: SB-LIF-02 (75 ft bgs), SB-LIF-04 (78 ft bgs), SB-LIF-07 (81 ft bgs), and SB-LIF-12 (81 ft bgs). Hollow-stem auger and drive and wash drilling techniques were used to pass through an obstruction or refusal at SB-LIF-12. Coring or drive and wash drilling techniques were used to pass through an obstruction or refusal at locations SB-LIF-2, SB-LIF-7, SB-LIF-8, SB-LIF-9, SB-LIF-10, SB-LIF-17, SB-LIF-18, and SB-LIF-25. These borings and the remaining locations were terminated due to refusal in dense glacial sediment (kame deposits) located below the fine-grained lacustrine deposits. S2C2's report is provided in **Appendix C**. SB-LIF-11 was redrilled from ground surface as a result of encountering an obstruction or refusal.

S2C2 processed the raw OiHPT-G field data to eliminate noise and provided the following data in log format:

- Induced fluorescence (recorded as percent-fluorescence [%FA]) indicative of the presence of creosote contamination;
- EC recorded in milli-Siemens per meter (mS/m) indicative of hydraulic conductivity, predominant soil grain-sizes, and lithologic changes;

- Rate of Penetration (ROP) (i.e., rate of boring advancement) recorded in feet per minute (ft/min); and
- HPT Pressure recorded in pounds per square-inch (psi) indicative of lower permeability (higher pressure) vs. higher permeability (lower pressure) lithology.

2.5 Bedrock Borings

Fifteen bedrock borings were drilled using sonic drilling technology during the PDI (**Figure 2-2**). Nine bedrock borings were evenly spaced on GCL-side of the railroad tracks in the TRZ defined in the IROD. Six of the 15 bedrock borings were located on the ACCO property. Three additional contingency bedrock borings were drilled to fill data gaps. Bedrock borings at SB-BR-08 and SB-BR-09 were not drilled at the locations outlined in the work plan. These two borings were drilled at contingency locations and given an alternative name (SB-BR-LIF16 and SB-BR-LIF18).

Each boring was hand cleared to five feet bgs to make sure no subsurface utilities were encountered during drilling. Each bedrock boring, except SB-BR-13, was drilled to a final depth of 160 feet. SB-BR-13 was drilled to 198 feet bgs to define the vertical extent of NAPL in this area.

SB-BR-01	SB-BR-06	SB-BR-13
SB-BR-02	SB-BR-07	SB-BR-LIF-16
SB-BR-03	SB-BR-10	SB-BR-LIF-18
SB-BR-04	SB-BR-11	SB-BR-LIF-22
SB-BR-05	SB-BR-12	SB-MW-22

Soil was sampled continuously from 5 feet bgs to the top of bedrock with a sonic core barrel system. Six-inch diameter sonic casing was advanced as the borehole was sampled until competent bedrock was encountered. Bedrock was then cored continuously from the top of competent bedrock to the total depth of the borehole with a 4-inch diameter, 10-foot sonic core barrel.

The soil samples were visually logged using Unified Soil Classification System (USCS), including grain-size distribution and color, by an on-Site geologist. Soil was screened for the potential presence of VOCs using a PID. The on-Site geologist logged rock type, grain size, bedding, and color of bedrock core. Rock Quality Designation (RQD) was not logged due to the abundance of mechanical fractures introduced from the sonic drilling method. The soil boring logs and rock coring logs are provided in **Appendix D**.

A total of 123 soil samples, plus 10 field duplicates, were collected at intervals with indications of NAPL or at 10-foot intervals through the soil column. Samples were submitted for laboratory analysis of Target Compound List (TCL) VOC and TCL semi-volatile organic compounds (SVOCs). Twenty-six additional soil samples were collected with an Encore™ sampling device. One Total Petroleum Hydrocarbon (TPH) sample was collected per borehole where direct evidence of NAPL was observed, or if no evidence was observed, within fine sand intervals where NAPL was more likely to be

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present based on observations from other boreholes. Two samples were collected from SB-BR-LIF18 where indications of NAPL were observed.

Sixty-one packer groundwater samples, plus field four duplicate samples, were collected from the bottom of the 6-inch surface casing to the total depth of borehole. In general, groundwater samples were collected at 20-foot intervals in competent rock (exceptions noted on data tables) using a double packer assembly. In weathered or highly fractured bedrock where borehole collapse on the packer assembly was a possibility, groundwater samples were collected at 10-foot intervals by drilling ahead and then pulling the Sonic casing back to expose 10-feet of open borehole for sample collection.

Open hole groundwater samples (not using packers) were collected using the following protocol:

- Evacuate 1 volume of water in drill string and in open hole;
- Evacuate 2 additional volumes of water from open hole before sampling; and
- If groundwater in open hole intervals was pumped to the bottom of the open hole interval (i.e., pumped near dry), groundwater was allowed to recharge before sampling.

Packer assembly groundwater samples were collected using the following protocol:

- Evacuate 1 volume of groundwater from packer riser pipe and packer interval;
- Evacuate 2 additional volumes of groundwater from packer interval before sampling; and
- If groundwater in the packer interval was pumped to the bottom of the packer interval (i.e., pumped near dry), groundwater was allowed to recharge before sampling.

Groundwater samples for VOCs and SVOCs were collected through the pump according to the Uniform Federal Policy (UFP) Quality Assurance Project Plan (QAPP). Groundwater recharge was very slow in some packer intervals. If groundwater recharge was very slow, VOC samples were collected first. If there was sufficient water after the collected of VOC samples, SVOC samples were collected. Data summarizing the volume of water purged from each sample interval are included on **Table 2-1**. Groundwater samples were sent to Contract Laboratory Program (CLP) Lab for VOC and SVOC analysis. Quality Control (QC) samples, including trip blanks, field blanks, and equipment blanks, were collected or prepared for groundwater samples following the QAPP.

In addition, groundwater samples were collected at 10-foot intervals from 20 feet bgs to 115 ft bgs using temporary wells during the drilling of the borehole for MW-22B. Each sample was collected by drilling to a target depth, lowering a temporary well through the drilling rods to the bottom of the borehole, and pulling back the rods to expose the well screen. Groundwater was purged and sampled from inside the temporary well. These samples were sent to a CLP lab for VOC analysis.

Groundwater samples were collected after fulfilling the following protocol:

- Evacuate 1 volume of water in drill string and in open hole;
- Evacuate 2 additional volumes of water from open hole before sampling; and
- If groundwater in open hole intervals was pumped to the bottom of the open hole interval (pumped dry), groundwater was allowed to recharge before sampling.

IDW generated during bedrock drilling was staged in the soil roll-off or fractionation tank for disposal. The boreholes were abandoned by filling them with cement grout using the tremie method.

2.6 Geophysical Logging

Borehole geophysics was completed in 14 of the 15 bedrock borings to characterize the subsurface conditions in the bedrock zone using:

- Optical televiewer (OTV) imaging to photograph all sides of the borehole;
- Acoustic televiewer (ATV) amplitude and travel times to image the sides of the borehole to locate fractures in the bedrock;
- Acoustic caliper logging to locate fractures in the bedrock based on borehole width;
- Natural gamma ray logging to determine changes in lithology;
- Fluid temperature and conductivity to assess if there were indications of groundwater flow in potentially active fractures; and
- Heat pulse flow meter (HPFM) logging (under ambient and pumping conditions) to determine groundwater flow in fractured bedrock.

Borehole geophysics logging was not conducted at SB-BR-03 because there was steel casing to 150 feet bgs. Borehole geophysical logs are provided in **Appendix E**.

2.7 Well Installation

Two monitoring wells (MW-22I and MW-22B) were drilled, installed, and developed during the PDI (**Figure 2-3**). Sonic drilling technology was used to advance the boreholes through soil and bedrock.

Prior to the construction of monitoring well MW-22I, the borehole was filled from 50 to 60 feet bgs (total drilled depth) with neat cement grout using a tremie pipe. The grout was allowed to cure for 24 hours before construction activities began. Monitoring well MW-22I was constructed with 10-feet of 2-inch diameter 0.010-inch continuous slot (i.e., wire-wrap) stainless steel screen installed from 40 to 50 feet bgs and sufficient 2-inch diameter stainless steel casing to reach ground surface. Filter sand (No. 1) was placed around the well screen from the bottom of the boring to two feet above the top of the screen (38 feet bgs – 50 feet bgs). A bentonite pellet seal was placed from 36 to 38 feet bgs. Grout was tremied into the annulus from the top of the bentonite seal to the ground

surface. The surface was completed as a 3-foot conventional stick-up protective steel casing and a concrete pad.

Prior to constructing monitoring well MW-22B, the borehole was filled from 130 feet to 160 bgs (total drilled depth) with cement grout using a tremie pipe. A bentonite pellet chip seal was placed above the grout from 128 to 130 feet bgs. After waiting 24-hours for the grout to harden, monitoring well MW-22B was constructed with 10-feet of 2-inch diameter 0.010-inch continuous slot (i.e., wire-wrap) pre-packed stainless-steel screen installed from 117 feet to 127 feet bgs and sufficient 2-inch diameter steel casing to reach ground surface. The well screen was pre-packed with sand from 116 to 128 feet bgs. Filter sand (No. 1) was placed around the pre-packed well screen from the bottom of the boring to two feet above the top of the screen (116 feet bgs – 128 feet bgs). A three-foot-thick bentonite pellet seal was placed from the top of the filter pack (113 feet bgs – 116 feet bgs). Grout was tremied in the annulus from the top of the bentonite seal to the ground surface. The surface was completed as a 3-foot conventional stick-up steel protective casing and a concrete pad. Well construction diagrams are presented in **Appendix F**.

The monitoring wells were developed by purging and surging at a development rate of approximately one gallon per minute until the purge water ran clear.

- MW-22I - 200 gallons were removed from the well, which equates to 13 well volumes.
- MW-22B - 86 gallons were removed from the well, which equates to 4.5 well volumes.

Less groundwater was pumped from MW-22B than MW-22I due to the slow recharge of groundwater during well development.

The depth of the well screen for MW-22I was selected to correspond to the highest concentration of SVOCs from the temporary well groundwater sampling. The depth of the well screen for MW-22B was selected to correspond to the highest concentration of SVOCs from the packer groundwater sampling.

Soil cuttings generated during the well installations were staged in the soil roll-off for disposal. Groundwater pumped from the monitoring wells was pumped into a fractionation tank to stage for proper disposal.

2.8 Groundwater Level Measurements

One round of water levels was measured in 48 monitoring wells from November 10-14, 2022. Groundwater levels were measured in the following wells:

EW-1I	MW-02S	MW-07D	MW-11I	MW-15I	MW-21I
EW-2I	MW-03B	MW-07I	MW-12B	MW-17B	MW-22I
EW-3I	MW-03I	MW-07S	MW-12I	MW-17I	MW-22B
EW-4I	MW-03S	MW-08B	MW-13B	MW-17S	PZ-01I
EW-5I	MW-05D	MW-08DI	MW-13I	MW-18B	PZ-01S
MW-01D	MW-05I	MW-10B	MW-14B	MW-19B	PZ-02I
MW-01S	MW-05S	MW-10I	MW-14I	MW-20B	PZ-02S
MW-02I	MW-07B	MW-11B	MW-15B	MW-21B	PZ-03S

Well locations are shown on **Figure 2-3**. The water levels in MW-22I and MW-22B were measured on January 12, 2023, as these wells were not installed at the time of the synoptic water levels. Water level was measured in MW-18B on January 11, 2023, as this well was not located at the time of the synoptic water levels in November 2022. Water level for EW-3I was measured on February 14, 2023.

Groundwater levels were measured by removing the well cap, monitoring headspace with a PID, and lowering an electronic water level measuring device into the well until the audible alarm sounded. If NAPL was observed, it was noted in the log. Depth to groundwater was measured to the nearest 0.01 foot from the top of the well casing. An interface probe was used to measure the depth to NAPL in wells; however, after the probe was repeatedly lowered to the bottom of Well-07B without any audible indication of NAPL and the probe returned to the operator coated in NAPL, it was determined that the probe was not capable of detected the NAPL at GCL.

2.9 Monitoring Well Sampling

Groundwater samples were collected from 31 monitoring wells listed in the subsequent paragraph. Groundwater was sampled according to USEPA Region II Low-Flow Groundwater Sampling Protocol as specified in the UFP-QAPP (HDR OBG JV, 2022). Purge logs are provided in **Appendix G**. All groundwater samples were analyzed for TCL VOCs and TCL SVOCs. Samples collected from three wells (MW-12I, MW-12B, and MW-17B) were also analyzed for alkalinity, nitrate, nitrite, hardness, sulfate, 1,4-dioxane, and 8 Resource Conservation and Recovery Act (RCRA) metals according to the QAPP.

EW-1I	MW-02I	MW-11I	MW-20B
EW-2I	MW-03I	MW-11B	MW-21I
EW-3I	MW-07S	MW-12I	MW-21B
EW-4I	MW-07I	MW-12B	MW-22I
EW-5I	MW-08DI	MW-13I	MW-22B
MW-01S	MW-08B	MW-13B	PZ-01I
MW-01D	MW-10I	MW-17B	PZ-03S
MW-02S	MW-10B	MW-19B	

Three wells (EW-1B, EW-2B, and EW-4B) were not sampled due to obstructions inside the well. Eight wells (MW-03B, MW-07D, MW-07B, PZ-02S, MW-03S, MW-17S, PZ-02I, and MW-178) were not sampled due to NAPL in the well. One additional well (MW-18B) was not sampled. It was not located during the synoptic groundwater sampling event. Once it was located, it was found to contain NAPL and, therefore, not sampled. Groundwater samples were collected from MW-22I and MW-22B in January 2023 as these well were not installed until after the synoptic groundwater sampling event. QC Samples including trip blanks, field blanks, and equipment blanks were collected according to the QAPP.

2.10 NAPL Bench-Scale Testing/Steam Injection Pilot Study

Bench-scale treatability testing of NAPL samples and a steam injection field pilot study had been planned as part of the PDI work. However, field observations and measurements during the PDI activities indicated that very little measurable NAPL was present at the Site. NAPL was primarily observed as sheens or very small, suspended globules in a few monitoring wells. Three different NAPL collection attempts were made

from where NAPL was historically observed (November 2022, January 2023, and May 2023) during the course of the PDI field work, with the result that an aggregate volume of less than 0.5 gallons of NAPL was collected. This quantity was insufficient for performing the planned bench-scale treatability testing, so the testing was not conducted. Also, a steam injection field pilot study has not been conducted to date. Further consideration for the necessity and location(s) of steam injection pilot testing (as well as NAPL bench-scale treatability testing) will be conducted in conjunction with project team review of the findings from the PDI work conducted to-date, as documented in this report.

2.11 Management of Investigation-Derived Waste

ACV Environmental Corporation (ACV) managed and disposed of all IDW for the PDI in accordance with local and Federal regulations. Solid and liquid waste material was temporarily stored in the containment area. ACV mobilized one 20,000-gallon fractionation tank and one roll-off container. ACV set up a fenced in staging area and secondary containment for the roll off and fractionation tanks.

Roughly 9,445 gallons of water, 37,040 pounds of soil waste, and 15 drums of solid waste were generated during the PDI field investigation. One composite soil and one aqueous waste characterization sample were collected and analyzed at ACV's subcontract laboratory (York Labs).

Solids

- VOCs, Toxicity Characteristic Leaching Procedure (TCLP) RCRA List (USEPA 8260C/1311)
- SVOCs, TCLP RCRA Target List (USEPA 8270D/1311)
- Pesticides, TCLP RCRA List (USEPA 8081B/1311)
- Polychlorinated biphenyls (PCBs) (USEPA 8082A)
- Herbicides, TCLP RCRA (USEPA 8151A/1311)
- Metals, TCLP RCRA (USEPA 6010D/1311)
- Mercury, TCLP (USEPA 7470/1311)
- Corrosivity (pH), SM 4500/USEPA 9045D (USEPA 9045D)
- Reactivity-Cyanide (USEPA SW-846 CH.7.3.3)
- Reactivity-Sulfide (USEPA SW-846 CH.7.3.4)
- Temperature (USEPA 170.1)
- Ignitability (USEPA 1030P)
- Total Solids (SM 2540G)

Water

- VOCS, TCLP RCRA List (USEPA 8260C/1311)
- SVOCS, TCLP RCRA Target List (USEPA 8270D/1311)
- Pesticides, TCLP RCRA List (USEPA 8081B/1311)
- PCBs (USEPA 8082A)
- Herbicides, TCLP RCRA (USEPA 8151A/1311)
- Metals, TCLP RCRA (USEPA 6010D/1311)
- Mercury, TCLP (USEPA 7470/1311)
- Corrosivity (pH), SM 4500/USEPA 9045D (SM 4500 H+B)
- Reactivity-Cyanide (USEPA SW-846 CH.7.3.3)
- Reactivity-Sulfide (USEPA SW-846 CH.7.3.4)
- Temperature (USEPA 170.1)
- Flashpoint (USEPA 1010A)

Analytical results indicated that all waste material generated during the PDI field investigation was non-hazardous. Copies of the laboratory data reporting sheets are provided in **Appendix H**. The waste was transported to an EPA-approved facility for disposal. All soil and water IDW were transported to Cycle Chem (NJD002200046) located in Elizabeth, New Jersey. All IDW was transported with proper documentation (**Appendix I**).

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3 Geology and Hydrogeology

3.1 Geology

3.1.1 Regional Geology

The town of Sidney is in a low-lying, relatively flat flood plain of the Susquehanna River Valley. Sidney is bordered to the east, south and west by moderately rolling, hilly terrain. Elevations range from approximately 960 feet above mean sea level (AMSL), along the Susquehanna River, to approximately 1,800 feet AMSL, northwest of Sidney.

Sidney is located within the glaciated Appalachian Plateau Physiographic province (Coon, et al., 1998; Wolcott and Coon, 2001). The general landscape developed when an ice sheet encroached on the area during the last stage of continental glaciation, which ended some 10,000 to 15,000 years ago at the end of the Pleistocene Epoch. Glacial erosion in the Sidney area widened the Susquehanna River Valley and rounded the mountains to the east and west to form the large rolling hills characteristic of the region today. The retreat of the glaciers resulted in the deposition of various types of glacial sediments.

The GCL site lies approximately 4,000 ft southeast of the Susquehanna River. Geologic conditions underlying the site consist of complex heterogeneous mixture of unconsolidated Pleistocene deposits. The glacial deposits are underlain by Upper Devonian age Oneonta Formation consisting of shale, sandstone, and conglomerate sedimentary rock. The geologic history of this area is depicted in the USGS Site Investigations Report 2012-5282 (Heisig, 2013). A conceptual diagram of the glacial deposits in this area of the Susquehanna River Valley is shown on **Figure 3-1**. The Site is underlain by fill material; Lacustrine Sand, Silt, and Clay; Kame Sand and Gravel, and bedrock. Each deposit is described in the subsequent paragraphs.

3.1.2 Local Geology

3.1.2.1 Fill Material

Sandy/gravely fill that is loose with low plasticity is present from ground surface to a variable depth (generally present from 0-20 feet bgs). These materials were used to back fill the soil excavated during the OU1 Interim RA completed in 2000 (**Figure 3-2**).

3.1.2.2 Lacustrine Sand, Silt, and Clay

Lacustrine Sand, Silt, and Clay deposits underlie the fill material at the Site or occur at the ground surface in those areas not excavated during the OU1 Interim RA. These include deposits of thinly to massively bedded silt, fine to coarse sand, gravel, and some clay. These materials are lake-bottom deposits (bottomset beds) of proglacial lakes that formed as result of the temporary dams created by down valley ice-contact features such

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as terminal moraines. The coarser grained deposits are higher energy stream bed deposits.

At the Site, these deposits range from 30 to over 100 feet thick with an average of 75 feet thick. The lacustrine deposits are often present in a fining upward sequence as shown on the EC logs from the LIF plots (**Appendix C**). Regional studies (USGS Site Investigations Report 2012-5282) have mapped these deposits at the Site as shown on **Figure 3-3**. A geologic cross-section of the Susquehanna River Valley just down-gradient of the GCL site showing the stratigraphic position of the kame deposits is provide on **Figure 3-4**.

3.1.2.3 Kame Sand and Gravel

Kame Sand and Gravel (ice contact) deposits were detected beneath the Lacustrine Sand, Silt, and Clay at the Site. These kame deposits are composed of a very dense mixture of poor to moderately sorted sand, gravel, and silt, and were deposited on the Susquehanna Valley wall along the margins of melting glacial ice. The horizontal hydraulic conductivity of the kame deposits varies widely and can be higher or lower than the overlying lacustrine deposits. The depth of the kame deposits can be identified on the boring logs by a physical color change from yellow brown to reddish-brown and on EC logs as a sharp change in hydraulic conductivity and an increase in variability (or noise). The contour map of the surface of kame deposits at the Site has been depicted as **Figure 3-5**. The surface is irregular and generally slopes from the valley wall (southeast) toward the Susquehanna River (northwest) or from GCL toward ACCO property.

Kame deposits were previously interpreted as glacial till. However, given the high hydraulic conductivity of these deposits as indicated on the EC logs, they have been re-interpreted as kame deposits. This interpretation is consistent with the USGS Site Investigations Report 2012-5282.

3.1.2.4 Bedrock

Bedrock in the study area consists of shale, sandstone, and conglomerate sedimentary rock of Upper Devonian age Oneonta Formation (Rickard and Fisher, 1970; Fisher and others, 1970). The bedrock dips gently to the south at a rate of 10 to 40 feet per mile (ft/mi) (Coates, 1981). Gentle east- and northeast-trending folds are also present, with dips of less than 1 degree (Coates, 1981; Wedel, 1932).

A contour map of the competent bedrock surface elevation at GCL is depicted as **Figure 3-6**. The surface is irregular and slopes from southeast to northwest or from GCL towards ACCO property. An incised valley in the surface is also evident at the GCL property; trending from SB-LIF-26 towards MW-3B and MW-7B.

3.1.3 Borehole Geophysics

Geophysical logging was completed in bedrock boreholes to evaluate subsurface lithology and identify locations of water-bearing fractures. Geophysical logs were created from data collected using the fluid temperature and conductivity probes, ATV, OTV, gamma ray log, and HPFM. An example of a geophysical log for borehole SB-BR-04 is included as **Figure 3-7**. Logs for all boreholes are included in the report generated

by Hagar-Richter Geoscience, Inc., which is included as **Appendix E**. The result of each probe is presented in vertical tracks on the geophysical log: Track 1 (starting from the left) presents the results from the OTV imaging. Track 2 presents the results from the ATV imaging. Track 3 presents the ATV travel time. Track 4 presents the acoustic caliper log and tadpole plots. Track 5 presents the natural gamma ray results. Track 6 presents the fluid temperature and conductivity results and Track 7 represents the HPFM testing results. Each geophysical tool that was used to log the geophysical characteristics of each borehole are described in the subsequent paragraphs.

3.1.3.1 Acoustic & Optical Televiewer

An ALT QL40-ABI-2G ATV probe was used to acquire a high resolution, effectively continuous 360º acoustical image of the borehole wall using the reflected signal of sound waves. The probe operates by measuring the amplitude and travel time of the reflected signal of sound waves in the ultrasonic frequency range. The probe includes a three-axis magnetometer and three-axis accelerometer to orient the image to true north and to provide borehole deviation data that correct structure orientations from apparent to true orientations. Both amplitude and travel time of the reflected signal were recorded and used to detect bedrock structures such as fractures, foliation, and bedding.

An ALT OBI-40 OTV probe was used to acquire a continuous high resolution 360º optical image of the borehole wall. The data were used to determine the borehole diameter and to detect the location of fractures along the borehole wall. The image was used to detect bedrock structures such as fractures, foliation, and bedding. The probe includes a three-axis magnetometer and three-axis accelerometer to orient the image and to provide borehole deviation data that are used to correct structure orientations from apparent to true orientations.

The OTV and ATV tracks shown on the left side (Tracks 1 & 2) of **Figure 3-7** can be used to identify locations of fractures in the borehole. The ATV amplitude and ATV travel time track can be used to identify the orientation of fractures and geologic features (fractures, bedding, foliation, veins, and other planar geologic features). These are reported as the amplitude, dip azimuth (dip direction) and dip angle of each structure, using the symbol shown in the symbol legend at the top of the figure. The change in fracture dip is indicated by the colored sinusoidal waves shown in the ATV travel time track of the plot. These lines represent the planar structure of the fracture "unwrapped" as it passes through the borehole. Both the left and the right portions of the wave shown represent true north side of the borehole, while the middle portion indicates south. The amplitude of the sinusoidal line is indicative of the degree of the fracture dip. A horizontal line represents a fracture dip of near zero degrees.

The dip angle is represented by the colored symbols (referred to as tadpoles) in Track 4 (**Figure 3-7**). A position at the far left indicates a horizontal fracture (0º dip angle), while a position to the far right indicates an angle of 90º. The line (tail) emanating from the tadpole indicates the azimuth of the fracture or bedding features. Like a needle on a compass, a line directed straight up represents north, straight to the right represents east, straight to the left represents west, and straight down represents south. In addition to this information, the color of the symbol denotes properties of the fracture and corresponds to the colored sinusoidal lines presented in Track 3. Fracture Rank 1

consists of minor fractures that are not distinct and may not be continuous around the borehole. Fracture Rank 2 consists of intermediate fractures that are distinct and continuous around the borehole with little or no apparent aperture. Fracture Rank 3 consists of major fractures that are distinct and continuous around the borehole with apparent aperture. The bedding category consists of planar geologic structures in the bedrock interpreted as bedding.

3.1.3.2 Natural Gamma Ray

A Mount Sopris 2PGA-1000 poly-gamma probe was used to produce natural gamma ray logs and evaluate the lithology surrounding the borehole. The probe uses a sodium iodide crystal that produces a pulse of light when struck by a gamma ray. Data is expressed in counts per second (cps). Sands tend to produce lower cps values as they are normally low in radioactivity, whereas clays (or rock comprised of significant amounts of clay such as shales and siltstone), in which radioactive minerals tend to accumulate, produce much higher cps values. The most common emitters of gamma radiation are uranium-238, thorium-232, their daughter elements, and potassium-40. These radioactive elements are concentrated in clays by adsorption, precipitation, and ion exchange. Fine-grained sediments such as shale or siltstone usually emit more gamma radiation than sandstone, limestone, or dolostone.

Track 5, the natural gamma ray log, shows a vertical profile of radioactivity (**Figure 3-7**). These results can be used to understand changes in lithology. The magnitude and colors of the bars depict the amount of radioactivity. In general, the darker the color, the less radioactivity is present. Hence, sands which exhibit little radioactivity are depicted by shorter bars and dark colors, while clay and silt materials, which have greater radioactivity, are depicted by larger bars and lighter colors. These data show the portions of bedrock that are indicative or sandstone and siltstone. Darker blue portions of the log represent a lower gamma response, indicative of sandstones, and lighter blue portions of the log represent a higher gamma response, indicative of siltstones. The gamma logs show the upper few feet of bedrock generally has a low gamma response indicative of sandstone. The gamma response for the remainder of the borehole on many logs is indicative of transitions between varying amount of sandstone and siltstone.

3.1.3.3 Fluid-Temperature and Resistivity

A Mount Sopris QL40-FTC fluid temperature and conductivity/resistivity probe was used for the fluid temperature logging. The temperature sensor is a semiconductor device that correlates voltage with temperature. The temperature of the borehole fluid as a function of depth is calculated and provides one line of evidence for evaluating flow into or out of a borehole. A change in slope of the fluid temperature or electrical conductivity can be an indication of an active bedrock fracture.

Track 6 (**Figure 3-7**), fluid temperature and conductivity under ambient (non-pumping) conditions, and HPFM results under ambient and pumping conditions, provide the flow characteristics of the borehole. Testing initially was performed under ambient conditions, without inducing flow in the open borehole. These results are designated by the blue line in the seventh track (HPFM portion) in **Figure 3-7**. After these

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measurements were completed, a low flowrate was produced by constant-rate pumping to evaluate flow under stressed conditions (designated by the red line in the HPFM section of the figure). The depths at which flowrates were measured are depicted by the blue and red squares shown at various intervals on the two lines. Although flowrates are measured at several discrete locations, conductivity and temperatures are measured continuously along the length of the borehole. Visual changes in slope these measurements provide additional lines of evidence as to the depth at which groundwater flow into the borehole is occurring. The results of the temperature and conductivity logs are presented in **Appendix E**.

3.1.3.4 Heat Pulse Flow Meter

Borehole flow was measured using a Mount Sopris HFP-2293 HPFM as displayed on Track 7 (**Figure 3-7**). The HPFM continuously measures the vertical rate and direction of fluid flow in a borehole. A heating element heats a thin sheet of water in a short time interval (less than 0.05 seconds), and, if vertical flow is present, the sheet of water moves through the borehole (up or down) in the direction of flow. Temperature sensors located at known distances above and below the heating element monitor the differential temperature of the borehole fluid. The time required for the sheet of heated water to reach one of the sensors is measured and used to calculate the vertical flow rate. Depths where water flows into and out of the borehole can be interpreted based on changes in the vertical flow rate and/or direction.

HPFM testing initially was performed under ambient conditions, without inducing flow in the borehole. After these measurements were completed, a low flow rate was produced by constant-rate pumping to evaluate flow under stressed conditions. The constant-pumping was induced using a Typhoon® submersible pump. HPFM data were summarized on **Table 3-1**.

3.1.3.5 Geophysical Statistical Compilation

In addition to the geophysical log data presented in **Figure 3-7**, post-processed bedrock bedding and fracture measurements were compiled in **Figure 3-8**. The statistical plots are comprised of bedding and fracture measurements placed on a stereogram (Schmidt Plot), rose diagram and dip angle histogram to convey bedrock structural behavior. Additionally, an aggregate bedrock fracture and bedding plot was constructed, on which all of the information was compiled to convey the overall structural framework of bedding and fracture planes within the area of investigation.

The Schmidt Plot is used to depict structural dip. The plot is oriented like a compass, with north (zero degrees) at the top. The magnitude of the dip is zero at the center and increases to 90º at the outer boundary. Fractures and bedding planes shown at the center indicate little or no dip, whereas those located near the outer boundary would be indicative of a near vertical fracture. Points located on an imaginary line between the center and the 0º value, indicate a dip to the north, points located on an imaginary line from the center to the 90º mark indicate a dip to the east, and so on around the circle. As can be seen from the Bedrock Bedding Schmidt Plot on the right side of **Figure 3-8**, the geologic intervals defined as bedding planes (i.e., an interval that separates one interval of rock from another) are focused at the center indicating that they are nearly

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horizontal, consistent with the ATV data. Fractures, shown on the Schmidt Plot located on the right left of **Figure 3-8**, also are mostly centrally located; however, there is greater variability than observed for the bedding fractures.

The Rose Diagram plots are a type of circular histogram that show the frequency of azimuthal data. The diagrams shown in **Figure 3-8** depict north at the top and lines representing 15º azimuth increments. Frequency numbers are indicated by the concentric rings, with zero in the center and the greatest frequency shown at the outermost ring (i.e., 36 in the bedding diagram and 45 in the fracture diagram). Each shaded interval represents the number of occurrences of either bedding (rightmost Rose Diagram) or fractures (leftmost Rose Diagram). As shown in **Figure 3-8**, there is a predominance of bedding and fracture dips oriented to the north-south with a lesser amount of fracture dips oriented to the southwest and northeast. There is a greater variability in the azimuths of fractures than that of the bedding planes. Note though that because the bedding planes and to a lesser extent the fractures are dipping at or near horizontal in many instances, bedding plane dip plots placed on the rose diagram vary widely. This is largely because a dip angle less than 5 º to 10 º can have a wide variation in dip direction due to its near horizontal orientation.

The last statistical plot in **Figure 3-8** is a dip angle histogram for bedding and fracture planes. The bedding plane dip histogram data plot shows that approximately 286 data points representing dip azimuth have a mean dip of four degrees from horizontal. The fracture plane dip histogram data plot suggests approximately 35% of the fractures in bedrock are five degrees or less and that a larger proportion of the fracture dip angle data collected is greater than five degrees. A very small subset of fractures exhibits steep dip angles ranging from 50º to 90º (i.e. vertical).

3.1.4 Geologic Cross-Sections

The geology at GCL has been depicted in five geologic cross-sections. The location of the lines of cross-sections is shown on **Figure 3-9** and the five geologic cross-sections are shown on **Figures 3-10 through 3-17**. Two cross-sections are oriented in a northwest-southeast direction and three cross-sections are oriented 90 degrees to the two cross-sections in a southwest-northeast direction.

- Cross-Section A-A” is orientated in a southwest to northeast direction. The cross-section extends through an area containing NAPL in the lacustrine deposits and in bedrock on GCL property. The cross-section is aligned cross-gradient to groundwater flow.
- Cross-Section B-B’ is oriented in a northwest to southeast direction. The cross-section extends through an area potentially containing NAPL in bedrock on GCL and ACCO property. The cross-section is aligned in the general direction of groundwater flow.
- Cross-Section C-C’ is located to the northeast of Cross-Section B and is oriented in a southeast to northwest direction. The cross-section extends through an area containing NAPL in bedrock wells on GCL (MW-03B) and

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ACCO property (MW-07B). The cross-section is aligned in the general direction of groundwater flow.

- Cross-Section D-D' is oriented in a southwest to northeast direction. The cross-section extends through an area containing NAPL in bedrock on the southeastern side of ACCO site (near railroad tracks). The cross-section is aligned cross-gradient to groundwater flow.

- Cross-Section E-E" is oriented in a southwest to northeast direction. The cross-section extends through an area containing NAPL in the lacustrine deposits and bedrock along the northeastern boundary of GCL Site (near railroad tracks). The cross-section is aligned cross-gradient to groundwater flow.

The geology shown on these figures has been grouped into four categories including fill material (green); Lacustrine Sand, Silt, and Clay (various shades of brown); Kame Sand, Gravel (blue); fractured bedrock (hatched grey) and bedrock (grey). The Lacustrine Sand, Silt, and Clay has been further grouped into three sub-groups:

- silt and clay;
- medium to coarse sand; and
- gravel and cobbles.

3.2 Hydrogeology

The primary water-bearing units at the site are the:

- shallow watering bearing unit from zero to 25 feet bgs consisting of Lacustrine Sand, Silts, and Clay;

- intermediate water bearing unit from 25 feet bgs to top of bedrock roughly 90 feet bgs consisting of Lacustrine Sand, Silts, and Clay and Kame Sand and Gravel; and

- deep water bearing unit from the top of bedrock to 160 feet bgs except at SB-BR-13 where the deep water bearing unit has been shown to extend to 198 ft bgs.

Groundwater or the water table was encountered from about 6 to 20 feet bgs at the site.

The hydraulic conductivity of the Lacustrine Sand, Silts, and Clays ranges from less than 1 to 150 feet per day with an average equal to 30 feet per day as depicted on the EC logs. This wide range in horizontal hydraulic conductivity could be due to the wide range of deposits extending from silt to sand to gravel. It should be noted that EC is a method that correlates the electrical conductivity of the soil to a predominant soil grain-size that is then assigned a hydraulic conductivity. The hydraulic conductivity values on the EC logs are not a direct measurement of hydraulic conductivity. Therefore, there is some uncertainty with the hydraulic conductivity measurements. The hydraulic conductivity of the Kame Sand and Gravel ranges from less than 10 to 150 feet per day with an average equal to 60 feet per day as depicted on the EC logs. The horizontal hydraulic conductivity of the Kame Sand and Gravel varies widely and can be higher or

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lower than the overlying lacustrine sediments due to the varying grain size common in kame deposits.

Water levels were measured on November 10-14, 2022 (**Table 3-2**) supplemented with three water levels measured on January 11-12, 2023, and one water level measured on February 14, 2023. These data were used to draw potentiometric surface maps for the shallow, intermediate, and deep water bearing units. Groundwater in the shallow water bearing unit flows to towards MW-03S. The potentiometric surface is depicted on **Figure 3-18**. Groundwater flow on the GCL property is to the north-northwest as shown by the water levels in MW-01S, PZ-01S, MW-02S, PZ-02S, and MW-03S. Groundwater flow on ACCO property is to the south-southeast based on water levels measured in MW-07S and PZ-03S compared to water levels measured on GCL property including MW-02S, PZ-02S and MW-03S. It should be noted that there is an inherent level of uncertainty to water level measurements and inferred groundwater flow in low hydraulic conductivity lacustrine deposits. Therefore, the inferred groundwater flow direction should be assessed with caution. The water level measured in MW-03S could be viewed as an inaccurate water level potentially creating an apparent groundwater sink south of the railroad tracks; however, if the water level from MW-03S was removed from the potentiometric surface mapping the overall groundwater flow directions (north-northwest on GCL property and south-southeast on ACCO property) would still be supported by the remaining water level measurements.

Groundwater in the intermediate water bearing unit flows to the north-northwest with a horizontal hydraulic gradient of 0.02 feet/foot. The water level measured in EW-4I was not used in the potentiometric surface mapping as it appears to be in error as it is roughly 50 feet deeper that surrounding water levels measured in the intermediate water bearing unit. The potentiometric surface is depicted on **Figure 3-19**. This relatively steep hydraulic gradient is likely due to the fine-grained texture of the Lacustrine Sand, Silt, and Clay. The groundwater (seepage) velocity was calculated using the hydraulic conductivity (0.14 ft/day) calculated with the aquifer test on MW-12I (CDM, 2002) and an effective porosity of 0.15 (silt). The results show that groundwater flows horizontally in the Lacustrine Sand, Silt, and Clays at a rate of approximately 7 feet per year as per Equation (1). It is important to note that this is a groundwater seepage velocity and contaminants dissolved in groundwater would migrate at a lower velocity due to sorption and other solute transport properties.

Given the fine-grained texture of the bedrock, the hydraulic conductivity of the primary permeability/porosity is likely very, very low. Therefore, there is no substantive groundwater flow through the primary permeability. Groundwater flow in bedrock is through secondary permeability fractures. Groundwater flows to the northwest with a horizontal hydraulic gradient of 0.01 feet/foot. The potentiometric surface of bedrock is depicted on **Figure 3-20**. The groundwater (seepage) velocity was calculated with Equation (1) using the hydraulic conductivity (0.58 ft/day) calculated with the aquifer test on MW-3B (CDM, 2002) and an effective porosity of 0.05 (bedrock fracture porosity). The results show that groundwater flows horizontally in the bedrock fractures at a rate of approximately 40 feet per year as per Equation (1). It is important to note that this is a groundwater seepage velocity and contaminants dissolved in groundwater would migrate at a lower velocity due to sorption and other solute transport properties.

Comparing the water level elevation in the shallow and deep water-bearing units at the same location (i.e., well clusters) shows that there is a downward gradient from the intermediate to bedrock water bearing units ranging from 0.01 at MW-10I/B to 0.15 at MW-05 S/I/D well clusters (**Table 3-3**).

$$v = K i / n_e \qquad \text{Equation (1)}$$

where:

v = groundwater seepage velocity (feet/day)

K = hydraulic conductivity (feet/day)

i = hydraulic gradient (feet/foot)

n_e = effective porosity (unitless)

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4 Investigation Results

4.1 Data Usability

The data collected during the PDI fulfilled the site-specific Quality Assurance/Quality Control (QA/QC) requirements. Results were determined to be acceptable, except where noted, for use to support Site decisions. An evaluation of data precision, accuracy, representativeness, comparability, completeness, sensitivity, and blank contamination is provided in the subsequent sections. A full set of laboratory data is provided in **Appendix J**. A summary of the blank laboratory data is provided in **Appendix K**. The Data Validation Reports are provided in **Appendix L**.

4.1.1 Precision

Precision is the measurement of agreement in repeated tests of the same or identical samples, under prescribed conditions. Precision data indicate how consistent and reproducible the field sampling or analytical procedures have been. For the Site data, precision was determined through replicate measurements of the same or identical samples (i.e., field duplicate samples) summarized on **Table 4-1** (RPD-Packer Groundwater Samples)**, Table 4-2** (RPD-Monitoring Well Groundwater Samples)**,** and **Table 4-3** (RPD-Soil Samples).

Four groundwater packer sample field duplicates, two groundwater monitoring well sample field duplicates, and 10 soil field duplicates were collected and analyzed. The acceptance criterion for the duplicate is a relative percent difference (RPD) of less than 50 percent for all analytes in soil and groundwater. The RPD was not calculated for any set of sample pairs where concentrations were not detected in both data sets; agreement between the original sample and the duplicate can be inferred when both results are non-detects.

Four packer groundwater samples were collected in duplicate and analyzed for VOCs, SVOCs, and TPH (where noted). There were 69 calculated pairs. Sample pairs in three groundwater samples were all below the 50 percent RPD criteria. Four sample pairs (fluorene, fluoranthene, phenanthrene, and pyrene) in one groundwater sample exceeded the 50 percent criteria with a maximum RPD of 108.6 percent.

Two groundwater samples collected from monitoring wells were collected in duplicate and analyzed for VOCs, SVOCs, metals, and inorganic parameters (where noted). There were 21 calculated pairs. One sample pair (aluminum) in one groundwater sample exceeded the 50 percent criteria with a maximum RPD of 52 percent.

Ten soil samples were collected in duplicate and analyzed for VOCs, SVOCs, and TPH (where noted). There were 85 calculated pairs. Twenty-four sample pairs exceeded the 50 percent criteria with a maximum RPD of 176.6 percent. These results illustrate the high level of uncertainty with soil sample results associated with the potential presence of NAPL. Ninety-four percent (85 of 90 samples) of the groundwater sample pairs that contained detections of VOCs or SVOCs in groundwater were within the RPD limits indicating the sampling program achieved overall good reproducibility.

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4.1.2 Accuracy

Accuracy is the degree of agreement of a measured sample result or average of results with an accepted reference or true value. It is the quantitative measurement of the bias of a system and is expressed in terms of percent recovery. Accuracy of the data can be determined using surrogate compounds, internal standard compounds, matrix spike samples, and laboratory control spike samples. Laboratory Control Samples/Laboratory Control Sample Duplicates, and surrogate recoveries were all within QC limits except as noted in the Data Assessments. Based on the information provided and available results, the laboratories achieved a good degree of accuracy.

4.1.3 Representativeness

Representativeness is the degree to which the results of the analyses accurately and precisely represent a characteristic of a population, a process condition, or an environmental condition. In this case, representativeness is the degree to which the data reflect the contaminants present and their concentration magnitudes in the sampled areas. Representativeness of data occurs through the selection of appropriate sampling locations and the implementation of approved sampling procedures. The sampling locations for the PDI were as defined in the UFP QAPP, and field personnel followed the procedures outlined in the UFP QAPP (HDR OBG JV, 2022).

4.1.4 Comparability

To increase the degree of comparability between data results and between past, present, and future sampling events, standard environmental analytical methods were employed by the off-site laboratories. Routine Analytical Service (RAS) sample analyses available through Laboratory Services and Applied Sciences Division (LSASD) laboratory and the EPA CLP were used for the organics and inorganics analyses as specified in the Scope of Work (SOW). Modified analyses (MAs) were prepared by the CLP laboratory to accommodate project-specific Contract-Required Quantitation Limits (CRQLs) and additional analytes required.

4.1.5 Completeness

Completeness is determined by the percentage of samples that meet or exceed all the criteria objective levels (i.e., the number of usable sample results for the data set). All the sample results were determined to be usable.

4.1.6 Sensitivity

Sensitivity is the ability of the analytical method or instrument to detect a target analyte at the level of interest. The method detection limit (MDL) is a statistically derived value that represents a 99 percent confidence level that the reported instrument signal is different from a blank sample. The quantitation limit (QL) is the minimum concentration of an analyte that can be routinely identified by the laboratory and is generally between three and ten times the MDL. Analytical methods are matrix-, moisture- and dilution dependent. The sample quantitation limit (SQL) determined for a constituent for a specific sample may be higher than the QL due to these issues. The laboratory was able

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to achieve the CRQLs, where applicable, for each analyte requested except for those noted in the Data Assessments that were due to issues with the initial calibration curve and/or dilutions that were required due to high concentrations of target analytes.

4.1.7 Blank Contamination Elimination

Blanks were prepared to identify any contamination that may have been introduced into the samples. Sixty-five equipment blank samples were collected and analyzed. Several VOCs and SVOCs including toluene, xylenes, tetrahydrofuran, trichloroethene, trans-1,2-trichloroethane, 2-chlorocyclohexanol, and 4-chloro-3-methylnaphthalene along with acetone and chloroform were noted in the equipment blank samples. Results were qualified, as necessary. Most were detected below 1 µg/L. Only acetone was detected above 1 µg/L. Results were qualified, as necessary. Fifty-two trip blank samples were submitted during the PDI sampling. Several VOCs including toluene, tetrahydrofuran, sulfur dioxide, naphthalene, cyclohexane, and carbon disulfide were noted in the trip blank samples. Results were qualified, as necessary. A summary of the blank laboratory data is provided in **Appendix K**.

4.2 Unconsolidated Sediments

4.2.1 Laser Induced Fluorescence Borings

LIF - OiHPT-G borings were advanced at 36 locations. Parratt-Wolff, Inc. with S2C2 delineated the vertical and horizontal extent of creosote impacted soil using a Geoprobe® OiHPT-G. S2C2 used a OH6720 OiHPT-G probe, FI6000 field instrument, K6300 HPT flow module, OP6100 OIP instrument interface and a field laptop with Direct Image Acquisition software to log all OiHPT-G data. Output from the OiHPT-G probe was displayed on the field laptop in real-time displaying EC, ROP, %FA, optical power, and HPT pressure. These data were viewed continuously during each OiHPT-G logging run and synchronized to a secure cloud-based file storage system.

The result of each test is presented in vertical tracks on the LIF log. **Figure 4-1** provides an example log for SB-BR-10. Track 1 (starting from the left) presents the results from the EC. Track 2 presents the results from the ROP. Track 3 presents the HPT injection pressure. Track 4 presents the Fluorescence. Each tool that was used to log the characteristics of each borehole are described in subsequent paragraphs.

4.2.1.1 Electrical Conductivity

The EC capabilities on the OiHPT-G consists of an electric dipole near the lead-end of the probe. The dipole sends a current into the soil formation which is measured along with the resulting voltage. The electrical conductivity is a ratio of current to voltage times a constant and is read in mS/m. Because fine grain soils have more surface area through which to conduct electricity, EC is effectively a measurement of the predominant soil grain-size and can be used to identify lithologic changes. It is important to note that EC correlates to the grain-size which is present at the greatest percentage. In general, coarse-grained soils such as gravel and coarse sands have the lowest values (typically 0-20 mS/m), and clays have the greatest values (typically greater than 80 mS/m). Upon completion of the log (post processing), equations were used with the Geoprobe® Direct

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Image Viewer software to correlate EC to estimated hydraulic conductivity. in feet per day (ft/day).

The EC data plotted in black and grey show the electrical response in mS/m. These data are converted to an estimate of hydraulic conductivity (ft/day) shown in blue that are reflective of the grain size of the aquifer material. Low hydraulic conductivity material such as silt or clay is indicated with a signal to the left of the plot. High hydraulic conductivity material such as coarse sand or gravel is indicative with a signal to the right of the plot. In this example for SB-LIF-10 **Figure 4-1**, the data shows low hydraulic conductivity material from 10 to 14 ft bgs, high hydraulic conductivity material from 14-30 ft bgs, low hydraulic conductivity material from 30-34 ft bgs, and low-moderate hydraulic conductivity material from 34 to 56 ft bgs.

4.2.1.2 HPT Profiling

The HPT system uses a sensitive downhole transducer to measure the pressure response of the injection of clean water. As the probe is advanced at 20 millimeters per second (mm/s), water is injected through a stainless-steel screen on the side of the probe at a flow rate of approximately 200-300 mL/min. Injection pressure is monitored and plotted with depth along with the injection flow rate. A low pressure is indicative of higher subsurface permeability while high pressure is indicative of lower permeability.

The HPT results can be used as an indicator of the grain size of aquifer materials. HPT works in the inverse direction as EC with a low pressure to the left of the plot indicative of a coarse grained, high hydraulic conductivity material and a high pressure to the right of the plot indicative of fine-grained, low hydraulic conductivity material. The black line on the graph is a plot of the absolute piezometric pressure with depth. The plot to the right is corrected HPT pressure adjusted for the effects of absolute piezometric pressure. These data can be used to complement and confirm the EC data. In this example for SB-LIF-10, the data shows low K material from 10 to 14 ft bgs, high hydraulic conductivity material from 14-30 ft bgs, low hydraulic conductivity material from 30-34 ft bgs, and low-moderate hydraulic conductivity material from 34 to 56 ft bgs.

4.2.1.3 Fluorescence

The OiHPT-G coupled with an EC sensor provides continuous stratigraphic information of the soil as well as a semi-quantitative indicator of the presence of NAPL. The OiHPT-G detects induced fluorescence of PAH contaminants found in creosote, coal tars, heavy crude oils, lubricating oils and bunker fuels in saturated and unsaturated media. The OiHPT-G probe consists of a downhole metal oxide semiconductor camera focused at a sapphire window that acts as a rugged interface between the probe cavity and subsurface matrix. A green laser diode positioned above the camera directs green light at a 520 nanometer (nm) wavelength through the sapphire window and at the subsurface, causing PAH components to fluoresce if present. An optical filter on the camera excludes any reflected green light from the light source allowing orange to red wavelength fluorescence to pass through to the camera which captures an image of the florescence. The captured image is then analyzed by the OIP software which uses a 2-stage digital filter to determine if the fluorescent light falls in the correct color (hue) range above a specified brightness (value) level to be defined as fluorescence for the product under investigation. Coal tars and creosote typically fluoresce in the red-orange

wavelength range. Using an algorithm, the software determined the number of pixels in the image that indicate fluorescence. The reported value is a percent area of the captured image that displays fluorescence (%FA) with a resolution of 0.05 feet (i.e., 20 readings per foot).

The fluorescence data on the plot along with the HPT data can be used to correlate fluorescence response to soil texture. A fluorescence response of 50% or greater has been interpreted as potentially mobile NAPL. A fluorescence response of less than 50% has been interpreted to be residual NAPL and a response of 0% indicates that no NAPL is present. The fluorescence data on this example plot of SB-LIF-10 on **Figure 4-1** shows potentially mobile NAPL is potentially present from 22-23 feet coincident with the higher hydraulic conductivity materials. The fluorescence spike at 29 feet is coincident with low hydraulic conductivity material.

4.2.1.4 Summary

Table 4-4 shows the LIF borings and intervals that contain a LIF response greater than 50 percent. These locations and intervals are interpreted to contain potentially mobile NAPL. The hydraulic conductivity of the intervals containing an LIF response greater than 50 percent was also listed on **Table 4-4** to correlate LIF response to horizontal hydraulic conductivity. These data show that the LIF response greater than 50 percent occurs most frequently (16 times) in moderate hydraulic conductivity soil (30-50 ft per day). Seven intervals where the LIF response greater than 50 percent occurs in soil with a hydraulic conductivity less than 30 feet per day. Six intervals where the LIF response greater than 50 percent occurs in soil with a hydraulic conductivity more than 50 feet per day. The hydraulic conductivity of the aquifer in the interval below the interval that contained a LIF response greater than 50 percent was assessed to determine if material had a lower hydraulic conductivity as this may limit the vertical migration of NAPL and explain why the LIF response greater than 50 percent is in the moderate to high hydraulic conductivity intervals. The results show that three of the 38 intervals were underlain by lower hydraulic conductivity soil as shown on **Table 4-4**. Therefore, instances where potentially mobile NAPL is in high conductivity intervals is not because those intervals underlain by lower conductivity materials that limit vertical migration. The processes impacting NAPL migration are discussed in Section 5.

4.2.2 Soil Sampling Results

One hundred twenty-three soil samples (plus 10 duplicate samples) were collected during the PDI. Twenty-six additional soil samples were collected with an Encore™ sampling device. Sample IDs that end in “-1” are duplicate soil samples. Sample IDs that end in “-2” are duplicate soil samples collected with the Encore™ sampling device. Sample IDs without a “-1” or “-2” at the end are soil samples. These samples were sent to CLP lab for VOC, SVOC, and TPH analysis. These samples were collected to assess the presence of NAPL and allow the comparison of these sample results to the LIF responses.

The results of the analysis are presented on **Table 4-5**. Phenanthrene (37), Naphthalene (36), Fluoranthene (35), Pyrene (33), Anthracene (32) were detected the most frequently. Naphthalene was detected at the highest maximum concentration

(4,500 mg/kg) and had the highest average concentration (704 mg/kg). Phenanthrene was detected at the second highest maximum concentration (3,400 mg/kg) and had the second highest average concentration (516 mg/kg). Fluoranthene was detected at the third highest maximum concentration (1,900 mg/kg) and had the third highest average concentration (299 mg/kg). The concentration of BTEX ranges from non-detect to 77.7 mg/kg. The total SVOCs ranges from non-detect to 16,360 mg/kg. The total SVOC tentatively identified compounds (TICs) ranges from non-detect to 3,869 mg/kg. The concentration of TPH ranges from non-detect to 18,100 mg/kg. A QC Audit was completed during the soil sampling (**Appendix M**). The results show the field team completed the sampling according to the UFP-QAPP.

Twenty-six Encore samples were collected at the same interval as standard soil samples. Encore soil samples are identified with a "-2" at the end of the sample ID on **Table 4-5**. Encore samples were analyzed for TCL VOCs. VOCs were detected in 11 Encore samples. Eight sample pairs were created by a VOC being detected in both the standard soil sample and the Encore soil sample (sample pairs). Five of the eight sample pairs contained low VOC concentrations with a "J" qualifier. Three sample pairs detected VOCs at higher concentrations. The RPD of the three sample pairs were 10, 14, and 100 percent.

The total SVOCs, total SVOC TICs, and TPH soil results are listed on **Table 4-6** with corresponding LIF responses and visual observations of NAPL to allow the comparison of the LIF response to total SVOCs and TPH. The results show that a total SVOCs soil concentration of approximately 500 mg/kg corresponds to a LIF percent fluorescence response of approximately 50 percent or greater. This interpretation is consistent with the visual observations of NAPL. These data allow for an assessment of potentially mobile NAPL in soil borings where soil samples were collected and analyzed for SVOCs and where LIF were not completed (SB-BR-01, SB-BR-02, SB-BR-03, and SB-BR-05).

4.2.3 Temporary Well Groundwater Samples

Nine groundwater samples were collected from the shallow and intermediate water bearing units at SB-MW-22 and analyzed for VOCs. Groundwater samples were collected at (roughly) 10-foot intervals from 20 feet bgs to 115 ft bgs. The results are shown on **Table 4-7**. These results show low (<10 µg/L) concentrations of VOCs were detected in groundwater samples. These include chlorinated (trichloroethene, cis-1,2-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, and 1,1-dichloroethane) and aromatic (benzene, toluene, ethylbenzene, and xylene) VOCs. Although creosote-related compounds are the most prevalent at the Site, cis-1,2-dichloroethene (21 µg/L) and toluene (42 µg/L) were detected at the highest concentration of all the VOC analytes.

Tentatively Identified Compounds (TICs) that were detected with the VOC analysis in these samples were reviewed to assess the presence of creosote related compounds. The results show that naphthalene was detected at 130 µg/L (30 ft bgs), 86 µg/L (40 ft bgs), and 150 µg/L µg/L (50 ft bgs). Naphthalene is a target compound on the list of SVOC analytes; however, naphthalene was detected as a TIC on the VOC analysis as the samples were only analyzed for VOCs. These data were used to select the MW-22I screen depth at 50 ft bgs.

4.2.4 Groundwater Sampling (Monitoring Wells)

Groundwater samples were collected from 20 monitoring wells screened in the shallow and intermediate water bearing units during the synoptic groundwater sampling event in November 2022. One grab groundwater sample was collected on January 17, 2023, from MW-22I (for a total of 21 groundwater samples) to characterize the VOC and SVOC concentration in groundwater at this location and to assess if the NAPL detected in MW-22I was creosote. A groundwater sample was collected from MW-22I in January 2023 as this well was not installed at the time of the synoptic groundwater sampling event in November 2022. Four groundwater samples were collected from the shallow water bearing unit. Seventeen groundwater samples were collected from the intermediate water bearing unit. Sample IDs on **Table 4-8** that end in "-DUP" are duplicate groundwater samples. The other samples are normal field samples. Groundwater in MW-03S, MW-17S, MW-17I, PZ-02S, and PZ-02I were not sampled due to the presence of NAPL in the well.

In the shallow water bearing unit, SVOCs were detected in groundwater collected from one (MW-01S) of the four wells (**Table 4-8**). The SVOC concentration ranged from non-detect to 3.0 µg/L (MW-01S) (**Figure 4-2**). Total SVOC TICs ranged from non-detect to 55 µg/L. BTEX were not detected in groundwater collected from any groundwater samples collected from the shallow water bearing unit. The total SVOCs and total SVOC TICs were plotted on a plan view map to illustrate their spatial distribution in shallow water bearing unit (**Figure 4-2)**.

In the intermediate water bearing unit, SVOCs were detected in 12 of the 17 wells (**Table 4-8**). The total SVOCs ranged from non-detect to 5,747.7 µg/L (**Figure 4-3**). The highest total SVOC concentrations were detected in groundwater collected from monitoring wells (MW12I and MW-22I) on ACCO property. The total SVOC TICs ranged from non-detect to 2,851 µg/L in groundwater collected from MW-22I. The total BTEX concentrations ranged from non-detect to 69.30 µg/L in groundwater collected from MW-12I. The total SVOCs and total SVOC TICs were plotted on a plan view map illustrate the spatial distribution in the intermediate water bearing unit (**Figure 4-3)**.

These results were also used to assess the potential presence of NAPL by comparing the concentration of the individual analytes to their respective effective solubility described in the subsequent sections. As previously discussed, the concentration of total SVOCs ranges from non-detect to 5,747.7 µg/L. The concentration of total SVOCs in groundwater is not high as may be expected given the presence of NAPL in some nearby wells because of the low solubility of many SVOCs. It is important to note that groundwater samples were not collected from MW-03S, MW-17S, MW-17I, PZ-02S and PZ-02I due to the presence of NAPL in the wells. It is likely that the concentration of total SVOCs would be high in groundwater collected from these wells due to the presence of NAPL.

4.2.4.1 Effective Solubility Analysis

The effective solubility of each VOC (petroleum related) and SVOC analyte was calculated to assess the likely presence or absence of NAPL. The aqueous solubility of a compound is defined as the equilibrium, or saturation concentration (Csat), of the organic compound liquid or solid in the aqueous phase, denoting the maximum

concentration of a given chemical that can be dissolved in pure water at a given temperature and pressure. The equilibrium solubility in water of an individual compound in a multi-component NAPL is referred to as the compound's effective solubility. Because the various compounds in a multi-component NAPL can suppress each other's individual aqueous solubility, effective solubilities typically are lower than the reported aqueous solubilities for the individual compounds (Kueper and Davies, 2009).

An effective solubility of greater than 1-percent is the threshold that commonly has been used as "rule of thumb" to infer the presence of NAPL in aqueous monitoring results. The 1-percent threshold has also been used to infer the presence of NAPLs in aqueous monitoring results where limited or no data are available from direct testing for the presence of NAPLs through soil or water analyses methods (U.S. Environmental Protection Agency, 2004a; Kueper and Davies, 2009). However, the 1-percent threshold for considering groundwater concentrations potentially indicative of NAPL presence refers to effective solubilities when the NAPL may contain more than one compound rather than aqueous solubilities which refers to pure substances (Kueper and Davies, 2009). It should be noted that this empirical method cannot distinguish the form in which NAPLs may occur (residual NAPL or NAPL pools), and the form of the NAPL would affect its mobility and dissolution rates (Essaid and others, 2015).

4.2.4.2 Methods and Data Analysis

The effective solubility of each VOC (petroleum related) and SVOC analyte was calculated to assess the likely presence or absence of NAPL. VOC (petroleum related) and SVOC analytical results were evaluated using analytical results of groundwater samples.

Literature values of the aqueous solubility and molecular weight of each analyte were tabulated (Howard, 1989; Montgomery, 1991; Montgomery and Welkom, 1990; National Institutes of Health, 20123). VOC and SVOC concentrations (i.e., analytical results) were converted to micromolar concentrations (µmol/L) by dividing the concentration of the analyte (µg/L) by the analytes molecular weight (µg/mol). The molar fraction of each compound in a sample was calculated by dividing the molar concentration of an analyte by the sum of molar concentrations for a selected sample. The effective solubility for a compound was calculated from Raoult's Law (Kueper and Davies, 2009) by multiplying the molar fraction of an analyte in a sample by the analyte's aqueous solubility using Equation (2).

$$C_{eff} = m \times C_{sat} \qquad \text{Equation (2)}$$

Where:

C_{eff} - the effective solubility (micromoles per liter, µmol/L) of an analyte;

m - the unitless mole fraction of an analyte in a sample; and

C_{sat} - the aqueous solubility of the compound (µmol/L) at 25 °C.

Because the fractions of the compounds disposed of as NAPL in the waste are unknown, an effective solubility for each sample was calculated assuming the molar fractions of

compounds in the liquid samples were representative of the possible NAPL molar fractions.

The degree of deviation of the measured liquid concentration from the aqueous effective solubility, % Ceff, was then calculated with Equation (3) (**Table 4-9 and Table 4-10)**.

$$\% C_{eff} = C_{meas} / C_{eff} \times 100 \qquad \text{Equation (3)}$$

Where:

C_{meas} - the measured concentration (µmol/L) of the compound.

Generally, % C_{eff} greater than 1-percent is regarded as likely NAPL contact or presence in groundwater (Kueper and Davies, 2009). These calculations assume ideal partitioning behavior between the NAPL and water and the results do not account for possible changes in the NAPL composition over time. In addition, the assumption that the molar fractions of compounds in the liquid samples are representative of the possible NAPL molar fractions does not account for loss to a vapor phase.

4.2.4.3 Effective Solubility

Groundwater samples were collected from 4 wells in the shallow water bearing unit and 17 wells in the intermediate water bearing unit. Groundwater samples were collected from four shallow wells (PZ-03S, MW-01S, MW-02S, and MW-07S) and 17 Intermediate wells (PZ-01I, EW-1I, EW-2I, EW-3I, EW-4I, EW-5I, MW-01D, MW-02I, MW-03I, MW-07I, MW-08DI, MW-10I, MW-11I, MW-12I, MW-13I, MW-21I, and MW-22I). VOCs (petroleum related) were detected in nine well (EW-1I, EW-2I, EW4I, EW-5I, MW-03I, MW-08DI, MW-12I, MW-21I, and MW-22I). SVOCs were detected in 13 (MW-01S, PZ-01I, EW-1I, EW-2I, EW4I, EW-5I, MW-01D, MW-03I, MW-08DI, MW-12I, MW-13I, MW-21I, and MW-22I) wells.

Figure 4-4 plots the percent effective solubility of VOCs (petroleum related) and SVOCs. This plot shows the range of effective solubilities of each analyte collected from monitoring wells screened in the intermediate water bearing unit. This allows for the visual assessment of the sample analytes greater than 1%, 10%, or even 100% of the effective solubility. These data show groundwater samples collected from EW-1I, MW-03I, MW-12I, and MW-22I contained analytes at concentrations greater than 1-percent of their respective effective solubilities. The effective solubility evaluation shows NAPL could be present at or close to EW-1I, MW-03I, MW-12I, and MW-22I. The results from PZ-01I, PZ-03S, MW-01S, MW-02S, MW-07S, EW-3I, MW-01D, MW-02I, MW-07I, MW-10I, MW-11I, and MW-13I are not included on **Figure 4-4** as SVOC concentrations were low or not detected in these samples.

4.2.4.4 Molar Fractions

The molar fraction of an analyte in a groundwater sample is displayed on **Figure 4-5**. Despite its name (molar fraction), the value of presenting information in this manner is to display the analytes as fractions so the presence and relative amount of each analyte (especially heavy molecular weight analytes) can be seen in a sample. The approach is

not to focus on the actual fraction value. PAHs were detected in five (EW-1I, EW-4I, MW-03I, MW-12I, and MW-22I) groundwater samples. The molar fractions were calculated using just PAH compounds. The molar fractions of PAHs required re-calculation (from the molar fractions of the SVOCs) so that the PAH fractions total 100 percent. The results are shown on **Figure 4-5** and indicate no groundwater samples contained compounds with a high molecular weight (greater than 200 g/mol) or a low solubility (solubility less than or equal to 1.0 µmols/L).

4.2.5 Non-Aqueous Phase Liquid Level Measurements

NAPL has historically been observed in four wells in the shallow and intermediate water bearing zones, including:

- PZ-02S,
- MW-03S,
- MW-17S, and
- MW-17I.

NAPL was detected in six wells in the shallow and intermediate water bearing zones during the PDI, including:

- PZ-02S,
- MW-03S,
- MW-17S,
- PZ-02I,
- MW-17I, and
- MW-22I.

NAPL observations are shown on **Table 4-11**.

4.3 Bedrock

4.3.1 Packer Groundwater Sampling

The VOC (petroleum related) and SVOC results in packer groundwater samples are shown on **Table 4-12**. The SVOC results show that naphthalene, phenanthrene, and acenaphthene were the highest concentration of individual SVOCs detected in groundwater samples. The total SVOC concentrations ranged from non-detect to 6,233.50 µg/L (SB-BR-01 100-120 feet). The total BTEX ranged from non-detect to 92.00 µg/L (SB-MW-22 140-150 ft). The highest concentration of total SVOCs were detected in groundwater collected from SB-BR-01, SB-BR-18, SB-BR-02, and SB-BR-22 located on the west side of GCL and at SB-BR-10 and SB-BR-11 on the east side of GCL.

Confidential

4.3.1.1 Effective Solubility

Groundwater samples were collected from 61 packer intervals in bedrock borings (plus 4 duplicate samples). VOCs (petroleum related) and SVOCs were detected in 61 groundwater samples as displayed on **Figure 4-6** through **Figure 4-10**. The effective solubility of each VOC (petroleum related) and SVOC analyte was calculated as described in Section 4.2.4.2 to assess the potential presence or absence of NAPL. The data on **Figure 4-6** through **Figure 4-10** show a plot of the percent effective solubility that allows an assessment of the range of effective solubilities of each analyte over the range of groundwater samples. One hundred percent effective solubility was used to assess packer groundwater samples as the high end of the range of the effective solubilities was three orders of magnitude greater than for the groundwater samples collected from monitoring wells. This is likely due to the turbid nature of the packer groundwater samples and the potential for organic compounds to sorb to solids and organic carbon.

The effective solubility of each compound in each groundwater sample was assessed to identify the number of compounds exceeding a 100% effective solubility in a sample. The result show that 25 samples contained two or more analytes at concentrations greater than the 100 percent their effective solubility. Two was selected for this analysis to factor in the very low solubility of some compounds where a detection of the analyte above the MDL (potentially a result of sampling or laboratory error) would result in an analyte above 100 percent of the effective solubility.

The 25 groundwater samples containing two or more analytes greater than 100 percent of their respective effective solubilities include:

SB-BR-01-85-100
SB-BR-01-100-120
SB-BR-01-120-140
SB-BR-01-140-160
SB-BR-02-80-90
SB-BR-02-90-100
SB-BR-02-100-108.5
SB-BR-02-110-120
SB-BR-02-120-140
SB-BR-03-120-140
SB-BR-05-90-100
SB-BR-05-100-120
SB-BR-07-90-100
SB-BR-07-100-120
SB-BR-07-120-140
SB-BR-10-115-125
SB-BR-10-125-135
SB-BR-10-135-140
SB-BR-11-110-120
SB-BR-11-120-140
SB-BR-11-140-160
SB-BR-LIF18-110-120
SB-BR-LIF18-130-140
SB-BR-LIF22-100-120
SB-BR-LIF22-120-140

These 25 groundwater samples were collected from nine borings (SB-BR-01, SB-BR-02, SB-BR-03, SB-BR-05, SB-BR-07, SB-BR-10, SB-BR-11, SB-BR-LIF18, and SB-BR-LIF22). Four of the nine borings are located on the northeast side of GCL where current and historic NAPL has been measured in monitoring wells. Five of the nine borings are located on the southwest side of GCL including SB-BR-01, SB-BR-02, SB-BR-03, SB-

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BR-07, and SB-BR-LIF18 where current and historic NAPL has not been measured in monitoring wells.

4.3.1.2 Molar Fractions

The molar fraction of an analyte in a groundwater sample is displayed on **Figure 4-11** through **Figure 4-13**. The value of this approach is to display the analytes as fractions so the presence and relative amount of each analyte (especially heavy molecular weight analytes) can be seen in a sample. The molar fractions were calculated using just PAH compounds. The molar fractions of PAHs required re-calculation so that the PAH fractions total 100 percent.

The data on these charts show the relative molar fraction of each PAH. The less soluble compounds are organized to be at the top of the chart on **Figure 4-11** through **Figure 4-13**. The green (color band) with a thick black border on the chart is pyrene that has a molecular weight of 202.26 g/mol and a solubility of 0.6 µmols/L. All of the compounds (color bands) above the green with a thick black border on the chart are low solubility compounds (less than or equal to 1.0 µmols/L).

These data show that the packer samples with measurable quantities of the low solubility compounds (e.g., benzo(g,h,i)perylene, benzo(k)fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, chrysene, benzo(a)anthracene, and pyrene with solubility of 1.0 µmols/L or less) on **Figure 4-11** through **Figure 4-13** may be at or close to potential NAPL source(s) as these compounds are only slightly soluble and will not migrate far from potential NAPL source(s) as they are readily adsorbed onto solids/organic matter.

4.3.2 Groundwater Sampling (Monitoring Wells)

Groundwater samples were collected from nine bedrock monitoring wells (MW-08B, MW-10B, MW-11B, MW-12B, MW-13B, MW-17B, MW-19B, MW-20B, and MW-21B) during the synoptic groundwater sampling event. One groundwater sample was subsequently (January 12, 2023) collected from MW-22B (for a total of 10 bedrock groundwater samples) to characterize the VOC and SVOC concentration in groundwater at this location. A field duplicate sample was also collected. Groundwater in MW-03B, MW-07D, MW-07B, and MW-18B were not sampled due to the presence of NAPL in the well. Groundwater in EW-1B, EW-2B, ands EW-3B were not sampled because of a blockage in the well. MW-18B was not sampled as it was not located during the synoptic groundwater sampling event. This well was not sampled at a later date as NAPL was observed in the well.

BTEX was detected in seven groundwater samples collected from the 10 bedrock wells. The BTEX concentration ranged from non-detect to 33.60 µg/L. Very low (<10 µg/L) concentration of total BTEX were detected in groundwater collected four (MW-08B, MW-13B, MW-20B, and MW-21B) wells. Total BTEX were detected at greater than 10 µg/L in groundwater samples collected from three monitoring wells (MW-11B, MW-12B, and MW-22B). SVOC were detected in eight groundwater samples collected from the 10 bedrock wells. The total SVOC concentration ranged from non-detect to 434 µg/L. SVOCs were not detected in groundwater samples collected from MW-10B and MW-11B. Very low (<10 µg/L) concentration of total SVOCs were detected in groundwater samples collected from three (MW-13B, MW-17B, and MW-19B) of the wells. Total

SVOCs were detected above 10 µg/L in groundwater samples collected from five monitoring wells (MW-08B, MW-12B, MW-20B, MW-21B, and MW-22B). SVOC TICs were also detected in six groundwater samples collected from 10 bedrock wells. The total SVOC TICs concentration ranged from non-detect to 199.8µg/L. SVOC TICs were not detected in groundwater samples collected from MW-10B, MW-13B, MW-17B, and MW-19B. SVOC TICs were detected above 10 µg/L in groundwater samples collected from six monitoring wells (MW-08B, MW-12B, MW-20B, MW-21B, and MW22B.). The VOC (petroleum related), SVOC, and SVOC TIC results are listed on **Table 4-8**.

The concentration of total SVOCs and total SVOC TICs were plotted on a plan view map to better understand the spatial distribution in bedrock (**Figure 4-14)**. The highest total SVOC concentrations were detected in groundwater collected from monitoring wells (MW12B and MW-22B) on ACCO property. The concentration of total SVOCs in groundwater is not high as may be expected given the potential presence of NAPL in the area because of the low solubility of the SVOCs. Groundwater samples were not collected from MW-03B, MW-07B, and MW-18B due to the presence of NAPL in the wells. It is likely that the concentration of total SVOCs would be high in these wells due to the presence of NAPL. The data on **Figure 4-14** shows the highest concentration of total SVOCs in groundwater is focused in the center of GCL near MW-03B, MW-07D, MW-07B, and MW-18B potentially due to the trough in the surface of bedrock that could have focused the NAPL distribution from the lacustrine deposits into bedrock in this area.

4.3.2.1 Effective Solubility

The effective solubility of each VOC (petroleum related) and SVOC analyte was calculated according to the method outlined in Section 4.2.4.1 and 4.2.4.2 to assess the likely presence or absence of NAPL.

Figure 4-15 shows a plot of the percent effective solubility that allows an assessment of the range of effective solubilities of each analyte over the range of groundwater samples. This allows for the visual assessment of the sample analytes greater than 1, 10, or even 100 percent of the effective solubility.

The results show groundwater samples collected from MW-12B, MW-20B, MW-21B, and MW-22B contained analytes at concentrations greater than 1 percent of their respective effective solubilities. These wells may be at or close to potential NAPL source(s) as these compounds are only slightly soluble and will not migrate far from potential NAPL source(s) as they are readily adsorbed onto solids/organic matter. Results from MW-3B, MW-07D, MW-07B, and MW-18B were not included in this analysis as NAPL has recently been detected in these wells during the PDI.

4.3.2.2 Molar Fractions

The molar fraction of an analyte in a groundwater sample is displayed on **Figure 4-16**. Despite its name (Molar Fraction), the value of presenting information in this manner is not to focus on the fraction. The value of this approach is to display the analytes as fractions so the presence and relative amount of each analyte (especially heavy molecular weight analytes) can be seen in a sample. Groundwater samples from four (MW-12B, MW-20B, MW-21B, and MW-22B) wells contained PAHs as shown on **Figure 4-16**. The molar fractions were then calculated using just PAH compounds. The molar

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fractions of PAHs required re-calculation so that the PAH fractions total 100 percent. **Figure 4-16** shows the molar fraction of each analyte detected in the groundwater samples. The results show groundwater samples collected from MW-12B, MW-21B, and MW-22B contained compounds, specifically pyrene, with a high molecular weight or a low solubility (solubility less than or equal to 1.0 µmols/L).

4.3.3 Non-Aqueous Phase Liquid Level Measurements

NAPL has historically been observed in five bedrock wells (H&S, 2016), including:

- EW-1B,
- EW-2B,
- MW-3B, and
- MW-07D, and
- MW-07B.

NAPL was observed in four bedrock wells during the PDI, including:

- MW-03B,
- MW-07D,
- MW-07B, and
- MW-18B.

NAPL was not detected in EW-1B and EW-2B as there was a blockage in the well during PDI groundwater sampling, but NAPL was observed on pumps removed from each well. NAPL globules were observed in MW-03B and 1.4 feet of NAPL was measured in MW-07B at the start of the PDI. The NAPL in MW-07B was removed (bailed) from the well in November 2022. NAPL measurements in January and May 2023 did not detect NAPL in MW-07B. Odors have been noted in MW-12B and MW-17B; however, no NAPL has historically been observed in these wells. NAPL observations in bedrock are listed on **Table 4-11**.

4.4 Cross-Sections

The following data, outlined in Sections 3 and 4, have been added to the cross-sections (**Figure 4-17** through **Figure 4-24**):

Unconsolidated Deposits:

- LIF Response
- Historic NAPL Observations
- PDI NAPL Observations
- Soil Results
    - Total BTEX
    - Total SVOCs/Total SVOC TICs

    - TPH
- Hydraulic Head

Bedrock

- Caliper Logs
    - Potentially Active Fractures
- Historic NAPL Observations
- PDI NAPL Observations
- Groundwater Results
    - Total BTEX
    - Total SVOCs/Total SVOC TICs
    - TPH
- Hydraulic Head

The location of bedrock fractures is shown with the caliper log (black). Bedrock intervals with potential groundwater flow (bedrock fracture zone of significance) as indicated by the HPFM presented on **Table 3-1** are marked in blue.

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5 Conceptual Site Model (CSM)

Railroad ties and other wood products were treated with creosote at the property from 1940 to 1988. A treatment vessel inside the GCL process building malfunctioned causing a release of an estimated 30,000 gallons of creosote. Creosote is also known to have been released in large quantities onto surface soils through the practice of drip-drying creosote-soaked lumber with no containment safeguards.

When NAPL was discharged to ground surface at GCL, it flowed downwards through the unsaturated soils under the influence of gravity, capillary effects created by multiphase fluid flow in geologic media, and the pressure (head) in the NAPL (Cohen and Mercer, 1993). Some NAPL was retained in the pore space in the unsaturated zone either coating the soil matrix (if it is the wetting fluid) or as ganglia which are discontinuous essentially immobile accumulations of NAPL encompassing several soil pores (Cohen and Mercer, 1993). In this case, the capillary pressure/interfacial tension between the NAPL and groundwater at the pore throat is too high for the droplet of NAPL to move through the formation even though it has a higher specific gravity than the groundwater (Cohen and Mercer, 1993). NAPLs are hydrophobic so there may be significant interfacial tension between the NAPL and water. This NAPL is immobile (trapped by capillary forces) and acts as a source of dissolved phase contamination when precipitation infiltrating through ground surface and flowing through the unsaturated pore space contacts the NAPL above the water table.

NAPL flow below the water table is very complex and is influenced by NAPL mass and physicochemical characteristics (e.g., viscosity, interfacial tension, wettability, etc.). Given the presence of sufficient NAPL, the NAPL will eventually reach a height where gravity acting on the NAPL provided enough pressure for the NAPL to pass through the capillary fringe and overcome the capillary pressure of the groundwater and displace the water in the pore spaces. This allows NAPL to flow through the saturated zone in an apparent continuous mass leaving only a thin film of water surrounding the individual grains of the formation matrix (when water is the wetting fluid). This likely occurred, in whole or in part, on the east side of the Site where sufficient NAPL was released to have migrated through the shallow and intermediate water bearing units potentially entering bedrock in the area near MW-03B.

More commonly though, there are smaller amounts of NAPL discharged to the subsurface. Once a small amount of NAPL reaches the water table, its flow is highly influenced by the interfacial tension between the NAPL and groundwater. Depending on the amount of NAPL released and the characteristics of the NAPL and the soil matrix, the interfacial tension will typically prevent NAPL from spreading evenly throughout the formation and force the NAPL to follow often circuitous, preferential pathways caused by small changes in the soil matrix. Residual saturation of NAPL is the saturation at which the NAPL is immobilized by capillary forces as discontinuous ganglia under ambient groundwater flow conditions. This likely occurred on the west side of the Site where reports indicate small releases of NAPL may have occurred.

The extent of NAPL in the shallow and intermediate water bearing unit was delineated with direct and indirect NAPL observations. Direct NAPL observations included

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measuring NAPL in wells. NAPL was observed in six wells in the shallow and intermediate water bearing unit including PZ-02I, PZ-02S, MW-03S, MW-17S, MW-17I, and MW-22I. Indirect indications of NAPL include using LIF direct push results, SVOC soil concentrations greater than 500 mg/kg, and effective solubility. Groundwater samples collected from MW-03I, MW-12I, and EW-1I contained analytes at concentrations greater than 1 percent of their respective effective solubilities (**Table 5-1**). One percent of the effective solubility in groundwater collected from monitoring wells corresponds to a total SVOC concentration of 30 µg/L. These direct and indirect indications of NAPL were used to delineate the potential extent of NAPL in the shallow and intermediate water bearing units described in Section 6.

For NAPL to migrate within fractured rock, the NAPL must overcome the fluid entry pressure of a fracture similar to a NAPL overcoming the pore entry pressure for porous media. Fracture entry pressure is a function of the difference in pressure between NAPL and the other fluid(s) present in the fracture (i.e., groundwater), as well as the wetting angle, interfacial tension between the fluids, and the aperture of the fracture (Corey 1994). Once in a fracture, the NAPL can either migrate in fractures or be stored in dead end fractures that create structural traps allowing small pools of NAPL to be stored in these structural traps. NAPL in bedrock can also diffuse into the formation matrix (Parker, Gillham, and Cherry, 1994), where it could act as a secondary source of dissolved phase contamination.

NAPL flow in bedrock is very complex, influenced by NAPL mass and physicochemical characteristics (e.g., viscosity, interfacial tension, wettability, etc.). Given the presence of sufficient NAPL, NAPL will eventually reach a height where gravity acting on the NAPL will provide enough pressure for the NAPL to overcome entry pressure in the bedrock fracture. Fracture spacing and orientation are the primary rock properties controlling NAPL penetration in bedrock. Lateral NAPL migration will dominate the movement and distribution of NAPL in bedrock with shallow dip angle fracture or bedding planes. In this case, the migration of the NAPL will predominantly occur in the direction of a fracture dip and follow fracture topography. More steeply dipping fracture planes will allow for greater vertical NAPL penetration. Lower fracture density (or larger spacing between fractures) will also promote deeper NAPL penetration by focusing NAPL head on those more discrete and finite preferential flow pathways.

The results of the PDI investigation (borehole geophysics) show most of the bedrock bedding and bedrock fractures are shallow promoting lateral movement of NAPL. However, the PDI investigation also show a low fracture density combined with a few vertical fractures could promote a deeper NAPL penetration. NAPL data collected during the PDI show that NAPL was detected in only four bedrock monitoring wells (MW-03B, MW-07B, MW-07D, and MW-18B). MW-03B is located at GCL property. MW-18B, MW-07B, and MW-07D are located on ACCO property approximately 160, 240, and 250 feet from MW-03B. These data show the aerial extent of NAPL in monitoring wells. The results of the PDI investigation also show NAPL was detected in monitoring well MW-03B that is 95-131 feet deep. NAPL was detected in MW-18D that is 110-135 feet deep. NAPL was detected in MW-07D that is 122-132 feet deep and MW-07B that is 126-136 feet deep.

The exact depth NAPL enters the well screens is unknown. However, if we assess potential vertical NAPL movement with the top of the well screens, NAPL could have

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vertically migrated 31 ft (126-95 ft) over 250 horizontal feet. If we assess the potential vertical NAPL movement with the bottom of the well screens, NAPL could have migrated 5 ft (136-131 ft) over 250 horizontal feet. These data show the NAPL is moving laterally roughly 250 feet from MW-03B to MW018B with from 5 to 31 feet of vertical movement within bedrock.

The extent of NAPL in the bedrock water bearing unit was also delineated with direct and indirect NAPL observations in a similar manner as the shallow and intermediate water bearing unit. NAPL was historically observed in five wells in the bedrock water bearing unit including EW-01B, EW-02B, MW-03B, MW-07D, and MW-07B. NAPL was detected in four wells in the bedrock water bearing unit during the PDI including MW-03B, MW-07D, MW-07B, and MW-18B. NAPL (0.16 feet) was measured in MW-03B and 1.4 feet of NAPL was measured in MW-07B at the start of the PDI. The NAPL in MW-07B was removed (bailed) from the well in November 2022. NAPL measurements in January and May 2023 did not detect NAPL in MW-07B. Globules were detected in MW-07D and MW-18B. These data are listed on **Table 4-11**. The presence of NAPL in a monitoring well correlates to a total SVOC of 1,000 µg/L in groundwater samples collected from monitoring wells (**Table 5-1**).

Indirect indications of NAPL included the use of the effective solubility of analytes in groundwater samples. The effective solubility of groundwater samples collected from MW-12B, MW-20B, MW-21B, and MW-22B, contained analytes at concentrations greater than 1 percent of their respective effective solubilities.

The effective solubility of each SVOC analyte was calculated to assess the likely presence or absence of NAPL in each packer groundwater sample. The result show that 25 groundwater samples collected from nine bedrock borings (SB-BR-01, SB-BR-02, SB-BR-03, SB-BR-05, SB-BR-07, SB-BR-10, SB-BR-11, SB-BR-LIF-18, and SB-BR-LIF22) contained two or more analytes at a concentration greater than 100% of their respective effective solubility. One hundred percent of the effective solubility was used as these were turbid groundwater samples. One hundred percent of the respective effective solubility correlates to a total SVOC concentration of 190 µg/L in groundwater samples collected from monitoring wells (**Table 5-1**).

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6 Conclusions

6.1 Geology

Sandy/gravely fill that is loose with low plasticity is present from ground surface to a variable depth. These materials were used to back fill the soil excavated during the Interim RA.

Lacustrine sediments underlie the fill material at the Site or occur at ground surface in those areas not excavated during the Interim RA. These include deposits of thinly to massively bedded silt, fine to very fine sand, and some clay. These sediments were deposited as lake-bottom sediments (bottomset beds) in proglacial lakes that formed as result of the temporary dams created by down valley ice-marginal deposits such as terminal moraines. At GCL, these deposits are roughly 75 feet thick on average.

Kame sand and gravel (ice contact) deposits were detected beneath the lacustrine sediments at the Site. These kame deposits are composed of a very dense mixture of poor to moderately sorted sand, gravel, and silt deposited along the Susquehanna Valley wall along the margins of melting glacial ice. The horizontal hydraulic conductivity of the kame deposits varies widely and can be higher or lower than the overlying lacustrine sediments given the highly variable nature of kame deposits. The spatial variability of the Kame Sand and Gravel hydraulic conductivity could also be due to the uncertainty of the EC logs correlating an electrical conductivity to a soil grain size that is assigned a hydraulic conductivity.

Bedrock at the Site consists of shale, sandstone, and conglomerate sedimentary rock of Upper Devonian age Oneonta Formation (Rickard and Fisher, 1970; Fisher and others, 1970). The bedrock dip gently to the south at 10 to 40 feet per mile (Coates, 1981). Gentle east- and northeast-trending folds are also present, with dips of less than 1 degree (Coates, 1981; Wedel, 1932). The surface of bedrock is irregular sloping from southeast to northwest or from GCL towards ACCO property. The surface of the bedrock is variable with an incised valley on GCL property trending from LIF-26 towards MW-03B and MW-07B.

The bedrock is poorly fractured containing only a limited number of fractures. Borehole geophysical data show most of the fractures and bedding features are near (<5 percent) horizontal. Lateral NAPL migration could dominate the movement and distribution of NAPL in bedrock with shallow dip angle fracture or bedding planes. In this case, the migration of the NAPL will predominantly occur in the direction of a fracture dip and follow fracture topography. Lower fracture density (or larger spacing between fractures) will promote deeper NAPL penetration by focusing NAPL head on those more discrete and finite preferential flow pathways.

6.2 Hydrogeology

The primary water-bearing units at the site are the:

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- shallow watering bearing unit from zero to 25 feet bgs consisting of Lacustrine Sand, Silts, and Clay;
- intermediate water bearing unit from 25 feet bgs to top of bedrock roughly 90 feet bgs consisting of Lacustrine Sand, Silts, and Clay and Kame Sand and Gravel; and
- deep water bearing unit from the top of bedrock to 160 feet bgs except at SB-BR-13 where the deep water bearing unit has been shown to extend to 198 ft bgs.

Groundwater or the water table is encountered from about 6 to 20 feet bgs at the site.

The hydraulic conductivity of the shallow and intermediate water bearing units ranges from less than 1 to 150 feet per day with an average equal to 30 feet per day as defined by the EC logs. This wide range in horizontal hydraulic conductivity is due to the wide range of deposits extending from silt to sand to gravel. The wide range of hydraulic conductivity could also be due to the uncertainty of the EC logs. Groundwater in the shallow water bearing unit flows towards MW-03S. Groundwater in the intermediate water bearing unit flows to the north with a horizontal hydraulic gradient of 0.02 feet/foot at a rate of approximately 7 feet per year.

The hydraulic conductivity of the Kame Sand and Gravel ranges from less than 10 to 150 feet per day with an average equal to 60 feet per day based on EC logs. The horizontal hydraulic conductivity of the Kame Sand and Gravel varies widely and can be higher or lower than the overlying lacustrine sediments due to the varying grain size common in Kame Sand and Gravel or the amount of compaction as these are ice-contact deposits. The wide range of hydraulic conductivity could also be due to the uncertainty of the EC logs.

Given the fine-grained texture of the bedrock, the hydraulic conductivity of the primary permeability/porosity is likely very, very low. Therefore, there is no substantive groundwater flow through the primary permeability. Groundwater flow in bedrock is through fractures. Groundwater flows to the northwest with a horizontal hydraulic gradient of 0.01 feet/foot at a rate of approximately 40 feet per year.

Comparing the water level elevation in the intermediate and deep water-bearing units at the same location (i.e., well clusters) shows that there is a downward gradient from the Lacustrine Sand, Silt, Clay to bedrock that ranges from 0.01 at MW-10I/B to 0.15 at MW-05 S/I/D well clusters. The downward groundwater gradient will tend to promote the downward vertical movement of NAPL in bedrock.

6.3 NAPL Characterization

The EPA collected a sample of NAPL from monitoring well MW-18B. The liquid consisted of a Dense Non-Aqueous Phase Liquid (DNAPL) layer, an aqueous phase, and a small Light Non-Aqueous Phase Liquid (LNAPL). Due to insufficient quantity of LNAPL, only the DNAPL was analyzed for viscosity and specific gravity. The results show the

viscosity was 1,700 centipoise (cPs) and the specific gravity was 1.1385 g/cm^3 at 60 ºF (Batelle, 2016).

A boiling point distribution analysis (ASTM D7169) was performed on both the LNAPL and DNAPL. LNAPL sample was shown to have a slightly greater percentage of lower carbon numbers. Most of the carbon distribution mass (about 75%) of both the light and the dense phases falls within the C_{10} and C_{24} range with the remainder being comprised of a mixture of longer-chained hydrocarbons.

6.4 Direct NAPL Observations

NAPL was historically observed in three wells in the shallow water bearing unit including PZ-02S, MW-03S, and MW-17S. NAPL was also observed in these three wells during the PDI. NAPL was historically detected in one well in the intermediate water bearing unit (MW-17I) and was observed in MW-17I, MW-22I, and PW-02I during the PDI.

NAPL was historically detected in five wells in the bedrock water bearing unit including EW-1B, EW-2B, MW-03B, MW-07B, and MW-07D. NAPL was observed in four wells during the PDI including MW-03B, MW-07D, MW-07B, and MW-18B. NAPL (0.16 feet) was measured in MW-03B and 1.4 feet of NAPL was measured in MW-07B at the start of the PDI. The NAPL in MW-07B was removed (bailed) from the well in November 2022. NAPL measurements in January and May 2023 did not detect NAPL in MW-07B. NAPL odors were noted in MW-12B and MW-17B; however, no NAPL was observed in these wells. These data show NAPL is migrating horizontally in bedrock. Despite limited fractures and downward groundwater flow, NAPL has not migrated deeper than 136 ft bgs (MW-07B) in bedrock based on monitoring wells.

NAPL was observed in nine packer groundwater samples (SB-BR-01-100-120, SB-BR-01-120-140, SB-BR-02-90-100, SB-BR-02-120-140, SB-BR-05-120-130, SB-BR-10-135-145, SB-BR-10-140-160, SB-BR-LIF18-110-120, and SB-BR-LIF22-100-120).

6.5 Indirect NAPL Indications

6.5.1 Laser Induced Fluorescence

LIF - OiHPT-G borings were advanced at 36 locations. **Table 4-4** shows the LIF borings and intervals that contain a LIF response greater than 50 percent. These locations and intervals are interpreted to contain potentially mobile NAPL. The total SVOCs and total petroleum hydrocarbons (TPH) were compared to corresponding LIF response and visual observations of NAPL to allow the comparison of the LIF response to total SVOCs and TPH. The results show that the concentration of total SVOCs greater than 500 mg/kg corresponds to a LIF response greater than 50 percent. This interpretation is consistent with the visual observations of NAPL.

6.5.2 Effective Solubility

The percent effective solubility was calculated to allow an assessment of the range of effective solubilities of each analyte over the range of groundwater samples. These data

were used as an indirect indication of potential NAPL to define areas potentially containing NAPL.

The effective solubility of analytes in groundwater samples collected from the shallow and intermediate water bearing units show groundwater samples collected from EW-1I, MW-03I, MW-12I and MW-22I contained analytes at concentrations greater than 1 percent of their respective effective solubilities. These results show NAPL could be present at or close to EW-1I, MW-03I, MW-12I, and MW-22I.

The effective solubility of analytes in groundwater samples collected from the bedrock water bearing unit show groundwater samples collected from MW-12B, MW-20B, MW-21B, and MW-22B contained analytes at concentrations greater than 1 percent of their respective effective solubilities. These wells may be at or close to potential NAPL.

The effective solubility of analytes in groundwater samples collected from packer groundwater samples in bedrock borings show twenty-five packer groundwater samples contain two or more analytes greater than 100 percent of their respective effective solubilities. One hundred percent effective solubility was used to assess packer groundwater samples as the high end of the range of the effective solubilities was three orders of magnitude greater than for the groundwater samples collected from monitoring wells. This is likely due to the turbid nature of the packer groundwater samples and the potential for organic compounds to sorb to solids and organic carbon.

These twenty-five groundwater samples were collected from nine borings (SB-BR-01, SB-BR-02, SB-BR-03, SB-BR-05, SB-BR-07, SB-BR-10, SB-BR-11, SB-BR-LIF18, and SB-BR-LIF22). Four of the nine borings are located on the northeast side of GCL where current and historic NAPL has been measured in monitoring wells. Five of the nine borings are located on the southwest side of GCL including SB-BR-01, SB-BR-02, SB-BR-03, SB-BR-07, SB-BR-LIF18 where current and historic NAPL has not been measured in monitoring wells. These wells may be at or close to potential NAPL source(s).

6.5.3 Molar Fractions

Molar fractions of PAHs were used to assess the potential presence of NAPL as larger fractions of heavier molecular weight, low solubility compounds will be at or close to NAPL. The results show no groundwater samples collected from the shallow or intermediate water bearing unit contained compounds with a low solubility (less than or equal to 1.0 µmols/L).

Groundwater samples from five bedrock wells (MW-08B, MW-12B, MW-13B, MW-21B, MW-22B) contained compounds with a low solubility (less than or equal to 1.0 µmols/L). The results show these wells may be close to potential NAPL source(s) as these compounds are only slightly soluble and will not migrate far from potential NAPL source(s) as they are readily adsorbed onto solids/organic matter.

Twenty-five packer groundwater samples contain one or more analytes with a low solubility (less than or equal to 1.0 µmols/L). These twenty-five groundwater samples were collected from nine borings (SB-BR-01, SB-BR-02, SB-BR-03, SB-BR-05, SB-BR-07, SB-BR-10, SB-BR-11, SB-BR-LIF18, and SB-BR-LIF22). Four of the nine borings are located on the northeast side of GCL where current and historic NAPL has been

measured in monitoring wells. Five of the nine borings are located on the southwest side of GCL including SB-BR-01, SB-BR-02, SB-BR-03, SB-BR-07, SB-BR-LIF18 where current and historic NAPL has not been measured in monitoring wells. These wells may be at or close to potential NAPL source(s).

6.5.4 Total SVOCs

Total SVOCs were correlated to direct NAPL observations and indirect effective solubility (2 analytes greater than 1 percent for groundwater samples collected from monitoring wells and 100 percent for packer groundwater samples) and molar fractions (greater than 1 µmol/L) to assess the concentration potential indicative of the potential indications of NAPL. Packer groundwater sample results show greater than 1,000 µg/L total SVOCs correlate to direct NAPL observations and greater than approximately 200 µg/L correlate to indirect indications of NAPL (i.e., effective solubility and molar fractions criteria). The concentration of total SVOCs was greater than 200 µg/L and less than 1,000 µg/L in groundwater samples collected from SB-BR-01, SB-BR-02, SB-BR-03, SB-BR-05, SB-BR-07, SB-BR-10, SB-BR-11, SB-BR-LIF16, SB-BR-LIF-18, and SB-BR-LIF22.

Monitoring well groundwater sample results show greater than 20 µg/L correlate to indirect indications of NAPL in bedrock and 30 µg/L correlate to indirect indications of NAPL in the intermediate water bearing unit. The concentration of total SVOCs was greater than 20 µg/L in groundwater samples collected from MW-12B, MW-20B, MW-21B, and MW-22B. The concentration of total SVOCs was greater than 30 µg/L in groundwater samples collected from MW-12I, MW-03I, and EW-1I.

6.6 NAPL Extent Assessment

The Potential NAPL Source Zone was mapped in the shallow/intermediate water bearing unit and the Confirmed/Probable NAPL Source Zone and Potential NAPL Source Zone were mapped in the bedrock water bearing unit. The Confirmed/Probable NAPL Source Zone was delineated with direct NAPL observations. The Potential NAPL Source Zone was delineated with indirect indications of NAPL as described below.

6.6.1 Shallow & Intermediate Water Bearing Zone – NAPL Extent and Mass

The following direct and indirect indications of NAPL in the shallow and intermediate water bearing zones were used:

- Direct
    - Direct observations of NAPL (e.g., measurable NAPL thickness, globules, and sheens in monitoring wells).
- Indirect
    - LIF response of 50% fluorescence or greater;
    - Total SVOC concentrations in soil samples were 500 mg/kg or greater;

- Total SVOCs were detected at 30 µg/L or greater in groundwater samples;
- Effective solubility of two or more analytes is greater than 1 percent of their effective solubility; and
- Analytes that have solubility greater than 1.0 µmol/L (molar fraction analysis) detected in groundwater samples.

Given the limited number of direct NAPL observations in the shallow/intermediate water bearing unit, the Confirmed/Probable Source Zone was not mapped. The potential NAPL source zone was mapped. Based on the indirect indications of NAPL (including the limited direct indications of NAPL), two general areas of potential NAPL impact have been identified in the shallow and intermediate water bearing units:

- Southwestern Area – This area is represented by the red, light blue, dark blue, and orange zones as shown on **Figure 6-1**, which collectively comprise an approximately 50,000 square feet area located toward the southwestern end of the Site. Impacts within this area generally range between 5-37 feet bgs, and the overall volume of this area has been estimated to be 37,000 CY.
- Northeastern Area – This area is represented by the purple, pink, and yellow zones as shown on **Figure 6-1**, which collectively comprise an approximately 40,000 square feet area located toward the northeastern end of the Site. Impacts within this area generally range between 5-60 feet bgs, and the overall volume of this area has been estimated to be 60,000 CY).

The LIF responses, total SVOC concentrations, and detections of NAPL detected in soil samples and groundwater samples were used to estimate an approximate mass of NAPL within the Southwestern and Northeastern Areas.

The NAPL mass calculations are included in **Table 6-1**. Cross-section lines are shown on **Figure 3-9**. The approximate extent of the NAPL zones is depicted on cross-sections A through E (**Figures 6-2** through **6-9**). The NAPL mass estimates are summarized below:

- Southwestern Area – estimated NAPL mass of 134,000 pounds (lbs) (61,000 kg); and
- Northeastern Area - estimated NAPL mass of 26,000 lbs. (12,000 kg).

The total estimated NAPL mass is 160,000 lbs. (73,000 kg).

The NAPL mass was estimated based on the following criteria:

- The concentration of SVOCs detected in soil samples at a concentration of 500 mg/kg or greater were multiplied by the estimated impacted volume of each colored zone of NAPL impact to estimate the mass of NAPL.
- A LIF fluorescence of greater than 50% is approximately equal to 500 mg/kg total SVOCs in soil in areas where soil sample data was not available and only LIF data exists.

- An estimated vertical impact interval was used to better represent the estimated vertical extent of the NAPL impacts.
- SVOC concentrations in soil and vertical impacted intervals were averaged across each colored zone where soil sample data and/or LIF fluorescence response was not consistently higher than 500 mg/kg or 50% for the entire vertical interval of for the boring location.
- The estimated unit weight of soil was assumed to be 1.6 tons per CY.

6.6.2 Bedrock Zone – NAPL Extent and Mass

The following direct and indirect indications of NAPL in bedrock were used:

- Direct
    - Direct observations of NAPL (e.g., measurable NAPL thickness, globules, and sheens) in groundwater collected from monitoring wells and packer intervals;
- Indirect
    - Total SVOCs were detected at 200 µg/L or greater in groundwater samples;
    - Effective solubility of two or more analytes is greater than 100 percent of their effective solubility; and
    - Analytes that have solubility greater than 1.0 µmol/L (molar fraction analysis) detected in groundwater samples.

In general, the 1,000 µg/L SVOCs in packer samples threshold generally corresponds to locations where one or more SVOCs in packer groundwater samples were detected at concentrations exceeding 100% of their effective solubilities and also where direct observations of NAPL were consistently noted during the packer testing work.

Based on these criteria, two general areas of potential NAPL impact have been identified in the bedrock water bearing unit as shown on **Figure 6-10**:

- Confirmed/Probable NAPL Impact Area
    - Southwestern Bedrock Area (1,000 µg/L threshold) - An approximately 26,000 square feet area located toward the southwestern end of the Site, with impacts generally identified between 90-140 ft bgs (estimated volume of approximately 49,000 CY); and
    - Northeastern Bedrock Area (1,000 µg/L threshold) - An approximately 45,000 square feet area located toward the northeastern end of the Site, with impacts generally identified between 95-160 ft bgs (estimated volume of approximately 61,000 CY).
- Potential NAPL Impact Area
    - An approximately 118,000 square feet additional area that encompasses both the northeastern and southwestern zones, with impacts generally identified between 95-160 ft bgs. The vertical

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impacts of the potential NAPL extents are not generally continuous throughout the entire 95-160 ft bgs interval (estimated additional volume of approximately 74,000 CY).

The NAPL Mass was estimated based on the following criteria:

- An average concentration of approximately 1,000 µg/L was used for the confirmed/probable NAPL extent areas and an average concentration of approximately 200 µg/L was used for the potential NAPL extent area.
- The concentration of SVOCs detected in the groundwater packer samples was multiplied by the volume of groundwater that would occupy the pore space volume of the areas of estimated potential NAPL extent shown on **Figure 6-10**.
- The vertical interval of the potential NAPL extent area shown on **Figure 6-10** was estimated based on where the groundwater packer samples showed an approximate concentration of SVOCs of 200 µg/L. Note the vertical interval for the potential NAPL extent area is an average over the entire area and likely varies across the site. The vertical interval may or may not be continuous throughout the potential NAPL impact area.
- An effective (secondary) porosity of the bedrock was conservatively (biased high) assumed to be 10% based on typical porosity of similar bedrock geologic formations.
- NAPL in bedrock fractures was estimated to be approximately 10% of the total effective secondary porosity.

The total SVOC concentrations detected in packer groundwater samples and an estimate of potential NAPL in bedrock fractures were used to estimate an approximate mass of NAPL in the dissolved/aqueous phase and in the non-aqueous phase respectively. The mass of NAPL in the aqueous phase was estimated using the threshold SVOC concentration identified above and the approximate volume of that impact zone. The mass of potential NAPL in bedrock is based on an estimated a bedrock effective porosity of 10% and an assumption that 10% of the porosity space is occupied by NAPL. The NAPL mass calculations are included in **Table 6-2**. Cross-section lines are shown on **Figure 3-9**. The bedrock NAPL zones are depicted on cross-sections A through E (**Figures 6-2** through **6-9**). The NAPL mass estimates are summarized below:

- Confirmed/Probable NAPL Impact Southwestern Bedrock Area (approximately equal to 1,000 µg/L SVOCs threshold):
  - Estimated NAPL Mass in Dissolved/Aqueous Phase: 8 lbs (4 kg)
  - Estimated NAPL Mass in Non-Aqueous Phase: 9,000 lbs (4,000 kg
- Confirmed/Probable NAPL Impact Northeastern Bedrock Area (approximately equal to 1,000 µg/L SVOCs threshold):
  - Estimated NAPL Mass in Dissolved/Aqueous Phase: 10 lbs (5 kg)
  - Estimated NAPL Mass in Non-Aqueous Phase: 11,000 lbs (5,000 kg)
- Potential NAPL Impact Area (for the additional volume represented by approximately equal to 200 µg/L SVOC threshold):

- Estimated NAPL Mass in Dissolved/Aqueous Phase: 2 lbs (1 kg)
- Estimated NAPL Mass in Non-Aqueous Phase: 13,000 lbs (6,000 kg)

Based on the summary provided above, the total estimated NAPL mass in the confirmed/probable impact area of the bedrock is 18 lbs (8 kg) in the aqueous phase and 20,000 lbs (9,000 kg) in the non-aqueous phase. The total estimated NAPL mass in the potential impact area of the bedrock is 2 lbs (1 kg) in the aqueous phase and 13,000 lbs (6,000kg) in the non-aqueous phase.

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TABLES

Table 2-1
Summary of Packer Sample Intervals
GCL Tie and Treating Superfund Site
Sidney, New York

Boring ID	Sample ID	Sample Date	Top Sample Depth (ft)	Bottom Sample Depth (ft)	Purged 3 Volumes	Purged to Bottom of Packer Interval	Flow Indicated on Geophysical Log	Sample Collected	Drill Stem Sample	Packer Sample	Notes
GW-SB-BR-01	SB-BR-01-75-85	10/18/2022	75	85	x		2	x	x		
GW-SB-BR-01	SB-BR-01-85-100	10/21/2022	85	100	x		x	x		x	
GW-SB-BR-01	SB-BR-01-100-120	10/24/2022	100	120	x		x	x		x	Sheen
GW-SB-BR-01	SB-BR-01-120-140	10/24/2022	120	140	x		x	x		x	Sheen
GW-SB-BR-01	SB-BR-01-140-160	10/21/2022	140	160		x		x		x	Slow Recharge
GW-SB-BR-02	SB-BR-02-80-90	10/12/2022	80	90	x		2	x	x		
GW-SB-BR-02	SB-BR-02-90-100	10/12/2022	90	100	x		2	x	x		Sheen
GW-SB-BR-02	SB-BR-02-100-108.5	10/13/2022	100	109	x		2	x	x		Sheen
GW-SB-BR-02	SB-BR-02-110-120	10/13/2022	110	120	x		2	x	x		Sheen
GW-SB-BR-02	SB-BR-02-120-140	10/14/2022	120	140	x		2	x	x		
GW-SB-BR-02	SB-BR-02-140-160	10/20/2022	140	160	x		x	x		x	
GW-SB-BR-03	SB-BR-03-90-100	10/4/2022	90	100	x		2	x	x		
GW-SB-BR-03	SB-BR-03-100-110	10/5/2022	100	110	x		2	x	x		
GW-SB-BR-03	SB-BR-03-110-120	10/6/2022	110	120		x	2	x	x		Slow Recharge
GW-SB-BR-03	SB-BR-03-120-140	10/6/2022	120	140	x		2	x	x		
GW-SB-BR-03	SB-BR-03-140-150	10/10/2022	140	150		x	2	x	x		Slow Recharge
GW-SB-BR-03	SB-BR-03-150-160	10/10/2022	150	160	x		2	x		x	
GW-SB-BR-04	SB-BR-04-120-130	10/28/2022	120	130		x	2	x	x		Slow Recharge
GW-SB-BR-04	SB-BR-04-130-140	11/17/2022	130	140	x		x	x		x	
GW-SB-BR-04	SB-BR-04-140-160	11/15/2022	140	160	x		x	x		x	
GW-SB-BR-05	SB-BR-05-90-100	12/19/2022	90	100	x		2	x	x		
GW-SB-BR-05	SB-BR-05-100-120	12/20/2022	100	120	x		2	x	x		
GW-SB-BR-05	SB-BR-05-120-130	12/21/2022	120	130	x		2	x	x		Sheen
GW-SB-BR-05	SB-BR-05-130-140	1/10/2023	130	140	x		x	x		x	
GW-SB-BR-05	--	--	140	160		x	1			x	No Sample. Insufficient Recharge
GW-SB-BR-06	SB-BR-06-70-90	1/4/2023	70	90	x		2	x	x		
GW-SB-BR-06	SB-BR-06-90-100	1/13/2023	90	100	x			x		x	
GW-SB-BR-06	SB-BR-06-100-120	1/12/2023	100	120	x		x	x		x	
GW-SB-BR-06	SB-BR-06-120-140	1/12/2023	120	140	x		x	x		x	
GW-SB-BR-06	SB-BR-06-140-160	1/12/2023	140	160	x			x		x	
GW-SB-BR-07	SB-BR-07-90-100	1/11/2023	90	100	x		x	x		x	
GW-SB-BR-07	SB-BR-07-100-120	1/11/2023	100	120	x			x		x	
GW-SB-BR-07	SB-BR-07-120-140	1/11/2023	120	140	x		x	x		x	
GW-SB-BR-07	--	--	140	160		x				x	No Sample. Insufficient Recharge
GW-SB-BR-10	SB-BR-10-105-115	11/7/2022	105	115	x		2	x	x		
GW-SB-BR-10	SB-BR-10-115-125	11/7/2022	115	125	x		2	x	x		
GW-SB-BR-10	SB-BR-10-125-135	11/8/2022	125	135	x		2	x	x		
GW-SB-BR-10	SB-BR-10-135-140	11/15/2022	135	140	x		x	x		x	Sheen
GW-SB-BR-10	SB-BR-10-140-160	11/15/2022	140	160	x		x	x		x	NAPL
GW-SB-BR-11	SB-BR-11-110-120	12/13/2022	110	120	x		x	x		x	
GW-SB-BR-11	SB-BR-11-120-140	12/12/2022	120	140	x		x	x		x	
GW-SB-BR-11	SB-BR-11-140-160	12/12/2022	140	160		x		x		x	Very Slow Recharge
GW-SB-BR-12	SB-BR-12-115-140	11/14/2022	115	140	x		x	x		x	
GW-SB-BR-12	SB-BR-12-140-160	11/14/2022	140	160	x			x		x	
GW-SB-BR-12	SB-BR-13-120-140	11/21/2022	120	140	x		2	x	x		
GW-SB-BR-13	SB-BR-13-140-150	11/22/2022	140	150	x		2	x	x		
GW-SB-BR-13	SB-BR-13-190-200	12/6/2022	190	200		x		x		x	Very Slow Recharge
GW-SB-BR-LIF16	SB-BR-LIF16-83-110	9/21/2022	83	110	x		2	x	x		
GW-SB-BR-LIF16	SB-BR-LIF16-110-120	9/21/2022	110	120	x		2	x	x		
GW-SB-BR-LIF16	SB-BR-LIF16-120-130	9/21/2022	120	130	x		2	x	x		
GW-SB-BR-LIF16	SB-BR-LIF16-130-140	9/26/2022	130	140	x		x	x		x	
GW-SB-BR-LIF16	SB-BR-LIF16-140-160	9/26/2022	140	160	x			x		x	
GW-SB-BR-LIF18	SB-BR-LIF18-110-120	9/19/2022	110	120		x	x	x		x	Very Slow Recharge
GW-SB-BR-LIF18	--	--	120	130		x				x	No Sample. Insufficient Recharge
GW-SB-BR-LIF18	SB-BR-LIF18-130-140	9/28/2022	130	140	x			x		x	
GW-SB-BR-LIF18	SB-BR-LIF18-140-160	9/29/2022	140	160		x		x		x	Very Slow Recharge
GW-SB-BR-LIF22	SB-BR-LIF22-90-100	9/27/2022	90	100	x		2	x	x		
GW-SB-BR-LIF22	SB-BR-LIF22-100-120	9/28/2022	100	120	x		2	x	x		Sheen
GW-SB-BR-LIF22	SB-BR-LIF22-120-140	10/20/2022	120	140	x		x	x		x	
GW-SB-BR-LIF22	SB-BR-LIF22-140-160	10/10/2022	140	160	x			x		x	
GW-SB-MW-22	SB-MW-22-120-130	11/21/2022	120	130	x		x	x		x	
GW-SB-MW-22	SB-MW-22-130-140	11/21/2022	130	140		x		x		x	Very Slow Recharge
GW-SB-MW-22	SB-MW-22-140-150	11/18/2022	140	150		x		x		x	Very Slow Recharge
GW-SB-MW-22	SB-MW-22-150-160	11/16/2022	150	160		x		x		x	Very Slow Recharge

Notes:
1 = borehole geophysics indicated flow.
2 = borehole geophysical data not available

Table 3-1
Summary of Heat Pulse Flow Meter Results
GCL Tie and Treating Superfund Site
Sidney, New York

Borhole ID	Starting Depth (feet)	Ending Depth (feet)	Description	NAPL (presence/absence)
SB-BR-01	85.2	85.5	Flow into and down the borehole under ambient conditions	
			Flow into and up the borehole under pumping conditions	
	87.6	95.5	Possible minor flow into or out of the borehole based on the fluid conductivity data	
	102.1	104.3	Flow into and up the borehole under pumping conditions	NAPL
	127.3	127.8	Flow out of the borehole under ambient conditions	NAPL
			Flow into and up the borehole under pumping conditions	NAPL
SB-BR-02	140.1	141.2	Flow into and up the borehole under pumping conditions	
SB-BR-04	130.0	131.4	Flow into and up the borehole under pumping conditions	
SB-BR-05	130.1	131.0	Flow into and up the borehole under pumping conditions	
			Flow into and down the borehole under ambient conditions	
	136.5	140.5	Flow into borehole based on the fluid temp & fluid cond data	
	144.9	147.4	Flow out of the borehole under ambient conditions	
SB-BR-06	114.1	114.7	Flow into and up the borehole under pumping conditions	
	133.7	134.6	Flow into and up the borehole under pumping conditions	
SB-BR-07	98.0	100.8	Flow into and down the borehole under ambient conditions	
			Flow into and up the borehole under pumping conditions	
	129.1	129.9	Flow out of the borehole under ambient conditions	
			Flow out of the borehole under pumping conditions	
	133.6	134.1	Flow out of the borehole under ambient conditions	
SB-BR-10	135.2	136.3	Flow into and down the borehole under ambient conditions	NAPL
			Flow into and up the borehole under pumping conditions	NAPL
	155.8	156.7	Flow out of the borehole under ambient conditions	NAPL
SB-BR-11	113.0	114.4	Flow into and down the borehole under ambient conditions	
			Flow into and up the borehole under pumping conditions	
	131.1	132.7	Flow out of the borehole under ambient conditions	
			Flow into and up the borehole under pumping conditions	
SB-BR-12	115.2	116.5	Flow into and down the borehole under ambient conditions	
			Flow into and up the borehole under pumping conditions	
	127.4	128.9	Flow out of the borehole under ambient conditions	
			Flow into and up the borehole under pumping conditions	
	135.7	136.4	Possible minor flow into or out of the borehole based on the fluid conductivity data	
SB-BR-13	140.1	142.0	Flow into and up the borehole under pumping conditions	
	150.2	150.5	Flow into and up the borehole under pumping conditions	
SB-BR-LIF-16	130.2	132.7	Possible flow into or out of the borehole based on the fluid cond & fluid temp data	
SB-BR-LIF-18	115.9	119.4	Flow into and up the borehole under pumping conditions	NAPL
SB-BR-LIF-22	125.7	127.1	Flow into and up the borehole under pumping conditions	
	131.5	132.4	Flow into and up the borehole under pumping conditions	
	133.9	135.3	Possible minor flow into or out of the borehole based on the fluid conductivity data	
MW-22	125.6	126.2	Flow into and up the borehole under pumping conditions	

Source: Hager-Richter Geoscience, Inc.

Table 3-2
Synoptic Water Level Elevations
GCL Tie and Treating Superfund Site
Sidney, New York

Well ID	Water Level Date	Geologic Unit	Screen Top (ft bTOC)	Screen Bottom (ft bTOC)	TOC Elevation (ft elev)	Depth to Water (ft bTOC)	Groundwater Elevation (ft amsl)
Shallow Water Bearing Unit							
PZ-01S	11/14/2022	Overburden	5.00	15.00	994.52	5.96	988.56
PZ-02S	11/11/2022	Overburden	5.00	15.00	994.52	9.17	985.35
PZ-03S	11/10/2022	Overburden	5.00	15.00	995.33	6.27	989.06
MW-01S	11/10/2022	Overburden	6.00	16.00	997.41	6.98	990.43
MW-02S	11/14/2022	Overburden	9.00	19.00	993.00	8.37	984.63
MW-03S	11/11/2022	Overburden	9.50	19.50	994.84	12.44	982.40
MW-05S	11/14/2022	Overburden	4.00	14.00	996.10	6.45	989.65
MW-07S	11/10/2022	Overburden	8.00	18.00	996.50	9.49	987.01
MW-17S	11/11/2022	Overburden	13.00	18.00	--	8.74	--
Intermediate Water Bearing Unit							
EW-1I	11/11/2022	Overburden	41.30	56.30	*997.27*	19.75	977.52
EW-2I	11/14/2022	Overburden	45.40	59.40	*997.50*	18.48	979.02
EW-3I	2/14/2023	Overburden	45.50	60.50	*995.45*	15.91	979.54
EW-4I	11/10/2022	Overburden	70.50	90.50	--	26.00	--
EW-5I	11/14/2022	Overburden	35.10	55.10	*995.84*	17.40	978.44
MW-01D	11/10/2022	Overburden	64.00	74.00	996.73	9.95	986.78
MW-02I	11/14/2022	Overburden	25.00	35.00	995.42	8.20	987.22
MW-03I	11/11/2022	Overburden	50.00	60.00	994.73	17.88	976.85
MW-05I	11/14/2022	Overburden	35.00	45.00	995.13	17.95	977.18
MW-07I	11/10/2022	Overburden	38.00	48.00	997.50	24.30	973.20
MW-08DI	11/10/2022	Overburden	100.00	110.00	*995.88*	28.71	967.17
MW-10I	11/11/2022	Overburden	55.00	70.00	*998.32*	26.10	972.22
MW-11I	11/10/2022	Overburden	95.00	105.00	*1002.49*	30.14	972.35
MW-12I	11/10/2022	Overburden	45.00	55.00	*995.41*	20.53	974.88
MW-13I	11/11/2022	Overburden	125.00	135.00	*1003.92*	32.81	971.11
MW-14I	11/11/2022	Overburden	106.50	116.50	*1005.25*	35.03	970.22
MW-15I	11/11/2022	Overburden	113.00	123.00	--	33.80	--
MW-17I	11/11/2022	Overburden	50.00	60.00	--	16.12	--
MW-21I	11/12/2022	Overburden	105.00	115.00	998.26	27.69	970.57
MW-22I	1/12/2023	Overburden	40.00	50.00	--	16.19	--
PZ-01I	11/14/2022	Overburden	42.10	52.10	994.30	7.58	986.72
PZ-02I	11/11/2022	Overburden	40.00	50.00	995.34	16.80	978.54
Bedrock Water Bearing Unit							
MW-03B	11/11/2022	Bedrock	95.00	131.40	*996.13*	22.25	973.88
MW-05D	11/14/2022	Bedrock	91.00	101.00	994.52	18.15	976.37
MW-07D	11/10/2022	Bedrock	122.00	132.00	997.60	26.54	971.06
MW-07B	11/10/2022	Bedrock	126.00	136.00	998.22	25.33	972.89
MW-08B	11/10/2022	Bedrock	105.00	115.00	*998.26*	23.25	975.01
MW-10B	11/11/2022	Bedrock	150.00	160.00	*998.10*	26.38	971.72
MW-11B	11/10/2022	Bedrock	150.00	170.00	*1002.51*	33.99	968.52
MW-12B	11/10/2022	Bedrock	120.00	130.00	*995.55*	22.60	972.95
MW-13B	11/11/2022	Bedrock	159.00	169.00	*1003.72*	33.49	970.23
MW-14B	11/11/2022	Bedrock	178.00	188.00	*1004.58*	35.88	968.70
MW-15B	11/11/2022	Bedrock	179.00	189.00	--	33.93	--
MW-17B	11/11/2022	Bedrock	91.50	110.00	--	14.90	--
MW-18B	1/12/2023	Bedrock	110.50	135.00	--	8.61	--
MW-19B	11/11/2022	Bedrock	85.50	105.00	--	15.70	--
MW-20B	11/11/2022	Bedrock	85.50	105.00	--	18.69	--
MW-21B	11/10/2022	Bedrock	137.00	147.00	998.26	28.60	969.66
MW-22B	1/12/2023	Bedrock	--	--	--	17.96	--

amsl = above mean sea level
btoc = below top of casing
ft = feet

Table 3-3
Vertical Hydraulic Gradients
GCL Tie and Treating Superfund Site
Sidney, New York

Well ID	Type	DTW (ft TOC)	Top of Casing Elevation (ft amsl)	Groundwater Elevation (ft amsl)	Screen Top (ft amsl)	Screen Bottom (ft amsl)	Vertical Head Direction	Vertical Head (ft)	Vertical Gradient (ft per foot)
MW-01S	Overburden	6.98	997.41	990.43	991.13	981.13	Down	3.65	0.06
MW-01D	Overburden	9.95	996.73	986.78	931.66	921.66			
MW-03S	Overburden	12.44	994.84	982.40	983.58	973.58	Down	8.52	0.09
MW-03I	Overburden	17.88	994.73	976.85	944.51	934.51			
MW-03B	Bedrock	22.25	996.13	973.88	901.13	864.73			
MW-05S	Overburden	6.45	996.10	989.65	990.77	980.77	Down	13.28	0.15
MW-05I	Overburden	17.95	995.13	977.18	959.90	949.90			
MW-05D	Overburden	18.15	994.52	976.37	902.33	892.33			
MW-07S	Overburden	9.49	996.50	987.01	990.39	980.39	Down	14.12	0.12
MW-07I	Overburden	24.30	999.70	975.40	961.70	951.70			
MW-07D	Bedrock	26.54	997.60	971.06	877.77	867.77			
MW-07B	Bedrock	25.33	998.22	972.89	872.22	862.22			
MW-10I	Overburden	26.10	998.32	972.22	943.32	928.32	Down	0.50	0.01
MW-10B	Bedrock	26.38	998.10	971.72	848.10	838.10			
MW-11I	Overburden	30.14	1002.49	972.35	907.49	897.49	Down	3.83	0.06
MW-11B	Bedrock	33.99	1002.51	968.52	852.51	832.51			
MW-12I	Overburden	20.53	995.41	974.88	950.41	940.41	Down	1.93	0.03
MW-12B	Bedrock	22.60	995.55	972.95	875.55	865.55			
MW-13I	Overburden	32.81	1003.92	971.11	878.92	868.92	Down	0.88	0.03
MW-13B	Bedrock	33.49	1003.72	970.23	844.72	834.72			
MW-14I	Overburden	35.03	1005.25	970.22	898.75	888.75	Down	1.52	0.02
MW-14B	Bedrock	35.88	1004.58	968.70	826.58	816.58			

ft=feet
TOC=top of casing
amsl=above mean sea level

Table 4-1
Relative Percent Difference - Packer Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

Location:			SB-BR-01			SB-BR-01			Ground Water RPD %	SB-BR-06			SB-BR-06			Ground Water RPD %	SB-BR-10			SB-BR-10			Ground Water RPD %
Sample:			GW-SB-BR-01-85-100			GW-SB-BR-01-85-100-1				GW-SB-BR-06-70-90			GW-SB-BR-06-70-90-1				GW-SB-BR-10-135-140			GW-SB-BR-10-135-140-1			
Start Depth (ft):			85			85				70			70				135			135			
End Depth (ft):			100			100				90			90				140			140			
Sample Date:			10/21/2022			10/21/2022				1/4/2023			1/4/2023				11/15/2022			11/15/2022			
Analyte	CAS	Unit	Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL	
VOCs																							
1,1,1-Trichloroethane	71-55-6	ug/l	0.62	J	1	0.6	J	1	3.28%		U	1		U	1	x	4.2		1	3.7		1	12.66%
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,1,2-Trichloroethane	79-00-5	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,1-Dichloroethane	75-34-3	ug/l	0.68	J	1		U	1			U	1		U	1	x	5.3		1	5		1	5.83%
1,1-Dichloroethene	75-35-4	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2,3-Trichlorobenzene	87-61-6	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2,3-Trichloropropane	96-18-4	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2,4-Trichlorobenzene	120-82-1	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2,4-Trimethylbenzene	95-63-6	ug/l	1		1	1		1	0.00%		U	1		U	1	x	1.3		1	1.2		1	8.00%
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2-Dibromoethane	106-93-4	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2-Dichlorobenzene	95-50-1	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2-Dichloroethane	107-06-2	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,2-Dichloropropane	78-87-5	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	0.54	J	1	0.54	J	1	0.00%		U	1		U	1	x	1.2		1	1.1		1	8.70%
1,3-Dichlorobenzene	541-73-1	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
1,4-Dichlorobenzene	106-46-7	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
2-Butanone	78-93-3	ug/l		U	10		U	10	x		U	10		U	10	x		U	10		U	10	x
2-Hexanone	591-78-6	ug/l		U	10		U	10	x		U	10		U	10	x		U	10		U	10	x
4-Methyl-2-Pentanone	108-10-1	ug/l		U	10		U	10	x		U	10		U	10	x		U	10		U	10	x
Acetone	67-64-1	ug/l		U	10		U	10	x		U	10		U	10	x		U	10		U	10	x
Benzene	71-43-2	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Bromochloromethane	74-97-5	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Bromodichloromethane	75-27-4	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Bromoform	75-25-2	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Bromomethane	74-83-9	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Carbon Disulfide	75-15-0	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Carbon Tetrachloride	56-23-5	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Chlorobenzene	108-90-7	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Chloroethane	75-00-3	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Chloroform	67-66-3	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Chloromethane	74-87-3	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
cis-1,2-Dichloroethene	156-59-2	ug/l	3.4		1	3.3		1	2.99%	0.7	J	1	0.7	J	1	0.00%	13		1	11		1	16.67%
cis-1,3-Dichloropropene	10061-01-5	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Cyclohexane	110-82-7	ug/l		U	1		U	1	x		U	1		U	1	x		UJ	1		UJ	1	x
Dibromochloromethane	124-48-1	ug/l		U	1		U	1	x	0.4	J	1	0.48	J	1	18.18%		U	1		U	1	x
Dichlorodifluoromethane	75-71-8	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Ethylbenzene	100-41-4	ug/l		U	1		U	1	x		U	1		U	1	x	0.44	J	1	0.44	J	1	0.00%
Isopropylbenzene	98-82-8	ug/l		U	1		U	1	x		U	1		U	1	x	0.14	J	1		U	1	
M, P Xylenes	179601-23-1	ug/l	0.28	J	1	0.28	J	1	0.00%		U	1		U	1	x	1.4		1	1.4		1	0.00%
Methyl Acetate	79-20-9	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Methyl tert-Butyl Ether	1634-04-4	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Methylcyclohexane	108-87-2	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Methylene Chloride	75-09-2	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	0.14	J	1		U	1			U	1		U	1	x	1.1		1	1		1	9.52%
Styrene	100-42-5	ug/l		U	1		U	1	x	0.22	J	1	0.28	J	1	24.00%		U	1		U	1	x
Tetrachloroethene (PCE)	127-18-4	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Toluene	108-88-3	ug/l	5.7		1	5.6		1	1.77%	5.5		1	5.2		1	5.61%	4.9		1	4.6		1	6.32%
trans-1,2-Dichloroethene	156-60-5	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
trans-1,3-Dichloropropene	10061-02-6	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x

Table 4-1
Relative Percent Difference - Packer Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

Location:			SB-BR-01			SB-BR-01			Ground Water RPD %	SB-BR-06			SB-BR-06			Ground Water RPD %	SB-BR-10			SB-BR-10			Ground Water RPD %
Sample:			GW-SB-BR-01-85-100			GW-SB-BR-01-85-100-1				GW-SB-BR-06-70-90			GW-SB-BR-06-70-90-1				GW-SB-BR-10-135-140			GW-SB-BR-10-135-140-1			
Start Depth (ft):			85			85				70			70				135			135			
End Depth (ft):			100			100				90			90				140			140			
Sample Date:			10/21/2022			10/21/2022				1/4/2023			1/4/2023				11/15/2022			11/15/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Trichloroethene (TCE)	79-01-6	ug/l	0.68	J	1	0.68	J	1	0.00%	0.66	J	1	0.64	J	1	3.08%	2.7		1	2.4		1	11.76%
Trichlorofluoromethane	75-69-4	ug/l		U	1		U	1	x		U	1		U	1	x		U	1		U	1	x
Vinyl Chloride	75-01-4	ug/l		U	1		U	1	x		U	1		U	1	x	4		1	3.8		1	5.13%
SVOCs																							
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	2.4		2	2.4		2	0.00%		U	2		U	2	x		U	43		U	22	x
1-methylnaphthalene	90-12-0	ug/l	17		4.9	15		4.9	12.50%		U	5		U	4.9	x	120		110	90		54	28.57%
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2,4,5-Trichlorophenol	95-95-4	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2,4,6-Trichlorophenol	88-06-2	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2,4-Dichlorophenol	120-83-2	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2,4-Dimethylphenol	105-67-9	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2,4-Dinitrophenol	51-28-5	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
2,4-Dinitrotoluene	121-14-2	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2,6-Dinitrotoluene	606-20-2	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2-Chloronaphthalene	91-58-7	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2-Chlorophenol	95-57-8	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2-Methylnaphthalene	91-57-6	ug/l	35		4.9	31		4.9	12.12%		U	5		U	4.9	x	97	J	110	82		54	16.76%
2-Methylphenol (O-Cresol)	95-48-7	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
2-Nitroaniline	88-74-4	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
2-Nitrophenol	88-75-5	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
3,3'-Dichlorobenzidine	91-94-1	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
3-Nitroaniline	99-09-2	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
4-Bromophenyl Phenyl Ether	101-55-3	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
4-Chloro-3-Methylphenol	59-50-7	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
4-Chloroaniline	106-47-8	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
4-Methylphenol (P-Cresol)	106-44-5	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
4-Nitroaniline	100-01-6	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
4-Nitrophenol	100-02-7	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Acenaphthene	83-32-9	ug/l	28		4.9	26		4.9	7.41%		U	5		U	4.9	x	370		110	240		54	42.62%
Acenaphthylene	208-96-8	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Acetophenone	98-86-2	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Anthracene	120-12-7	ug/l	3.5	J	4.9	3.2	J	4.9	8.96%		U	5		U	4.9	x	80	J	110		U	54	
Atrazine	1912-24-9	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Benzaldehyde	100-52-7	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Benzo(a)anthracene	56-55-3	ug/l	4.7	J	4.9	3.7	J	4.9	23.81%		U	5		U	4.9	x	170		110		U	54	
Benzo(a)pyrene	50-32-8	ug/l		UJ	4.9		R	4.9			U	5		U	4.9	x		U	110		U	54	x
Benzo(b)fluoranthene	205-99-2	ug/l		UJ	4.9		R	4.9			U	5		U	4.9	x	94	J	110		U	54	
Benzo(g,h,i)perylene	191-24-2	ug/l		UJ	4.9		R	4.9			U	5		U	4.9	x		U	110		U	54	x
Benzo(k)fluoranthene	207-08-9	ug/l		UJ	4.9		R	4.9			U	5		U	4.9	x		U	110		U	54	x
Benzyl Butyl Phthalate	85-68-7	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Biphenyl (Diphenyl)	92-52-4	ug/l	7.4		4.9	6.6		4.9	11.43%		U	5		U	4.9	x		U	110	55		54	x
bis(2-Chloroethoxy) Methane	111-91-1	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l		U	4.9		U	4.9	x	7.9		5		U	4.9			U	110		U	54	x
Caprolactam	105-60-2	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Carbazole	86-74-8	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Chrysene	218-01-9	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x	96	J	110		U	54	
Dibenz(a,h)anthracene	53-70-3	ug/l		UJ	4.9		R	4.9			U	5		U	4.9	x		U	110		U	54	x

Table 4-1
Relative Percent Difference - Packer Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

Location:			SB-BR-01			SB-BR-01			Ground Water RPD %	SB-BR-06			SB-BR-06			Ground Water RPD %	SB-BR-10			SB-BR-10			Ground Water RPD %
Sample:			GW-SB-BR-01-85-100			GW-SB-BR-01-85-100-1				GW-SB-BR-06-70-90			GW-SB-BR-06-70-90-1				GW-SB-BR-10-135-140			GW-SB-BR-10-135-140-1			
Start Depth (ft):			85			85				70			70				135			135			
End Depth (ft):			100			100				90			90				140			140			
Sample Date:			10/21/2022			10/21/2022				1/4/2023			1/4/2023				11/15/2022			11/15/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Dibenzofuran	132-64-9	ug/l	22		4.9	20		4.9	9.52%		U	5		U	4.9	x	310		110	190		54	48.00%
Diethyl Phthalate	84-66-2	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Dimethyl Phthalate	131-11-3	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Di-N-Butyl Phthalate	84-74-2	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Di-N-Octylphthalate	117-84-0	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Fluoranthene	206-44-0	ug/l	25		4.9	22		4.9	12.77%		U	5		U	4.9	x	800		110	240		54	107.69%
Fluorene	86-73-7	ug/l	25		4.9	23		4.9	8.33%		U	5		U	4.9	x	380		110	210		54	57.63%
Hexachlorobenzene	118-74-1	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Hexachlorobutadiene	87-68-3	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Hexachlorocyclopentadiene	77-47-4	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Hexachloroethane	67-72-1	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l		UJ	4.9		R	4.9			U	5		U	4.9	x		U	110		U	54	x
Isophorone	78-59-1	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Naphthalene	91-20-3	ug/l	43		4.9	39		4.9	9.76%		U	5		U	4.9	x	91	J	110	87		54	4.49%
Nitrobenzene	98-95-3	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
N-Nitrosodi-N-Propylamine	621-64-7	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
N-Nitrosodiphenylamine	86-30-6	ug/l		U	4.9		U	4.9	x		U	5		U	4.9	x		U	110		U	54	x
Pentachlorophenol	87-86-5	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Phenanthrene	85-01-8	ug/l	61		4.9	56		4.9	8.55%		U	5		U	4.9	x	1300		110	530		54	84.15%
Phenol	108-95-2	ug/l		U	9.8		U	9.8	x		U	10		U	9.8	x		U	220		U	110	x
Pyrene	129-00-0	ug/l	16		4.9	14		4.9	13.33%		U	5		U	4.9	x	540		110	160		54	108.57%
Parameters																							
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l															11		4	8.5		4	25.64%
Total Petroleum Hydrocarbons	TPH	mg/l															4.8		4		U	4	
Number of non-detect pairs									**95**							**117**							**98**
Number of calculated RPD pairs									**20**							**5**							**21**
Maximum RPD									**23.8%**							**24.0%**							**####**
Minimum RPD									**0.0%**							**0.0%**							**0.0%**
Number of calculated RPD pairs exceeding 50% RPD limit									**0**							**0**							**4**

Table 4-1
Relative Percent Difference - Packer Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

Location: / Sample: / Start Depth (ft): / End Depth (ft): / Sample Date:			SB-BR-LIF16 GW-SB-BR-LIF16-110-120 110 120 9/21/2022			SB-BR-LIF16 GW-SB-BR-LIF16-110-120-1 110 120 9/21/2022			Ground Water RPD %
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
VOCs									
1,1,1-Trichloroethane	71-55-6	ug/l	11		1	11		1	0.00%
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		U	1		U	1	x
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l		U	1		U	1	x
1,1,2-Trichloroethane	79-00-5	ug/l		U	1		U	1	x
1,1-Dichloroethane	75-34-3	ug/l	12		1	12		1	0.00%
1,1-Dichloroethene	75-35-4	ug/l		U	1		U	1	x
1,2,3-Trichlorobenzene	87-61-6	ug/l		U	1		U	1	x
1,2,3-Trichloropropane	96-18-4	ug/l		U	1		U	1	x
1,2,4-Trichlorobenzene	120-82-1	ug/l		U	1		U	1	x
1,2,4-Trimethylbenzene	95-63-6	ug/l	2.7		1	2.7		1	0.00%
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l		U	1		U	1	x
1,2-Dibromoethane	106-93-4	ug/l		U	1		U	1	x
1,2-Dichlorobenzene	95-50-1	ug/l		U	1		U	1	x
1,2-Dichloroethane	107-06-2	ug/l	0.64	J	1	0.62	J	1	3.17%
1,2-Dichloropropane	78-87-5	ug/l		U	1		U	1	x
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	1.8		1	1.8		1	0.00%
1,3-Dichlorobenzene	541-73-1	ug/l		U	1		U	1	x
1,4-Dichlorobenzene	106-46-7	ug/l		U	1		U	1	x
2-Butanone	78-93-3	ug/l		U	10		U	10	x
2-Hexanone	591-78-6	ug/l		U	10		U	10	x
4-Methyl-2-Pentanone	108-10-1	ug/l		U	10		U	10	x
Acetone	67-64-1	ug/l		U	10		U	10	x
Benzene	71-43-2	ug/l		U	1		U	1	x
Bromochloromethane	74-97-5	ug/l		U	1		U	1	x
Bromodichloromethane	75-27-4	ug/l		U	1		U	1	x
Bromoform	75-25-2	ug/l		U	1		U	1	x
Bromomethane	74-83-9	ug/l		U	1		U	1	x
Carbon Disulfide	75-15-0	ug/l		U	1		U	1	x
Carbon Tetrachloride	56-23-5	ug/l		U	1		U	1	x
Chlorobenzene	108-90-7	ug/l		U	1		U	1	x
Chloroethane	75-00-3	ug/l		U	1		U	1	x
Chloroform	67-66-3	ug/l		U	1		U	1	x
Chloromethane	74-87-3	ug/l		U	1		U	1	x
cis-1,2-Dichloroethene	156-59-2	ug/l	47		2.5	47		2.5	0.00%
cis-1,3-Dichloropropene	10061-01-5	ug/l		U	1		U	1	x
Cyclohexane	110-82-7	ug/l		U	1		U	1	x
Dibromochloromethane	124-48-1	ug/l		U	1		U	1	x
Dichlorodifluoromethane	75-71-8	ug/l		U	1		U	1	x
Ethylbenzene	100-41-4	ug/l	0.64	J	1	0.64	J	1	0.00%
Isopropylbenzene	98-82-8	ug/l		U	1		U	1	x
M, P Xylenes	179601-23-1	ug/l	2.5		1	2.6		1	3.92%
Methyl Acetate	79-20-9	ug/l		U	1		U	1	x
Methyl tert-Butyl Ether	1634-04-4	ug/l	1.2		1	1.2		1	0.00%
Methylcyclohexane	108-87-2	ug/l		U	1		U	1	x
Methylene Chloride	75-09-2	ug/l		U	1		U	1	x
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	1.7		1	1.7		1	0.00%
Styrene	100-42-5	ug/l		U	1		U	1	x
Tetrachloroethene (PCE)	127-18-4	ug/l		U	1		U	1	x
Toluene	108-88-3	ug/l	0.92	J	1	0.96	J	1	4.26%
trans-1,2-Dichloroethene	156-60-5	ug/l		U	1		U	1	x
trans-1,3-Dichloropropene	10061-02-6	ug/l		U	1		U	1	x

Table 4-1
Relative Percent Difference - Packer Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

Location:			**SB-BR-LIF16**			**SB-BR-LIF16**			**Ground Water RPD %**
Sample:			**GW-SB-BR-LIF16-110-120**			**GW-SB-BR-LIF16-110-120-1**			
Start Depth (ft):			**110**			**110**			
End Depth (ft):			**120**			**120**			
Sample Date:			**9/21/2022**			**9/21/2022**			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Trichloroethene (TCE)	79-01-6	ug/l	14		1	14		1	0.00%
Trichlorofluoromethane	75-69-4	ug/l		U	1		U	1	x
Vinyl Chloride	75-01-4	ug/l	4.8		1	4.9		1	2.06%
SVOCs									
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l		U	4.8		U	4.8	x
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	15		1.9	14		1.9	6.90%
1-methylnaphthalene	90-12-0	ug/l	29		4.8	27		4.8	7.14%
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l		U	4.8		U	4.8	x
2,4,5-Trichlorophenol	95-95-4	ug/l		U	4.8		U	4.8	x
2,4,6-Trichlorophenol	88-06-2	ug/l		U	4.8		U	4.8	x
2,4-Dichlorophenol	120-83-2	ug/l		U	4.8		U	4.8	x
2,4-Dimethylphenol	105-67-9	ug/l		U	4.8		U	4.8	x
2,4-Dinitrophenol	51-28-5	ug/l		U	9.6		U	9.6	x
2,4-Dinitrotoluene	121-14-2	ug/l		U	4.8		U	4.8	x
2,6-Dinitrotoluene	606-20-2	ug/l		U	4.8		U	4.8	x
2-Chloronaphthalene	91-58-7	ug/l		U	4.8		U	4.8	x
2-Chlorophenol	95-57-8	ug/l		U	4.8		U	4.8	x
2-Methylnaphthalene	91-57-6	ug/l	5.9		4.8	5.4		4.8	8.85%
2-Methylphenol (O-Cresol)	95-48-7	ug/l		U	9.6		U	9.6	x
2-Nitroaniline	88-74-4	ug/l		U	4.8		U	4.8	x
2-Nitrophenol	88-75-5	ug/l		U	4.8		U	4.8	x
3,3'-Dichlorobenzidine	91-94-1	ug/l		U	9.6		U	9.6	x
3-Nitroaniline	99-09-2	ug/l		U	9.6		U	9.6	x
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l		U	9.6		U	9.6	x
4-Bromophenyl Phenyl Ether	101-55-3	ug/l		U	4.8		U	4.8	x
4-Chloro-3-Methylphenol	59-50-7	ug/l		U	4.8		U	4.8	x
4-Chloroaniline	106-47-8	ug/l		U	9.6		U	9.6	x
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l		U	4.8		U	4.8	x
4-Methylphenol (P-Cresol)	106-44-5	ug/l		U	9.6		U	9.6	x
4-Nitroaniline	100-01-6	ug/l		U	9.6		U	9.6	x
4-Nitrophenol	100-02-7	ug/l		U	9.6		U	9.6	x
Acenaphthene	83-32-9	ug/l	33		4.8	31		4.8	6.25%
Acenaphthylene	208-96-8	ug/l		U	4.8		U	4.8	x
Acetophenone	98-86-2	ug/l		U	9.6		U	9.6	x
Anthracene	120-12-7	ug/l		U	4.8		U	4.8	x
Atrazine	1912-24-9	ug/l		U	9.6		U	9.6	x
Benzaldehyde	100-52-7	ug/l		U	9.6		U	9.6	x
Benzo(a)anthracene	56-55-3	ug/l		U	4.8		U	4.8	x
Benzo(a)pyrene	50-32-8	ug/l		U	4.8		U	4.8	x
Benzo(b)fluoranthene	205-99-2	ug/l		U	4.8		U	4.8	x
Benzo(g,h,i)perylene	191-24-2	ug/l		U	4.8		U	4.8	x
Benzo(k)fluoranthene	207-08-9	ug/l		U	4.8		U	4.8	x
Benzyl Butyl Phthalate	85-68-7	ug/l		U	4.8		U	4.8	x
Biphenyl (Diphenyl)	92-52-4	ug/l	7.9		4.8	7.3		4.8	7.89%
bis(2-Chloroethoxy) Methane	111-91-1	ug/l		U	4.8		U	4.8	x
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l		U	9.6		U	9.6	x
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l		U	9.6		U	9.6	x
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l		U	4.8		U	4.8	x
Caprolactam	105-60-2	ug/l		U	9.6		U	9.6	x
Carbazole	86-74-8	ug/l	5.2	J	9.6	4.8	J	9.6	8.00%
Chrysene	218-01-9	ug/l		U	4.8		U	4.8	x
Dibenz(a,h)anthracene	53-70-3	ug/l		U	4.8		U	4.8	x

Table 4-1
Relative Percent Difference - Packer Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

		Location:	**SB-BR-LIF16**			**SB-BR-LIF16**			**Ground Water RPD %**
		Sample:	**GW-SB-BR-LIF16-110-120**			**GW-SB-BR-LIF16-110-120-1**			
		Start Depth (ft):	**110**			**110**			
		End Depth (ft):	**120**			**120**			
		Sample Date:	**9/21/2022**			**9/21/2022**			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Dibenzofuran	132-64-9	ug/l	22		4.8	20		4.8	9.52%
Diethyl Phthalate	84-66-2	ug/l		U	4.8		U	4.8	x
Dimethyl Phthalate	131-11-3	ug/l		U	4.8		U	4.8	x
Di-N-Butyl Phthalate	84-74-2	ug/l		U	4.8		U	4.8	x
Di-N-Octylphthalate	117-84-0	ug/l		U	9.6		U	9.6	x
Fluoranthene	206-44-0	ug/l		U	4.8		U	4.8	x
Fluorene	86-73-7	ug/l	17		4.8	16		4.8	6.06%
Hexachlorobenzene	118-74-1	ug/l		U	4.8		U	4.8	x
Hexachlorobutadiene	87-68-3	ug/l		U	4.8		U	4.8	x
Hexachlorocyclopentadiene	77-47-4	ug/l		U	9.6		U	9.6	x
Hexachloroethane	67-72-1	ug/l		U	4.8		U	4.8	x
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l		U	4.8		U	4.8	x
Isophorone	78-59-1	ug/l		U	4.8		U	4.8	x
Naphthalene	91-20-3	ug/l	170		24	170		24	0.00%
Nitrobenzene	98-95-3	ug/l		U	4.8		U	4.8	x
N-Nitrosodi-N-Propylamine	621-64-7	ug/l		U	4.8		U	4.8	x
N-Nitrosodiphenylamine	86-30-6	ug/l		U	4.8		U	4.8	x
Pentachlorophenol	87-86-5	ug/l		U	9.6		U	9.6	x
Phenanthrene	85-01-8	ug/l	22		4.8	21		4.8	4.65%
Phenol	108-95-2	ug/l		U	9.6		U	9.6	x
Pyrene	129-00-0	ug/l		U	4.8		U	4.8	x
Parameters									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l							
Total Petroleum Hydrocarbons	TPH	mg/l							Summary
Number of non-detect pairs									**100** **410**
Number of calculated RPD pairs									**23** **69**
Maximum RPD									**9.5%** **108.6%**
Minimum RPD									**0.0%** **0.0%**
Number of calculated RPD pairs exceeding 50% RPD limit									**0** **4**

Table 4-2
Relative Percent Difference - Monitoring Well Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

Location:			MW-07I			MW-07I			RPD %	MW-17B			MW-17B			RPD %
Sample:			MW-07I-20221121			MW-07I-20221121-DUP				MW-17B-20221117			MW-17B-20221117-DUP			
Start Depth (ft):			40.2			0				91.5			0			
End Depth (ft):			50.2			0				110			0			
Sample Date:			11/21/2022			11/21/2022				11/17/2022			11/17/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Metals																
Aluminum	7429-90-5	ug/l								727		100	427		100	51.99%
Antimony	7440-36-0	ug/l									U	20		U	20	x
Arsenic	7440-38-2	ug/l									U	8		U	8	x
Barium	7440-39-3	ug/l								330		100	289		100	13.25%
Beryllium	7440-41-7	ug/l									U	3		U	3	x
Cadmium	7440-43-9	ug/l									U	3		U	3	x
Calcium	7440-70-2	ug/l								77800		500	68800		500	12.28%
Chromium, Total	7440-47-3	ug/l									U	5		U	5	x
Cobalt	7440-48-4	ug/l									U	20		U	20	x
Copper	7440-50-8	ug/l									U	10		U	10	x
Iron	7439-89-6	ug/l								2380		50	1570		50	41.01%
Lead	7439-92-1	ug/l									U	8		U	8	x
Magnesium	7439-95-4	ug/l								15400		500	13400		500	13.89%
Manganese	7439-96-5	ug/l								250		5	197		5	23.71%
Mercury	7439-97-6	ug/l									U	0.2		U	0.2	x
Nickel	7440-02-0	ug/l									U	20		U	20	x
Potassium	7440-09-7	ug/l								3270		500	4300		500	27.21%
Selenium	7782-49-2	ug/l									U	20		U	20	x
Silver	7440-22-4	ug/l									U	5		U	5	x
Sodium	7440-23-5	ug/l								69800		1000	64900		1000	7.28%
Thallium	7440-28-0	ug/l									U	20		U	20	x
Vanadium	7440-62-2	ug/l									U	20		U	20	x
Zinc	7440-66-6	ug/l									U	20		U	20	x
02_VOCs																
1,1,1-Trichloroethane	71-55-6	ug/l		U	0.5		U	0.5	x	31		10	34		10	9.23%
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,1,2-Trichloroethane	79-00-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,1-Dichloroethane	75-34-3	ug/l		U	0.5		U	0.5	x	25		10	28		10	11.32%
1,1-Dichloroethene	75-35-4	ug/l		U	0.5		U	0.5	x	13		0.5	14	J+	0.5	7.41%
1,2,3-Trichlorobenzene	87-61-6	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,2,3-Trichloropropane	96-18-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,2,4-Trichlorobenzene	120-82-1	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,2,4-Trimethylbenzene	95-63-6	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,2-Dibromoethane	106-93-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,2-Dichlorobenzene	95-50-1	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,2-Dichloroethane	107-06-2	ug/l		U	0.5		U	0.5	x	1.6		0.5	1.8		0.5	11.76%
1,2-Dichloropropane	78-87-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,3-Dichlorobenzene	541-73-1	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
1,4-Dichlorobenzene	106-46-7	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
2-Butanone	78-93-3	ug/l		U	5		U	5	x		U	5		U	5	x
2-Hexanone	591-78-6	ug/l		U	5		U	5	x		U	5		U	5	x
4-Methyl-2-Pentanone	108-10-1	ug/l		U	5		U	5	x		U	5		U	5	x
Acetone	67-64-1	ug/l		U	5		U	5	x		U	5		U	5	x
Benzene	71-43-2	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Bromochloromethane	74-97-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Bromodichloromethane	75-27-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Bromoform	75-25-2	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Bromomethane	74-83-9	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Carbon Disulfide	75-15-0	ug/l		U	0.5		U	0.5	x	0.67		0.5	0.51		0.5	27.12%
Carbon Tetrachloride	56-23-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Chlorobenzene	108-90-7	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Chloroethane	75-00-3	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Chloroform	67-66-3	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Chloromethane	74-87-3	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
cis-1,2-Dichloroethene	156-59-2	ug/l		U	0.5		U	0.5	x	150		10	160		10	6.45%
cis-1,3-Dichloropropene	10061-01-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Cyclohexane	110-82-7	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Dibromochloromethane	124-48-1	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Dichlorodifluoromethane	75-71-8	ug/l		U	0.5		U	0.5	x	0.11	J	0.5	0.12	J	0.5	8.70%
Ethylbenzene	100-41-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Isopropylbenzene	98-82-8	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
M, P Xylenes	179601-23-1	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Methyl Acetate	79-20-9	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Methyl tert-Butyl Ether	1634-04-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Methylcyclohexane	108-87-2	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x

Table 4-2
Relative Percent Difference - Monitoring Well Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

		Location:	**MW-07I**			**MW-07I**			**RPD %**	**MW-17B**			**MW-17B**			**RPD %**
		Sample:	**MW-07I-20221121**			**MW-07I-20221121-DUP**				**MW-17B-20221117**			**MW-17B-20221117-DUP**			
		Start Depth (ft):	**40.2**			**0**				**91.5**			**0**			
		End Depth (ft):	**50.2**			**0**				**110**			**0**			
		Sample Date:	**11/21/2022**			**11/21/2022**				**11/17/2022**			**11/17/2022**			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Methylene Chloride	75-09-2	ug/l		U	0.5		U	0.5	x		UJ	0.5		UJ	0.5	x
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Styrene	100-42-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Tetrachloroethene (PCE)	127-18-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Toluene	108-88-3	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
trans-1,2-Dichloroethene	156-60-5	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
trans-1,3-Dichloropropene	10061-02-6	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Trichloroethene (TCE)	79-01-6	ug/l		U	0.5		U	0.5	x	30		10	33		10	9.52%
Trichlorofluoromethane	75-69-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
Vinyl Chloride	75-01-4	ug/l		U	0.5		U	0.5	x		U	0.5		U	0.5	x
SVOCs																
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l		U	5		U	5	x		U	5		U	5	x
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l		U	2		U	2	x	9.6		2	9.8		2	2.06%
1-methylnaphthalene	90-12-0	ug/l		U	5		U	5	x		U	5		U	5	x
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l		U	5		U	5	x		U	5		U	5	x
2,4,5-Trichlorophenol	95-95-4	ug/l		U	5		U	5	x		U	5		U	5	x
2,4,6-Trichlorophenol	88-06-2	ug/l		U	5		U	5	x		U	5		U	5	x
2,4-Dichlorophenol	120-83-2	ug/l		U	5		U	5	x		U	5		U	5	x
2,4-Dimethylphenol	105-67-9	ug/l		U	5		U	5	x		U	5		U	5	x
2,4-Dinitrophenol	51-28-5	ug/l		U	10		U	10	x		U	10		U	10	x
2,4-Dinitrotoluene	121-14-2	ug/l		U	5		U	5	x		U	5		U	5	x
2,6-Dinitrotoluene	606-20-2	ug/l		U	5		U	5	x		U	5		U	5	x
2-Chloronaphthalene	91-58-7	ug/l		U	5		U	5	x		U	5		U	5	x
2-Chlorophenol	95-57-8	ug/l		U	5		U	5	x		U	5		U	5	x
2-Methylnaphthalene	91-57-6	ug/l		U	5		U	5	x		U	5		U	5	x
2-Methylphenol (O-Cresol)	95-48-7	ug/l		U	10		U	10	x		U	10		U	10	x
2-Nitroaniline	88-74-4	ug/l		U	5		U	5	x		U	5		U	5	x
2-Nitrophenol	88-75-5	ug/l		U	5		U	5	x		U	5		U	5	x
3,3'-Dichlorobenzidine	91-94-1	ug/l		U	10		U	10	x		U	10		U	10	x
3-Nitroaniline	99-09-2	ug/l		U	10		U	10	x		U	10		U	10	x
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l		U	10		U	10	x		U	10		U	10	x
4-Bromophenyl Phenyl Ether	101-55-3	ug/l		U	5		U	5	x		U	5		U	5	x
4-Chloro-3-Methylphenol	59-50-7	ug/l		U	5		U	5	x		U	5		U	5	x
4-Chloroaniline	106-47-8	ug/l		U	10		U	10	x		U	10		U	10	x
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l		U	5		U	5	x		U	5		U	5	x
4-Methylphenol (P-Cresol)	106-44-5	ug/l		U	10		U	10	x		U	10		U	10	x
4-Nitroaniline	100-01-6	ug/l		U	10		U	10	x		U	10		U	10	x
4-Nitrophenol	100-02-7	ug/l		U	10		U	10	x		U	10		U	10	x
Acenaphthene	83-32-9	ug/l		U	5		U	5	x		U	5		U	5	x
Acenaphthylene	208-96-8	ug/l		U	5		U	5	x		U	5		U	5	x
Acetophenone	98-86-2	ug/l		U	10		U	10	x		U	10		U	10	x
Anthracene	120-12-7	ug/l		U	5		U	5	x		U	5		U	5	x
Atrazine	1912-24-9	ug/l		U	10		U	10	x		U	10		U	10	x
Benzaldehyde	100-52-7	ug/l		U	10		U	10	x		U	10		U	10	x
Benzo(a)anthracene	56-55-3	ug/l		U	5		U	5	x		U	5		U	5	x
Benzo(a)pyrene	50-32-8	ug/l		U	5		U	5	x		U	5		U	5	x
Benzo(b)fluoranthene	205-99-2	ug/l		U	5		U	5	x		U	5		U	5	x
Benzo(g,h,i)perylene	191-24-2	ug/l		U	5		U	5	x		U	5		U	5	x
Benzo(k)fluoranthene	207-08-9	ug/l		U	5		U	5	x		U	5		U	5	x
Benzyl Butyl Phthalate	85-68-7	ug/l		U	5		U	5	x		U	5		U	5	x
Biphenyl (Diphenyl)	92-52-4	ug/l		U	5		U	5	x		U	5		U	5	x
bis(2-Chloroethoxy) Methane	111-91-1	ug/l		U	5		U	5	x		U	5		U	5	x
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l		U	10		U	10	x		U	10		U	10	x
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l		U	10		U	10	x		U	10		U	10	x
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l		U	5		U	5	x		U	5		U	5	x
Caprolactam	105-60-2	ug/l		U	10		U	10	x		U	10		U	10	x
Carbazole	86-74-8	ug/l		U	10		U	10	x		U	10		U	10	x
Chrysene	218-01-9	ug/l		U	5		U	5	x		U	5		U	5	x
Dibenz(a,h)anthracene	53-70-3	ug/l		U	5		U	5	x		U	5		U	5	x
Dibenzofuran	132-64-9	ug/l		U	5		U	5	x		U	5		U	5	x
Diethyl Phthalate	84-66-2	ug/l		U	5		U	5	x		U	5		U	5	x
Dimethyl Phthalate	131-11-3	ug/l		U	5		U	5	x		U	5		U	5	x
Di-N-Butyl Phthalate	84-74-2	ug/l		U	5		U	5	x		U	5		U	5	x
Di-N-Octylphthalate	117-84-0	ug/l		U	10		U	10	x		U	10		U	10	x
Fluoranthene	206-44-0	ug/l		U	5		U	5	x		U	5		U	5	x
Fluorene	86-73-7	ug/l		U	5		U	5	x		U	5		U	5	x
Hexachlorobenzene	118-74-1	ug/l		U	5		U	5	x		U	5		U	5	x
Hexachlorobutadiene	87-68-3	ug/l		U	5		U	5	x		U	5		U	5	x
Hexachlorocyclopentadiene	77-47-4	ug/l		U	10		U	10	x		U	10		U	10	x

Table 4-2
Relative Percent Difference - Monitoring Well Groundwater Samples
GCL Tie Treating Superfund Site
Sidney, New York

	Location:		**MW-07I**			**MW-07I**			**RPD %**	**MW-17B**			**MW-17B**			**RPD %**		
	Sample:		**MW-07I-20221121**			**MW-07I-20221121-DUP**				**MW-17B-20221117**			**MW-17B-20221117-DUP**					
	Start Depth (ft):		**40.2**			**0**				**91.5**			**0**					
	End Depth (ft):		**50.2**			**0**				**110**			**0**					
	Sample Date:		**11/21/2022**			**11/21/2022**				**11/17/2022**			**11/17/2022**					
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**			
Hexachloroethane	67-72-1	ug/l		U	5		U	5	x		U	5		U	5	x		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l		U	5		U	5	x		U	5		U	5	x		
Isophorone	78-59-1	ug/l		U	5		U	5	x		U	5		U	5	x		
Naphthalene	91-20-3	ug/l		U	5		U	5	x		U	5		U	5	x		
Nitrobenzene	98-95-3	ug/l		U	5		U	5	x		U	5		U	5	x		
N-Nitrosodi-N-Propylamine	621-64-7	ug/l		U	5		U	5	x		U	5		U	5	x		
N-Nitrosodiphenylamine	86-30-6	ug/l		U	5		U	5	x		U	5		U	5	x		
Pentachlorophenol	87-86-5	ug/l		U	10		U	10	x		U	10		U	10	x		
Phenanthrene	85-01-8	ug/l		U	5		U	5	x		U	5		U	5	x		
Phenol	108-95-2	ug/l		U	10		U	10	x		U	10		U	10	x		
Pyrene	129-00-0	ug/l		U	5		U	5	x		U	5		U	5	x		
Parameters																		
Alkalinity, Total (As Caco3)	ALK	mg/l								126	J	1	115	J	1	9.13%		
Hardness (As Caco3)	HARD	mg/l								258		3.3	227		3.3	12.78%		
Nitrogen, Nitrate (As N)	14797-55-8	mg/l								0.613		0.05	0.614		0.05	0.16%		
Nitrogen, Nitrite (as N)	14797-65-0	mg/l									U	0.05		U	0.05	x		
Sulfate (As So4)	14808-79-8	mg/l								13.2		1	13.2		1	0.00%	Summary	
Number of non-detect pairs									**123**							**130**	**253**	
Number of calculated RPD pairs									**0**							**21**	**21**	
Maximum RPD									**0.0%**							**52.0%**	**52.0%**	
Minimum RPD									**0.0%**							**0.0%**	**0.0%**	
Number of calculated RPD pairs exceeding 50% RPD limit									**0**							**1**	**1**	

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

Location:			**SB-BR-01**			**SB-BR-01**			**RPD %**	**SB-BR-03**			**SB-BR-03**			**RPD %**	**SB-BR-05**			**SB-BR-05**			**RPD %**
Sample:			**SB-BR-01-19-20**			**SB-BR-01-19-20-1**				**SB-BR-03-33-34**			**SB-BR-03-33-34-1**				**SB-BR-05-38-39**			**SB-BR-05-38-39-1**			
Start Depth (ft):			**19**			**19**				**33**			**33**				**38**			**38**			
End Depth (ft):			**20**			**20**				**34**			**34**				**39**			**39**			
Sample Date:			**10/18/2022**			**10/18/2022**				**10/3/2022**			**10/3/2022**				**12/15/2022**			**12/15/2022**			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
VOCs																							
1,1,1-Trichloroethane	71-55-6	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,1,2-Trichloroethane	79-00-5	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,1-Dichloroethane	75-34-3	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,1-Dichloroethene	75-35-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2,3-Trichlorobenzene	87-61-6	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2,3-Trichloropropane	96-18-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2,4-Trichlorobenzene	120-82-1	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2,4-Trimethylbenzene	95-63-6	ug/kg	21		5.4	17		5.8	21.05%	19000		7200	24000		7000	23.26%	260	J	540	2400		590	160.90%
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2-Dibromoethane	106-93-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2-Dichlorobenzene	95-50-1	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2-Dichloroethane	107-06-2	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,2-Dichloropropane	78-87-5	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg	14		5.4	11		5.8	24.00%	7400		7200	9500		7000	24.85%	140	J	540	1300		590	161.11%
1,3-Dichlorobenzene	541-73-1	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
1,4-Dichlorobenzene	106-46-7	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
2-Butanone	78-93-3	ug/kg	8	J	11	11	J	12	31.58%		U	14000		U	14000	x		U	1100		U	1200	x
2-Hexanone	591-78-6	ug/kg		U	11		U	12	x		U	14000		U	14000	x		U	1100		U	1200	x
4-Methyl-2-Pentanone	108-10-1	ug/kg		U	11		U	12	x		U	14000		U	14000	x		U	1100		U	1200	x
Acetone	67-64-1	ug/kg	34		11	36		12	5.71%		U	14000		U	14000	x		U	1100		U	1200	x
Benzene	71-43-2	ug/kg	1.6	J	5.4	1.5	J	5.8	6.45%		U	7200		U	7000	x		U	540		U	590	x
Bromochloromethane	74-97-5	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Bromodichloromethane	75-27-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Bromoform	75-25-2	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Bromomethane	74-83-9	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Carbon Disulfide	75-15-0	ug/kg	2.3	J	5.4	1.6	J	5.8	35.90%		U	7200		U	7000	x		U	540		U	590	x
Carbon Tetrachloride	56-23-5	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Chlorobenzene	108-90-7	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Chloroethane	75-00-3	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Chloroform	67-66-3	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Chloromethane	74-87-3	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
cis-1,2-Dichloroethene	156-59-2	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
cis-1,3-Dichloropropene	10061-01-5	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Cyclohexane	110-82-7	ug/kg	1.6	J	5.4		U	5.8			U	7200		U	7000	x		U	540		U	590	x
Dibromochloromethane	124-48-1	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Dichlorodifluoromethane	75-71-8	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Ethylbenzene	100-41-4	ug/kg	2	J	5.4	2.1	J	5.8	4.88%	3200	J	7200	3900	J	7000	19.72%		U	540		U	590	x
Isopropylbenzene	98-82-8	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
M, P Xylenes	179601-23-1	ug/kg	3.9	J	5.4	3.9	J	5.8	0.00%	14000		7200	18000		7000	25.00%		U	540		U	590	x
Methyl Acetate	79-20-9	ug/kg	4.7	J	5.4	3.5	J	5.8	29.27%		U	7200		U	7000	x		U	540		U	590	x
Methyl tert-Butyl Ether	1634-04-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Methylcyclohexane	108-87-2	ug/kg	2.7	J	5.4		U	5.8			U	7200		U	7000	x		U	540		U	590	x
Methylene Chloride	75-09-2	ug/kg	3	J	5.4	3.6	J	5.8	18.18%		U	7200		U	7000	x		U	540		U	590	x
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg	3.4	J	5.4	2.9	J	5.8	15.87%	6000	J	7200	7100		7000	16.79%		U	540		U	590	x
Styrene	100-42-5	ug/kg		U	5.4		U	5.8	x	4100	J	7200	5200	J	7000	23.66%		U	540		U	590	x
Tetrachloroethene (PCE)	127-18-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Toluene	108-88-3	ug/kg	3.1	J	5.4	2.1	J	5.8	38.46%	1600	J	7200	2100	J	7000	27.03%		U	540		U	590	x
trans-1,2-Dichloroethene	156-60-5	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
trans-1,3-Dichloropropene	10061-02-6	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Trichloroethene (TCE)	79-01-6	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

Location:			SB-BR-01			SB-BR-01			RPD %	SB-BR-03			SB-BR-03			RPD %	SB-BR-05			SB-BR-05			RPD %
Sample:			SB-BR-01-19-20			SB-BR-01-19-20-1				SB-BR-03-33-34			SB-BR-03-33-34-1				SB-BR-05-38-39			SB-BR-05-38-39-1			
Start Depth (ft):			19			19				33			33				38			38			
End Depth (ft):			20			20				34			34				39			39			
Sample Date:			10/18/2022			10/18/2022				10/3/2022			10/3/2022				12/15/2022			12/15/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Trichlorofluoromethane	75-69-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
Vinyl Chloride	75-01-4	ug/kg		U	5.4		U	5.8	x		U	7200		U	7000	x		U	540		U	590	x
SVOCs																							
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
1,4-Dioxane (P-Dioxane)	123-91-1	ug/kg		U	710		U	300	x		U	110000		U	110000	x		U	11000		U	10000	x
1-methylnaphthalene	90-12-0	ug/kg	1800		1800	650	J	770	93.88%	640000		270000	690000		280000	7.52%		U	26000		U	25000	x
2,3,4,6-Tetrachlorophenol	58-90-2	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2,4,5-Trichlorophenol	95-95-4	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2,4,6-Trichlorophenol	88-06-2	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2,4-Dichlorophenol	120-83-2	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2,4-Dimethylphenol	105-67-9	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2,4-Dinitrophenol	51-28-5	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
2,4-Dinitrotoluene	121-14-2	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2,6-Dinitrotoluene	606-20-2	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2-Chloronaphthalene	91-58-7	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2-Chlorophenol	95-57-8	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2-Methylnaphthalene	91-57-6	ug/kg	4500		1800	1100		770	121.43%	1E+06		270000	1E+06		280000	7.41%		U	26000	43000		25000	x
2-Methylphenol (O-Cresol)	95-48-7	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
2-Nitroaniline	88-74-4	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
2-Nitrophenol	88-75-5	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
3,3'-Dichlorobenzidine	91-94-1	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
3-Nitroaniline	99-09-2	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
4,6-Dinitro-2-Methylphenol	534-52-1	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
4-Bromophenyl Phenyl Ether	101-55-3	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
4-Chloro-3-Methylphenol	59-50-7	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
4-Chloroaniline	106-47-8	ug/kg	1500	J	3500		U	1500			U	520000		U	540000	x		U	53000		U	51000	x
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
4-Methylphenol (P-Cresol)	106-44-5	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
4-Nitroaniline	100-01-6	ug/kg	1300	J	3500	250	J	1500	135.48%		U	520000		U	540000	x		U	53000		U	51000	x
4-Nitrophenol	100-02-7	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Acenaphthene	83-32-9	ug/kg	7900		1800	3200		770	84.68%	880000		270000	930000		280000	5.52%	47000		26000	51000		25000	8.16%
Acenaphthylene	208-96-8	ug/kg	690	J	1800		U	770		150000	J	270000	160000	J	280000	6.45%	5500	J	26000	5400	J	25000	1.83%
Acetophenone	98-86-2	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Anthracene	120-12-7	ug/kg	150000		18000	9300		770	176.65%	230000	J	270000	240000	J	280000	4.26%	45000		26000	41000		25000	9.30%
Atrazine	1912-24-9	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Benzaldehyde	100-52-7	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Benzo(a)anthracene	56-55-3	ug/kg	16000		1800	4000		770	120.00%	350000		270000	370000		280000	5.56%	23000	J	26000	19000	J	25000	19.05%
Benzo(a)pyrene	50-32-8	ug/kg	8900		1800	2700		770	106.90%	130000	J	270000	140000	J	280000	7.41%	9400	J	26000	7100	J	25000	27.88%
Benzo(b)fluoranthene	205-99-2	ug/kg	14000		1800	5000		770	94.74%	190000	J	270000	210000	J	280000	10.00%	13000	J	26000	11000	J	25000	16.67%
Benzo(g,h,i)perylene	191-24-2	ug/kg	2000		1800	830		770	82.69%		U	270000		U	280000	x	2800	J	26000	1900	J	25000	38.30%
Benzo(k)fluoranthene	207-08-9	ug/kg	4400		1800	1500		770	98.31%		U	270000		U	280000	x	6300	J	26000	3700	J	25000	52.00%
Benzyl Butyl Phthalate	85-68-7	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Biphenyl (Diphenyl)	92-52-4	ug/kg	920	J	1800		U	770		220000	J	270000	240000	J	280000	8.70%	12000	J	26000	13000	J	25000	8.00%
bis(2-Chloroethoxy) Methane	111-91-1	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
bis(2-Chloroisopropyl) Ether	108-60-1	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Caprolactam	105-60-2	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Carbazole	86-74-8	ug/kg	27000		3500	2300		1500	168.60%	150000	J	520000	160000	J	540000	6.45%	23000	J	53000	27000	J	51000	16.00%
Chrysene	218-01-9	ug/kg	19000		1800	5200		770	114.05%	240000	J	270000	260000	J	280000	8.00%	21000	J	26000	16000	J	25000	27.03%
Dibenz(a,h)anthracene	53-70-3	ug/kg	1000	J	1800	400	J	770	85.71%		U	270000		U	280000	x		U	26000		U	25000	x
Dibenzofuran	132-64-9	ug/kg	7800		1800	2500		770	102.91%	890000		270000	950000		280000	6.52%	55000		26000	54000		25000	1.83%
Diethyl Phthalate	84-66-2	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

		Location:	SB-BR-01			SB-BR-01			RPD %	SB-BR-03			SB-BR-03			RPD %	SB-BR-05			SB-BR-05			RPD %
		Sample:	SB-BR-01-19-20			SB-BR-01-19-20-1				SB-BR-03-33-34			SB-BR-03-33-34-1				SB-BR-05-38-39			SB-BR-05-38-39-1			
		Start Depth (ft):	19			19				33			33				38			38			
		End Depth (ft):	20			20				34			34				39			39			
		Sample Date:	10/18/2022			10/18/2022				10/3/2022			10/3/2022				12/15/2022			12/15/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Dimethyl Phthalate	131-11-3	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Di-N-Butyl Phthalate	84-74-2	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Di-N-Octylphthalate	117-84-0	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Fluoranthene	206-44-0	ug/kg	65000		18000	17000		1500	117.07%	2E+06		270000	2E+06		280000	11.76%	110000		26000	100000		25000	9.52%
Fluorene	86-73-7	ug/kg	23000		1800	4500		770	134.55%	1E+06		270000	1E+06		280000	9.52%	66000		26000	65000		25000	1.53%
Hexachlorobenzene	118-74-1	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Hexachlorobutadiene	87-68-3	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Hexachlorocyclopentadiene	77-47-4	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Hexachloroethane	67-72-1	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg	3100		1800	1200		770	88.37%		U	270000		U	280000	x	3500	J	26000	2500	J	25000	33.33%
Isophorone	78-59-1	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Naphthalene	91-20-3	ug/kg	5100		1800	1700		770	100.00%		R	270000		R	280000			U	26000	46000		25000	x
Nitrobenzene	98-95-3	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
N-Nitrosodiphenylamine	86-30-6	ug/kg		U	1800		U	770	x		U	270000		U	280000	x		U	26000		U	25000	x
Pentachlorophenol	87-86-5	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Phenanthrene	85-01-8	ug/kg	59000		18000	17000		1500	110.53%	3E+06		270000	3E+06		280000	6.45%	210000		26000	200000		25000	4.88%
Phenol	108-95-2	ug/kg		U	3500		U	1500	x		U	520000		U	540000	x		U	53000		U	51000	x
Pyrene	129-00-0	ug/kg	44000		18000	11000		770	120.00%	1E+06		270000	1E+06		280000	8.70%	69000		26000	65000		25000	5.97%
Parameters																							
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg	383		247					41600		271					6530		224				
Solids, Percent	SOLID	%	81		0.1					73.9		0.1					89.2		0.1				
TPH, HEM-SGT	TPHNONPOLAR	mg/kg		U	247					18100		271					2470		224				
Number of non-detect pairs									**86**							**99**							**104**
Number of calculated RPD pairs									**32**							**23**							**19**
Maximum RPD									**176.6%**							**27.0%**							**161.1%**
Minimum RPD									**0.0%**							**4.3%**							**1.5%**
Number of calculated RPD pairs exceeding 50% RPD limit									**20**							**0**							**3**

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

Location:			SB-BR-05			SB-BR-05			RPD %	SB-BR-07			SB-BR-07			RPD %	SB-BR-07			SB-BR-07			RPD %
Sample:			SB-BR-05-38-39-2			SB-BR-05-38-39-2-1				SB-BR-07-65-66			SB-BR-07-65-66-1				SB-BR-07-65-66-2			SB-BR-07-65-66-2-1			
Start Depth (ft):			38			38				65			65				65			65			
End Depth (ft):			39			39				66			66				66			66			
Sample Date:			12/15/2022			12/15/2022				1/6/2023			1/6/2023				1/6/2023			1/6/2023			
Analyte	CAS	Unit	Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL	
VOCs																							
1,1,1-Trichloroethane	71-55-6	ug/kg	2.6	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,1,2-Trichloroethane	79-00-5	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,1-Dichloroethane	75-34-3	ug/kg	1.3	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,1-Dichloroethene	75-35-4	ug/kg	0.89	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5	0.76	J	4.6	x
1,2,3-Trichlorobenzene	87-61-6	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		UJ	4.6	x
1,2,3-Trichloropropane	96-18-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,2,4-Trichlorobenzene	120-82-1	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		UJ	4.6	x
1,2,4-Trimethylbenzene	95-63-6	ug/kg	46		5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg	14		5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,2-Dibromoethane	106-93-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,2-Dichlorobenzene	95-50-1	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		UJ	4.6	x
1,2-Dichloroethane	107-06-2	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,2-Dichloropropane	78-87-5	ug/kg	5.9		5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg	25		5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
1,3-Dichlorobenzene	541-73-1	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		UJ	4.6	x
1,4-Dichlorobenzene	106-46-7	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		UJ	4.6	x
2-Butanone	78-93-3	ug/kg		U	10		U	620	x		U	11		U	9.3	x		U	8.9		U	9.1	x
2-Hexanone	591-78-6	ug/kg	4.2	J	10		U	620			U	11		U	9.3	x		U	8.9		U	9.1	x
4-Methyl-2-Pentanone	108-10-1	ug/kg		U	10		U	620	x		U	11		U	9.3	x		U	8.9		U	9.1	x
Acetone	67-64-1	ug/kg		U	10		U	620	x		U	11		U	9.3	x		U	8.9		U	9.1	x
Benzene	71-43-2	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Bromochloromethane	74-97-5	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Bromodichloromethane	75-27-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Bromoform	75-25-2	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Bromomethane	74-83-9	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Carbon Disulfide	75-15-0	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Carbon Tetrachloride	56-23-5	ug/kg	8.5		5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
Chlorobenzene	108-90-7	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		UJ	4.6	x
Chloroethane	75-00-3	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Chloroform	67-66-3	ug/kg	1.8	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
Chloromethane	74-87-3	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
cis-1,2-Dichloroethene	156-59-2	ug/kg	6.3		5.1		U	310		6		5.7	4.8		4.7	22.22%	8.7		4.5	6		4.6	36.73%
cis-1,3-Dichloropropene	10061-01-5	ug/kg	2.7	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
Cyclohexane	110-82-7	ug/kg	1.3	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
Dibromochloromethane	124-48-1	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Dichlorodifluoromethane	75-71-8	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Ethylbenzene	100-41-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Isopropylbenzene	98-82-8	ug/kg	2.6	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
M, P Xylenes	179601-23-1	ug/kg	6.3		5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
Methyl Acetate	79-20-9	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Methyl tert-Butyl Ether	1634-04-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Methylcyclohexane	108-87-2	ug/kg	8.2		5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
Methylene Chloride	75-09-2	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Styrene	100-42-5	ug/kg	1.1	J	5.1		U	310			U	5.7		U	4.7	x		U	4.5		U	4.6	x
Tetrachloroethene (PCE)	127-18-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Toluene	108-88-3	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
trans-1,2-Dichloroethene	156-60-5	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
trans-1,3-Dichloropropene	10061-02-6	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Trichloroethene (TCE)	79-01-6	ug/kg	17		5.1		U	310		3.2	J	5.7	3	J	4.7	6.45%	5.3		4.5	3	J	4.6	55.42%

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

Location:			SB-BR-05			SB-BR-05			RPD %	SB-BR-07			SB-BR-07			RPD %	SB-BR-07			SB-BR-07			RPD %
Sample:			SB-BR-05-38-39-2			SB-BR-05-38-39-2-1				SB-BR-07-65-66			SB-BR-07-65-66-1				SB-BR-07-65-66-2			SB-BR-07-65-66-2-1			
Start Depth (ft):			38			38				65			65				65			65			
End Depth (ft):			39			39				66			66				66			66			
Sample Date:			12/15/2022			12/15/2022				1/6/2023			1/6/2023				1/6/2023			1/6/2023			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Trichlorofluoromethane	75-69-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
Vinyl Chloride	75-01-4	ug/kg		U	5.1		U	310	x		U	5.7		U	4.7	x		U	4.5		U	4.6	x
SVOCs																							
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/kg									U	200		U	200	x							
1,4-Dioxane (P-Dioxane)	123-91-1	ug/kg									U	79		U	78	x							
1-methylnaphthalene	90-12-0	ug/kg									U	200		U	200	x							
2,3,4,6-Tetrachlorophenol	58-90-2	ug/kg									U	200		U	200	x							
2,4,5-Trichlorophenol	95-95-4	ug/kg									U	200		U	200	x							
2,4,6-Trichlorophenol	88-06-2	ug/kg									U	200		U	200	x							
2,4-Dichlorophenol	120-83-2	ug/kg									U	200		U	200	x							
2,4-Dimethylphenol	105-67-9	ug/kg									U	200		U	200	x							
2,4-Dinitrophenol	51-28-5	ug/kg									U	390		U	390	x							
2,4-Dinitrotoluene	121-14-2	ug/kg									U	200		U	200	x							
2,6-Dinitrotoluene	606-20-2	ug/kg									U	200		U	200	x							
2-Chloronaphthalene	91-58-7	ug/kg									U	200		U	200	x							
2-Chlorophenol	95-57-8	ug/kg									U	200		U	200	x							
2-Methylnaphthalene	91-57-6	ug/kg									U	200		U	200	x							
2-Methylphenol (O-Cresol)	95-48-7	ug/kg									U	390		U	390	x							
2-Nitroaniline	88-74-4	ug/kg									U	200		U	200	x							
2-Nitrophenol	88-75-5	ug/kg									U	200		U	200	x							
3,3'-Dichlorobenzidine	91-94-1	ug/kg									U	390		U	390	x							
3-Nitroaniline	99-09-2	ug/kg									U	390		U	390	x							
4,6-Dinitro-2-Methylphenol	534-52-1	ug/kg									U	390		U	390	x							
4-Bromophenyl Phenyl Ether	101-55-3	ug/kg									U	200		U	200	x							
4-Chloro-3-Methylphenol	59-50-7	ug/kg									U	200		U	200	x							
4-Chloroaniline	106-47-8	ug/kg									U	390		U	390	x							
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/kg									U	200		U	200	x							
4-Methylphenol (P-Cresol)	106-44-5	ug/kg									U	390		U	390	x							
4-Nitroaniline	100-01-6	ug/kg									U	390		U	390	x							
4-Nitrophenol	100-02-7	ug/kg									U	390		U	390	x							
Acenaphthene	83-32-9	ug/kg									U	200		U	200	x							
Acenaphthylene	208-96-8	ug/kg									U	200		U	200	x							
Acetophenone	98-86-2	ug/kg									U	390		U	390	x							
Anthracene	120-12-7	ug/kg									U	200		U	200	x							
Atrazine	1912-24-9	ug/kg									U	390		U	390	x							
Benzaldehyde	100-52-7	ug/kg									U	390		U	390	x							
Benzo(a)anthracene	56-55-3	ug/kg									U	200		U	200	x							
Benzo(a)pyrene	50-32-8	ug/kg									U	200		U	200	x							
Benzo(b)fluoranthene	205-99-2	ug/kg									U	200		U	200	x							
Benzo(g,h,i)perylene	191-24-2	ug/kg									U	200		U	200	x							
Benzo(k)fluoranthene	207-08-9	ug/kg									U	200		U	200	x							
Benzyl Butyl Phthalate	85-68-7	ug/kg									U	200		U	200	x							
Biphenyl (Diphenyl)	92-52-4	ug/kg									U	200		U	200	x							
bis(2-Chloroethoxy) Methane	111-91-1	ug/kg									U	200		U	200	x							
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/kg									U	390		U	390	x							
bis(2-Chloroisopropyl) Ether	108-60-1	ug/kg									U	390		U	390	x							
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg									U	200		U	200	x							
Caprolactam	105-60-2	ug/kg									U	390		U	390	x							
Carbazole	86-74-8	ug/kg									U	390		U	390	x							
Chrysene	218-01-9	ug/kg									U	200		U	200	x							
Dibenz(a,h)anthracene	53-70-3	ug/kg									U	200		U	200	x							
Dibenzofuran	132-64-9	ug/kg									U	200		U	200	x							
Diethyl Phthalate	84-66-2	ug/kg									U	200		U	200	x							

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

Location:			**SB-BR-05**						**RPD %**	**SB-BR-07**						**RPD %**	**SB-BR-07**						**RPD %**
Sample:			**SB-BR-05-38-39-2**			**SB-BR-05-38-39-2-1**				**SB-BR-07-65-66**			**SB-BR-07-65-66-1**				**SB-BR-07-65-66-2**			**SB-BR-07-65-66-2-1**			
Start Depth (ft):			**38**			**38**				**65**			**65**				**65**			**65**			
End Depth (ft):			**39**			**39**				**66**			**66**				**66**			**66**			
Sample Date:			**12/15/2022**			**12/15/2022**				**1/6/2023**			**1/6/2023**				**1/6/2023**			**1/6/2023**			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Dimethyl Phthalate	131-11-3	ug/kg									U	200		U	200	x							
Di-N-Butyl Phthalate	84-74-2	ug/kg									U	200		U	200	x							
Di-N-Octylphthalate	117-84-0	ug/kg									U	390		U	390	x							
Fluoranthene	206-44-0	ug/kg									U	200		U	200	x							
Fluorene	86-73-7	ug/kg									U	200		U	200	x							
Hexachlorobenzene	118-74-1	ug/kg									U	200		U	200	x							
Hexachlorobutadiene	87-68-3	ug/kg									U	200		U	200	x							
Hexachlorocyclopentadiene	77-47-4	ug/kg									U	390		U	390	x							
Hexachloroethane	67-72-1	ug/kg									U	200		U	200	x							
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg									U	200		U	200	x							
Isophorone	78-59-1	ug/kg									U	200		U	200	x							
Naphthalene	91-20-3	ug/kg									U	200		U	200	x							
Nitrobenzene	98-95-3	ug/kg									U	200		U	200	x							
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg									U	200		U	200	x							
N-Nitrosodiphenylamine	86-30-6	ug/kg									U	200		U	200	x							
Pentachlorophenol	87-86-5	ug/kg									U	390		U	390	x							
Phenanthrene	85-01-8	ug/kg									U	200		U	200	x							
Phenol	108-95-2	ug/kg									U	390		U	390	x							
Pyrene	129-00-0	ug/kg									U	200		U	200	x							
Parameters																							
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																					
Solids, Percent	SOLID	%																					
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																					
Number of non-detect pairs									**36**							**121**							**52**
Number of calculated RPD pairs									**0**							**2**							**2**
Maximum RPD									**0.0%**							**22.2%**							**55.4%**
Minimum RPD									**0.0%**							**6.5%**							**36.7%**
Number of calculated RPD pairs exceeding 50% RPD limit									**0**							**0**							**1**

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

Location:			SB-BR-10			SB-BR-10			RPD %	SB-BR-11			SB-BR-11			RPD %	SB-BR-11			SB-BR-11			RPD %
Sample:			SB-BR-10-37-38			SB-BR-10-37-38-1				SB-BR-11-43-44			SB-BR-11-43-44-1				SB-BR-11-43-44-2			SB-BR-11-43-44-2-1			
Start Depth (ft):			37			37				43			43				43			43			
End Depth (ft):			38			38				44			44				44			44			
Sample Date:			11/4/2022			11/4/2022				12/6/2022			12/6/2022				12/6/2022			12/6/2022			
Analyte	CAS	Unit	Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL	
VOCs																							
1,1,1-Trichloroethane	71-55-6	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,1,2-Trichloroethane	79-00-5	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,1-Dichloroethane	75-34-3	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,1-Dichloroethene	75-35-4	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2,3-Trichlorobenzene	87-61-6	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2,3-Trichloropropane	96-18-4	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2,4-Trichlorobenzene	120-82-1	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2,4-Trimethylbenzene	95-63-6	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2-Dibromoethane	106-93-4	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2-Dichlorobenzene	95-50-1	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2-Dichloroethane	107-06-2	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,2-Dichloropropane	78-87-5	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,3-Dichlorobenzene	541-73-1	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
1,4-Dichlorobenzene	106-46-7	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
2-Butanone	78-93-3	ug/kg		U	670		U	12	x		U	11		U	12	x		U	11		U	13	x
2-Hexanone	591-78-6	ug/kg		U	670		U	12	x		U	11		U	12	x		U	11		U	13	x
4-Methyl-2-Pentanone	108-10-1	ug/kg		U	670		U	12	x		U	11		U	12	x		U	11		U	13	x
Acetone	67-64-1	ug/kg		U	670		U	12	x		U	11		U	12	x		U	11		U	13	x
Benzene	71-43-2	ug/kg		U	330	5.9		5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Bromochloromethane	74-97-5	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Bromodichloromethane	75-27-4	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Bromoform	75-25-2	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Bromomethane	74-83-9	ug/kg		R	330		U	5.9			U	5.5		U	6	x		U	5.3		U	6.4	x
Carbon Disulfide	75-15-0	ug/kg		R	330		U	5.9			U	5.5		U	6	x		U	5.3		U	6.4	x
Carbon Tetrachloride	56-23-5	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Chlorobenzene	108-90-7	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Chloroethane	75-00-3	ug/kg		R	330		U	5.9			U	5.5		U	6	x		U	5.3		U	6.4	x
Chloroform	67-66-3	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Chloromethane	74-87-3	ug/kg		R	330		U	5.9			U	5.5		U	6	x		U	5.3		U	6.4	x
cis-1,2-Dichloroethene	156-59-2	ug/kg		U	330	15		5.9	x		U	5.5		U	6	x		U	5.3	2	J	6.4	x
cis-1,3-Dichloropropene	10061-01-5	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Cyclohexane	110-82-7	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Dibromochloromethane	124-48-1	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Dichlorodifluoromethane	75-71-8	ug/kg		R	330		U	5.9			U	5.5		U	6	x		U	5.3		U	6.4	x
Ethylbenzene	100-41-4	ug/kg		U	330	6		5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Isopropylbenzene	98-82-8	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
M, P Xylenes	179601-23-1	ug/kg		U	330	5.3	J	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Methyl Acetate	79-20-9	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Methyl tert-Butyl Ether	1634-04-4	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Methylcyclohexane	108-87-2	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Methylene Chloride	75-09-2	ug/kg		U	330	7.1		5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Styrene	100-42-5	ug/kg		U	330	2.5	J	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Tetrachloroethene (PCE)	127-18-4	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Toluene	108-88-3	ug/kg		U	330	5	J	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
trans-1,2-Dichloroethene	156-60-5	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
trans-1,3-Dichloropropene	10061-02-6	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Trichloroethene (TCE)	79-01-6	ug/kg		U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

			Location:	SB-BR-10			SB-BR-10			RPD %	SB-BR-11			SB-BR-11			RPD %	SB-BR-11			SB-BR-11			RPD %
			Sample:	SB-BR-10-37-38			SB-BR-10-37-38-1				SB-BR-11-43-44			SB-BR-11-43-44-1				SB-BR-11-43-44-2			SB-BR-11-43-44-2-1			
			Start Depth (ft):	37			37				43			43				43			43			
			End Depth (ft):	38			38				44			44				44			44			
			Sample Date:	11/4/2022			11/4/2022				12/6/2022			12/6/2022				12/6/2022			12/6/2022			
Analyte	CAS	Unit		Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL		Result	Qual	RDL	Result	Qual	RDL	
Trichlorofluoromethane	75-69-4	ug/kg			U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
Vinyl Chloride	75-01-4	ug/kg			U	330		U	5.9	x		U	5.5		U	6	x		U	5.3		U	6.4	x
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/kg			U	210		U	210	x		U	190		U	190	x							
1,4-Dioxane (P-Dioxane)	123-91-1	ug/kg			U	82		U	83	x		U	75		U	75	x							
1-methylnaphthalene	90-12-0	ug/kg			U	210		U	210	x		U	190		U	190	x							
2,3,4,6-Tetrachlorophenol	58-90-2	ug/kg			U	210		U	210	x		U	190		U	190	x							
2,4,5-Trichlorophenol	95-95-4	ug/kg			U	210		U	210	x		U	190		U	190	x							
2,4,6-Trichlorophenol	88-06-2	ug/kg			U	210		U	210	x		U	190		U	190	x							
2,4-Dichlorophenol	120-83-2	ug/kg			U	210		U	210	x		U	190		U	190	x							
2,4-Dimethylphenol	105-67-9	ug/kg			U	210		U	210	x		U	190		U	190	x							
2,4-Dinitrophenol	51-28-5	ug/kg			U	400		U	410	x		U	370		U	370	x							
2,4-Dinitrotoluene	121-14-2	ug/kg			U	210		U	210	x		U	190		U	190	x							
2,6-Dinitrotoluene	606-20-2	ug/kg			U	210		U	210	x		U	190		U	190	x							
2-Chloronaphthalene	91-58-7	ug/kg			U	210		U	210	x		U	190		U	190	x							
2-Chlorophenol	95-57-8	ug/kg			U	210		U	210	x		U	190		U	190	x							
2-Methylnaphthalene	91-57-6	ug/kg			U	210		U	210	x		U	190		U	190	x							
2-Methylphenol (O-Cresol)	95-48-7	ug/kg			U	400		U	410	x		U	370		U	370	x							
2-Nitroaniline	88-74-4	ug/kg			U	210		U	210	x		U	190		U	190	x							
2-Nitrophenol	88-75-5	ug/kg			U	210		U	210	x		U	190		U	190	x							
3,3'-Dichlorobenzidine	91-94-1	ug/kg			U	400		U	410	x		U	370		U	370	x							
3-Nitroaniline	99-09-2	ug/kg			U	400		U	410	x		U	370		U	370	x							
4,6-Dinitro-2-Methylphenol	534-52-1	ug/kg			U	400		U	410	x		U	370		U	370	x							
4-Bromophenyl Phenyl Ether	101-55-3	ug/kg			U	210		U	210	x		U	190		U	190	x							
4-Chloro-3-Methylphenol	59-50-7	ug/kg			U	210		U	210	x		U	190		U	190	x							
4-Chloroaniline	106-47-8	ug/kg			U	400		U	410	x		U	370		U	370	x							
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/kg			U	210		U	210	x		U	190		U	190	x							
4-Methylphenol (P-Cresol)	106-44-5	ug/kg			U	400		U	410	x		U	370		U	370	x							
4-Nitroaniline	100-01-6	ug/kg			U	400		U	410	x		U	370		U	370	x							
4-Nitrophenol	100-02-7	ug/kg			U	400		U	410	x		U	370		U	370	x							
Acenaphthene	83-32-9	ug/kg			U	210		U	210	x		U	190		U	190	x							
Acenaphthylene	208-96-8	ug/kg			U	210		U	210	x		U	190		U	190	x							
Acetophenone	98-86-2	ug/kg			U	400		U	410	x		U	370		U	370	x							
Anthracene	120-12-7	ug/kg			U	210		U	210	x		U	190		U	190	x							
Atrazine	1912-24-9	ug/kg			U	400		U	410	x		U	370		U	370	x							
Benzaldehyde	100-52-7	ug/kg			U	400		U	410	x		U	370		U	370	x							
Benzo(a)anthracene	56-55-3	ug/kg			U	210		U	210	x		U	190		U	190	x							
Benzo(a)pyrene	50-32-8	ug/kg			U	210		U	210	x		U	190		U	190	x							
Benzo(b)fluoranthene	205-99-2	ug/kg			U	210		U	210	x		U	190		U	190	x							
Benzo(g,h,i)perylene	191-24-2	ug/kg			U	210		U	210	x		U	190		U	190	x							
Benzo(k)fluoranthene	207-08-9	ug/kg			U	210		U	210	x		U	190		U	190	x							
Benzyl Butyl Phthalate	85-68-7	ug/kg			U	210		U	210	x		U	190		U	190	x							
Biphenyl (Diphenyl)	92-52-4	ug/kg			U	210		U	210	x		U	190		U	190	x							
bis(2-Chloroethoxy) Methane	111-91-1	ug/kg			U	210		U	210	x		U	190		U	190	x							
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/kg			U	400		U	410	x		U	370		U	370	x							
bis(2-Chloroisopropyl) Ether	108-60-1	ug/kg			U	400		U	410	x		U	370		U	370	x							
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg			U	210		U	210	x		U	190		U	190	x							
Caprolactam	105-60-2	ug/kg			U	400		U	410	x		U	370		U	370	x							
Carbazole	86-74-8	ug/kg		92	J	400	87	J	410	5.59%		U	370		U	370	x							
Chrysene	218-01-9	ug/kg			U	210		U	210	x		U	190		U	190	x							
Dibenz(a,h)anthracene	53-70-3	ug/kg			U	210		U	210	x		U	190		U	190	x							
Dibenzofuran	132-64-9	ug/kg		160	J	210	120	J	210	28.57%		U	190		U	190	x							
Diethyl Phthalate	84-66-2	ug/kg			U	210		U	210	x		U	190		U	190	x							

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

Location:			SB-BR-10			SB-BR-10			RPD %	SB-BR-11			SB-BR-11			RPD %	SB-BR-11			SB-BR-11			RPD %
Sample:			SB-BR-10-37-38			SB-BR-10-37-38-1				SB-BR-11-43-44			SB-BR-11-43-44-1				SB-BR-11-43-44-2			SB-BR-11-43-44-2-1			
Start Depth (ft):			37			37				43			43				43			43			
End Depth (ft):			38			38				44			44				44			44			
Sample Date:			11/4/2022			11/4/2022				12/6/2022			12/6/2022				12/6/2022			12/6/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Dimethyl Phthalate	131-11-3	ug/kg		U	210		U	210	x		U	190		U	190	x							
Di-N-Butyl Phthalate	84-74-2	ug/kg		U	210		U	210	x		U	190		U	190	x							
Di-N-Octylphthalate	117-84-0	ug/kg		U	400		U	410	x		U	370		U	370	x							
Fluoranthene	206-44-0	ug/kg		U	210		U	210	x		U	190		U	190	x							
Fluorene	86-73-7	ug/kg	74	J	210	73	J	210	1.36%		U	190		U	190	x							
Hexachlorobenzene	118-74-1	ug/kg		U	210		U	210	x		U	190		U	190	x							
Hexachlorobutadiene	87-68-3	ug/kg		U	210		U	210	x		U	190		U	190	x							
Hexachlorocyclopentadiene	77-47-4	ug/kg		U	400		U	410	x		U	370		U	370	x							
Hexachloroethane	67-72-1	ug/kg		U	210		U	210	x		U	190		U	190	x							
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg		U	210		U	210	x		U	190		U	190	x							
Isophorone	78-59-1	ug/kg		U	210		U	210	x		U	190		U	190	x							
Naphthalene	91-20-3	ug/kg	130	J	210	120	J	210	8.00%		U	190		U	190	x							
Nitrobenzene	98-95-3	ug/kg		U	210		U	210	x		U	190		U	190	x							
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg	170	J	210	120	J	210	34.48%		U	190		U	190	x							
N-Nitrosodiphenylamine	86-30-6	ug/kg		U	210		U	210	x		U	190		U	190	x							
Pentachlorophenol	87-86-5	ug/kg		U	400		U	410	x		U	370		U	370	x							
Phenanthrene	85-01-8	ug/kg		U	210		U	210	x		U	190		U	190	x							
Phenol	108-95-2	ug/kg		U	400		U	410	x		U	370		U	370	x							
Pyrene	129-00-0	ug/kg		U	210		U	210	x		U	190		U	190	x							
Parameters																							
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg		U	267						U	252											
Solids, Percent	SOLID	%	74.9		0.1					79.4		0.1											
TPH, HEM-SGT	TPHNONPOLAR	mg/kg		U	267						U	252											
Number of non-detect pairs									**113**							**123**							**54**
Number of calculated RPD pairs									**5**							**0**							**0**
Maximum RPD									**34.5%**							**0.0%**							**0.0%**
Minimum RPD									**1.4%**							**0.0%**							**0.0%**
Number of calculated RPD pairs exceeding 50% RPD limit									**0**							**0**							**0**

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

	Location:		SB-BR-LIF16			SB-BR-LIF16			RPD %
	Sample:		SB-BR-LIF16-25-26			SB-BR-LIF16-25-26-1			
	Start Depth (ft):		25			25			
	End Depth (ft):		26			26			
	Sample Date:		9/12/2022			9/12/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
VOCs									
1,1,1-Trichloroethane	71-55-6	ug/kg		U	5.6		U	5.7	x
1,1,2,2-Tetrachloroethane	79-34-5	ug/kg		U	5.6		U	5.7	x
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/kg		U	5.6		U	5.7	x
1,1,2-Trichloroethane	79-00-5	ug/kg		U	5.6		U	5.7	x
1,1-Dichloroethane	75-34-3	ug/kg		U	5.6		U	5.7	x
1,1-Dichloroethene	75-35-4	ug/kg		U	5.6		U	5.7	x
1,2,3-Trichlorobenzene	87-61-6	ug/kg		U	5.6		U	5.7	x
1,2,3-Trichloropropane	96-18-4	ug/kg		U	5.6		U	5.7	x
1,2,4-Trichlorobenzene	120-82-1	ug/kg		U	5.6		U	5.7	x
1,2,4-Trimethylbenzene	95-63-6	ug/kg		U	5.6		U	5.7	x
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg		U	5.6		U	5.7	x
1,2-Dibromoethane	106-93-4	ug/kg		U	5.6		U	5.7	x
1,2-Dichlorobenzene	95-50-1	ug/kg		U	5.6		U	5.7	x
1,2-Dichloroethane	107-06-2	ug/kg		U	5.6		U	5.7	x
1,2-Dichloropropane	78-87-5	ug/kg		U	5.6		U	5.7	x
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg		U	5.6		U	5.7	x
1,3-Dichlorobenzene	541-73-1	ug/kg		U	5.6		U	5.7	x
1,4-Dichlorobenzene	106-46-7	ug/kg		U	5.6		U	5.7	x
2-Butanone	78-93-3	ug/kg		U	11		U	11	x
2-Hexanone	591-78-6	ug/kg		U	11		U	11	x
4-Methyl-2-Pentanone	108-10-1	ug/kg		U	11		U	11	x
Acetone	67-64-1	ug/kg		U	11		U	11	x
Benzene	71-43-2	ug/kg		U	5.6		U	5.7	x
Bromochloromethane	74-97-5	ug/kg		U	5.6		U	5.7	x
Bromodichloromethane	75-27-4	ug/kg		U	5.6		U	5.7	x
Bromoform	75-25-2	ug/kg		U	5.6		U	5.7	x
Bromomethane	74-83-9	ug/kg		U	5.6		U	5.7	x
Carbon Disulfide	75-15-0	ug/kg		U	5.6		U	5.7	x
Carbon Tetrachloride	56-23-5	ug/kg		U	5.6		U	5.7	x
Chlorobenzene	108-90-7	ug/kg		U	5.6		U	5.7	x
Chloroethane	75-00-3	ug/kg		U	5.6		U	5.7	x
Chloroform	67-66-3	ug/kg		U	5.6		U	5.7	x
Chloromethane	74-87-3	ug/kg		U	5.6		U	5.7	x
cis-1,2-Dichloroethene	156-59-2	ug/kg	3.7	J	5.6	2.6	J	5.7	34.92%
cis-1,3-Dichloropropene	10061-01-5	ug/kg		U	5.6		U	5.7	x
Cyclohexane	110-82-7	ug/kg		U	5.6		U	5.7	x
Dibromochloromethane	124-48-1	ug/kg		U	5.6		U	5.7	x
Dichlorodifluoromethane	75-71-8	ug/kg		U	5.6		U	5.7	x
Ethylbenzene	100-41-4	ug/kg		U	5.6		U	5.7	x
Isopropylbenzene	98-82-8	ug/kg		U	5.6		U	5.7	x
M, P Xylenes	179601-23-1	ug/kg		U	5.6		U	5.7	x
Methyl Acetate	79-20-9	ug/kg		U	5.6		U	5.7	x
Methyl tert-Butyl Ether	1634-04-4	ug/kg		U	5.6		U	5.7	x
Methylcyclohexane	108-87-2	ug/kg		U	5.6		U	5.7	x
Methylene Chloride	75-09-2	ug/kg		U	5.6		U	5.7	x
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg		U	5.6		U	5.7	x
Styrene	100-42-5	ug/kg		U	5.6		U	5.7	x
Tetrachloroethene (PCE)	127-18-4	ug/kg		U	5.6		U	5.7	x
Toluene	108-88-3	ug/kg		U	5.6		U	5.7	x
trans-1,2-Dichloroethene	156-60-5	ug/kg		U	5.6		U	5.7	x
trans-1,3-Dichloropropene	10061-02-6	ug/kg		U	5.6		U	5.7	x
Trichloroethene (TCE)	79-01-6	ug/kg		U	5.6		U	5.7	x

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

		Location:	SB-BR-LIF16			SB-BR-LIF16			RPD %
		Sample:	SB-BR-LIF16-25-26			SB-BR-LIF16-25-26-1			
		Start Depth (ft):	25			25			
		End Depth (ft):	26			26			
		Sample Date:	9/12/2022			9/12/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**	
Trichlorofluoromethane	75-69-4	ug/kg		U	5.6		U	5.7	x
Vinyl Chloride	75-01-4	ug/kg		U	5.6		U	5.7	x
SVOCs									
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/kg		U	210		U	200	x
1,4-Dioxane (P-Dioxane)	123-91-1	ug/kg		U	81		U	81	x
1-methylnaphthalene	90-12-0	ug/kg		U	210		U	200	x
2,3,4,6-Tetrachlorophenol	58-90-2	ug/kg		U	210		U	200	x
2,4,5-Trichlorophenol	95-95-4	ug/kg		U	210		U	200	x
2,4,6-Trichlorophenol	88-06-2	ug/kg		U	210		U	200	x
2,4-Dichlorophenol	120-83-2	ug/kg		U	210		U	200	x
2,4-Dimethylphenol	105-67-9	ug/kg		U	210		U	200	x
2,4-Dinitrophenol	51-28-5	ug/kg		U	400		U	400	x
2,4-Dinitrotoluene	121-14-2	ug/kg		U	210		U	200	x
2,6-Dinitrotoluene	606-20-2	ug/kg		U	210		U	200	x
2-Chloronaphthalene	91-58-7	ug/kg		U	210		U	200	x
2-Chlorophenol	95-57-8	ug/kg		U	210		U	200	x
2-Methylnaphthalene	91-57-6	ug/kg		U	210		U	200	x
2-Methylphenol (O-Cresol)	95-48-7	ug/kg		U	400		U	400	x
2-Nitroaniline	88-74-4	ug/kg		U	210		U	200	x
2-Nitrophenol	88-75-5	ug/kg		U	210		U	200	x
3,3'-Dichlorobenzidine	91-94-1	ug/kg		U	400		U	400	x
3-Nitroaniline	99-09-2	ug/kg		U	400		U	400	x
4,6-Dinitro-2-Methylphenol	534-52-1	ug/kg		U	400		U	400	x
4-Bromophenyl Phenyl Ether	101-55-3	ug/kg		U	210		U	200	x
4-Chloro-3-Methylphenol	59-50-7	ug/kg		U	210		U	200	x
4-Chloroaniline	106-47-8	ug/kg		U	400		U	400	x
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/kg		U	210		U	200	x
4-Methylphenol (P-Cresol)	106-44-5	ug/kg		U	400		U	400	x
4-Nitroaniline	100-01-6	ug/kg		U	400		U	400	x
4-Nitrophenol	100-02-7	ug/kg		U	400		U	400	x
Acenaphthene	83-32-9	ug/kg		U	210		U	200	x
Acenaphthylene	208-96-8	ug/kg		U	210		U	200	x
Acetophenone	98-86-2	ug/kg		U	400		U	400	x
Anthracene	120-12-7	ug/kg		U	210		U	200	x
Atrazine	1912-24-9	ug/kg		U	400		U	400	x
Benzaldehyde	100-52-7	ug/kg		U	400		U	400	x
Benzo(a)anthracene	56-55-3	ug/kg		U	210		U	200	x
Benzo(a)pyrene	50-32-8	ug/kg		U	210		U	200	x
Benzo(b)fluoranthene	205-99-2	ug/kg		U	210		U	200	x
Benzo(g,h,i)perylene	191-24-2	ug/kg		U	210		U	200	x
Benzo(k)fluoranthene	207-08-9	ug/kg		U	210		U	200	x
Benzyl Butyl Phthalate	85-68-7	ug/kg		U	210		U	200	x
Biphenyl (Diphenyl)	92-52-4	ug/kg		U	210		U	200	x
bis(2-Chloroethoxy) Methane	111-91-1	ug/kg		U	210		U	200	x
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/kg		U	400		U	400	x
bis(2-Chloroisopropyl) Ether	108-60-1	ug/kg		U	400		U	400	x
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg		U	210		U	200	x
Caprolactam	105-60-2	ug/kg		U	400		U	400	x
Carbazole	86-74-8	ug/kg		U	400		U	400	x
Chrysene	218-01-9	ug/kg		U	210		U	200	x
Dibenz(a,h)anthracene	53-70-3	ug/kg		U	210		U	200	x
Dibenzofuran	132-64-9	ug/kg		U	210		U	200	x
Diethyl Phthalate	84-66-2	ug/kg		U	210		U	200	x

Table 4-3
Relative Percent Difference - Soil Samples
GCL Tie treating Superfund Site
Sidney, New York

		Location:	SB-BR-LIF16			SB-BR-LIF16			RPD %	
		Sample:	SB-BR-LIF16-25-26			SB-BR-LIF16-25-26-1				
		Start Depth (ft):	25			25				
		End Depth (ft):	26			26				
		Sample Date:	9/12/2022			9/12/2022				
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**RDL**	**Result**	**Qual**	**RDL**		
Dimethyl Phthalate	131-11-3	ug/kg		U	210		U	200	x	
Di-N-Butyl Phthalate	84-74-2	ug/kg		U	210		U	200	x	
Di-N-Octylphthalate	117-84-0	ug/kg		U	400		U	400	x	
Fluoranthene	206-44-0	ug/kg		U	210		U	200	x	
Fluorene	86-73-7	ug/kg		U	210		U	200	x	
Hexachlorobenzene	118-74-1	ug/kg		U	210		U	200	x	
Hexachlorobutadiene	87-68-3	ug/kg		U	210		U	200	x	
Hexachlorocyclopentadiene	77-47-4	ug/kg		U	400		U	400	x	
Hexachloroethane	67-72-1	ug/kg		U	210		U	200	x	
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg		U	210		U	200	x	
Isophorone	78-59-1	ug/kg		U	210		U	200	x	
Naphthalene	91-20-3	ug/kg		U	210		U	200	x	
Nitrobenzene	98-95-3	ug/kg		U	210		U	200	x	
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg		U	210		U	200	x	
N-Nitrosodiphenylamine	86-30-6	ug/kg		U	210		U	200	x	
Pentachlorophenol	87-86-5	ug/kg		U	400		U	400	x	
Phenanthrene	85-01-8	ug/kg		U	210		U	200	x	
Phenol	108-95-2	ug/kg		U	400		U	400	x	
Pyrene	129-00-0	ug/kg		U	210		U	200	x	
Parameters										
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg		U	261		U	255	x	
Solids, Percent	SOLID	%	76.5		0.1	78.3		0.1	2.33%	
TPH, HEM-SGT	TPHNONPOLAR	mg/kg		U	261		U	255	x	Summary
Number of non-detect pairs									**124**	**912**
Number of calculated RPD pairs									**2**	**85**
Maximum RPD									**34.9%**	**176.6%**
Minimum RPD									**2.3%**	**0.0%**
Number of calculated RPD pairs exceeding 50% RPD limit									**0**	**24**

Table 4-4
Correlating LIF to Hydraulic Conductivity
GCL Tie and Treating Superfund Site
Sidney, New York

LIF Boring ID	Start Depth (ft)	End Depth (ft)	Average LIF Response (%)	Hydraulic Conductivity (Kh) (ft/day)
LIF-2	7.50	8.00	64	--
LIF-3	16.40	16.95	68	6
	21.10	23.20	71	18
LIF-4	9.80	9.85	56	--
	19.00	19.35	77	32
LIF-10	22.35	22.75	65	65
	29.75	30.05	63	12
LIF-11	19.30	19.40	57	40
	19.85	20.00	61	20
LIF-12	10.95	14.55	78	--
	15.70	16.00	57	43
	17.90	18.40	76	38
	19.70	19.75	66	38
	25.00	25.10	50	38
LIF-15	49.10	49.40	78	42
	50.70	51.60	82	32
LIF-18	9.20	9.55	67	--
	10.65	10.70	55	--
	11.25	14.75	69	35
	15.75	16.00	62	44
	18.00	18.10	54	48
	18.45	18.65	55	53
	19.80	22.15	73	35
LIF-19	11.10	12.70	66	--
	13.95	14.83	64	15
	17.50	17.80	64	15
LIF-22	15.50	15.60	59	--
	15.85	15.95	53	--
	18.50	18.65	68	47
	18.80	19.70	71	37
	46.90	47.35	66	32
	47.85	48.55	65	32
	48.80	48.85	53	29
LIF-24	13.90	14.35	72	8
LIF-26	23.85	24.24	59	72
	27.75	28.60	70	77
	45.20	46.15	65	85
	47.90	48.05	56	64

Notes: Kh values were aligned with EC Logs (Hager-Richter Geoscience, Inc.

Interval was underlain by Kh more than 2x lower than interval with NAPL.

The hydraulic conductivity values on the EC logs should be viewed as estimates due to the intrinsic uncertainty of the methodology. The hydraulic conductivity value should not be evaluated as direct measurements of hydraulic conductivity.

LIF=Laser Induced Fluoresence

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			SYS_LOC_CODE	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
			START_DEPTH	9	19	19	29	39	50	53	60	67	7	13	17	21	26	32	42	60	74
			SYS_SAMPLE_CODE	SB-BR-01-09-10	SB-BR-01-19-20	SB-BR-01-19-20-1	SB-BR-01-29-30	SB-BR-01-39-40	SB-BR-01-50-51	SB-BR-01-53-54	SB-BR-01-60-61	SB-BR-01-67-68	SB-BR-02-07-08	SB-BR-02-13-14	SB-BR-02-17-18	SB-BR-02-21-22	SB-BR-02-26-27	SB-BR-02-32-33	SB-BR-02-42-43	SB-BR-02-60-61	SB-BR-02-74-75
Analyte	**CAS**	**Units**																			
	Total BTEX			***1.10***	***14.00***	***12.50***	***0***	***0***	***0***	***0***	***0***	***0***	***12,219***	***12,332***	***11.10***	***35.70***	***28,752.00***	***1,304.00***	***0***	***0***	***0***
1,1,1-Trichloroethane	71-55-6	ug/kg																			
1,1-Dichloroethane	75-34-3	ug/kg																			
1,1-Dichloroethene	75-35-4	ug/kg																			
1,2,4-Trimethylbenzene	95-63-6	ug/kg		21	17								8200	8700	40	68	17000	710			
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg																			
1,2-Dichloropropane	78-87-5	ug/kg																			
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg		14	11								3400	3600	24	29	7300	380 J			
2-Butanone	78-93-3	ug/kg	6 J	8 J	11 J																
2-Hexanone	591-78-6	ug/kg																			
Acetone	67-64-1	ug/kg	30	34	36		24	8 J	16	13	5.7 J		30	18 J+	7.6 J	6.9 J	11	8.1 J	12	18	7.5 J
Benzene	71-43-2	ug/kg	1.1 J	1.6 J	1.5 J								19 J+	32 J+			52	14			
Bromomethane	74-83-9	ug/kg												9.3 J+							
Carbon Disulfide	75-15-0	ug/kg		2.3 J	1.6 J																
Carbon Tetrachloride	56-23-5	ug/kg																			
Chlorobenzene	108-90-7	ug/kg											1.6 J-								
Chloroform	67-66-3	ug/kg																			
cis-1,2-Dichloroethene	156-59-2	ug/kg																			
cis-1,3-Dichloropropene	10061-01-5	ug/kg																			
Cyclohexane	110-82-7	ug/kg		1.6 J									8.6 J+								
Ethylbenzene	100-41-4	ug/kg		2 J	2.1 J								1800	1600	2.8 J	6.5	3100	180			
Isopropylbenzene	98-82-8	ug/kg														4 J					
M, P Xylenes	179601-23-1	ug/kg		3.9 J	3.9 J								6700	6800	5.3	19	16000	590			
Methyl Acetate	79-20-9	ug/kg		4.7 J	3.5 J																
Methylcyclohexane	108-87-2	ug/kg		2.7 J									5.5 J+	7.4 J+			1.7 J	1.1 J			
Methylene Chloride	75-09-2	ug/kg	4.7 J	3 J	3.6 J	2 J	3.7 J	2.8 J	3.4 J	1.8 J	2.8 J		4.7 J		1.9 J	1.4 J	1.9 J	1.6 J	1.5 J	2.3 J	1.4 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg		3.4 J	2.9 J								2600	2800	3 J	8.1	5900	280 J			
Styrene	100-42-5	ug/kg											1600	1800	1.1 J	2.7 J	5600	210 J			
Toluene	108-88-3	ug/kg		3.1 J	2.1 J								1100	1100		2.1 J	3700	240 J			
Trichloroethene (TCE)	79-01-6	ug/kg											8.8 J+	9.5 J+			23	3.7 J			
Vinyl Chloride	75-01-4	ug/kg																			
	Total SVOCs		***11000.00***	***467910.00***	***91330.00***	***57.00***	***0.00***	***0.00***	***0.00***	***70.00***	***59.00***	***6800000.00***	***1745000.00***	***542900.00***	***9239.00***	***13220000.00***	***772.00***	***0.00***	***961.00***	***318.00***	
1-methylnaphthalene	90-12-0	ug/kg		1800	650 J								220000 J	83000	25000	220	570000 J				
2,4-Dinitrotoluene	121-14-2	ug/kg																			
2-Methylnaphthalene	91-57-6	ug/kg		4500	1100								470000	170000	50000	230	1200000			71 J	
4-Chloroaniline	106-47-8	ug/kg		1500 J																	
4-Nitroaniline	100-01-6	ug/kg		1300 J	250 J																
Acenaphthene	83-32-9	ug/kg	410 J	7900	3200								250000 J	78000	43000	470	610000				
Acenaphthylene	208-96-8	ug/kg		690 J										24000 J		150 J					
Acetophenone	98-86-2	ug/kg																			
Anthracene	120-12-7	ug/kg	620 J	150000	9300	57 J					59 J		220000 J	33000 J	24000	230	540000 J	50 J			
Benzo(a)anthracene	56-55-3	ug/kg	690 J	16000	4000								120000 J	33000 J	14000	140 J	240000 J				
Benzo(a)pyrene	50-32-8	ug/kg		8900	2700										6200 J	68 J					
Benzo(b)fluoranthene	205-99-2	ug/kg	810 J	14000	5000									19000 J	9000 J	91 J					
Benzo(g,h,i)perylene	191-24-2	ug/kg		2000	830																
Benzo(k)fluoranthene	207-08-9	ug/kg		4400	1500																
Biphenyl (Diphenyl)	92-52-4	ug/kg		920 J										25000 J	11000 J	160 J					
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg								70 J										450	78 J
Carbazole	86-74-8	ug/kg	380 J	27000	2300								110000 J	23000 J	9700 J	640	240000 J	72 J			
Chrysene	218-01-9	ug/kg	840 J	19000	5200								110000 J	26000 J	12000 J	100 J	190000 J				
Dibenz(a,h)anthracene	53-70-3	ug/kg		1000 J	400 J																
Dibenzofuran	132-64-9	ug/kg	480 J	7800	2500								280000 J	90000	43000	850	630000				
Fluoranthene	206-44-0	ug/kg	2300	65000	17000								470000	140000	61000	580	1000000	150 J			
Fluorene	86-73-7	ug/kg		23000	4500								320000	99000	46000	730	730000				
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg		3100	1200																
Naphthalene	91-20-3	ug/kg	770 J	5100	1700								3000000	520000	19000	1400	4500000	140 J		390	240
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg																			
N-Nitrosodiphenylamine	86-30-6	ug/kg																			
Phenanthrene	85-01-8	ug/kg	2400	59000	17000								920000	290000	130000	2800	2100000	250		50 J	
Pyrene	129-00-0	ug/kg	1300	44000	11000								310000	92000	40000	380	670000	110 J			

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			SYS_LOC_CODE	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
			START_DEPTH	9	19	19	29	39	50	53	60	67	7	13	17	21	26	32	42	60	74
			SYS_SAMPLE_CODE	SB-BR-01-09-10	SB-BR-01-19-20	SB-BR-01-19-20-1	SB-BR-01-29-30	SB-BR-01-39-40	SB-BR-01-50-51	SB-BR-01-53-54	SB-BR-01-60-61	SB-BR-01-67-68	SB-BR-02-07-08	SB-BR-02-13-14	SB-BR-02-17-18	SB-BR-02-21-22	SB-BR-02-26-27	SB-BR-02-32-33	SB-BR-02-42-43	SB-BR-02-60-61	SB-BR-02-74-75
Analyte	**CAS**	**Units**																			
	Total VOC TICs			***16.00***	***1444.10***	***1149.90***	***0.00***	***5.10***	***0.00***	***6.20***	***6.50***	***14.00***	***3869063.00***	***4704.10***	***3311.50***	***1966.00***	***1555.80***	***1623.20***	***324.50***	***100.80***	***63.20***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																			
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																			
.beta.-Pinene	127-91-3	ug/kg												8.6 NJ							
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg		13 NJ																	
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg													110 NJ						
1,2,3-Trimethyl Benzene	526-73-8	ug/kg											3200 NJ								
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg			9.6 NJ																
1,2-Dimethylindan	17057-82-8	ug/kg																			
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																			
1,7-Dimethyl Naphthalene	575-37-1	ug/kg		7.8 NJ																	
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																			
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg																			
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																11 NJ			
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg		12 NJ									370 NJ			14 NJ	16 NJ	33 NJ			
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg																			
1-Ethyl Naphthalene	1127-76-0	ug/kg																			
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																			
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg		12 NJ											6.2 NJ		74 NJ				
1-Ethyltoluene	611-14-3	ug/kg			9.9 NJ								2400 NJ	61 NJ		20 NJ		62 NJ			
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg		11 NJ	8.4 NJ									8.6 NJ	51 NJ	14 NJ					
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																			
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																			
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																			
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg		13 NJ	28 NJ								240 NJ	41 NJ	190 NJ		12 NJ	34 NJ			
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																			
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																			
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg													49 NJ						
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg		7 NJ											25 NJ						
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg			12 NJ								240 NJ	30 NJ	140 NJ	19 NJ	10 NJ	25 NJ			
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg												25 NJ							
1-Methylindan	767-58-8	ug/kg			9.8 NJ																
1-Methylindene	767-59-9	ug/kg											180 NJ								
1-methylnaphthalene	90-12-0	ug/kg		170 NJ	210 NJ											68 NJ		13 NJ	29 NJ	16 NJ	
2,3-Benzofuran	271-89-6	ug/kg											2200 NJ	70 NJ			83 NJ	47 NJ			
2,3-Dihydro-1h-Indene	496-11-7	ug/kg		75 NJ	64 NJ									310 NJ	240 NJ	110 NJ	160 NJ	220 NJ			
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																			
2,3-Dimethyl Naphthalene	581-40-8	ug/kg		16 NJ																	
2,4-Dimethylstyrene	2234-20-0	ug/kg													55 NJ						
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg												66 NJ				6.3 NJ			
2,6-Dimethyl-Napthalene	581-42-0	ug/kg			16 NJ														6.4 NJ		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg		18 NJ																	
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg													18 NJ						
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg												10 NJ			6.7 NJ	19 NJ			
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg											190 NJ								
2-METHYLBENZOFURAN	4265-25-2	ug/kg																			
2-METHYLINDENE	2177-47-1	ug/kg													47 NJ						
2-Methylnaphthalene	91-57-6	ug/kg		270 NJ									62 NJ	21 NJ	310 NJ	68 NJ			64 NJ	6.4 NJ	10 NJ
2-Methylthiophene	554-14-3	ug/kg												12 NJ			5.8 NJ				
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																			
3-METHYL-1H-INDENE	767-60-2	ug/kg																			
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																			
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg			9.9 NJ																
3-Methylphenylacetylene	766-82-5	ug/kg																			
3-METHYLTHIOPHENE	616-44-4	ug/kg															5.3 NJ				
3-phenyl-2-propenal	104-55-2	ug/kg																			
3-Phenylbut-1-ene	934-10-1	ug/kg														32 NJ					
3-Vinyltoluene	100-80-1	ug/kg											460 NJ				22 NJ	15 NJ			
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg													91 NJ	6.4 NJ					
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg		7.2 NJ	6.2 NJ													5.4 NJ			
4-Ethyltoluene	622-96-8	ug/kg																			
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg															140 NJ				
Acenaphthene	83-32-9	ug/kg		8.7 NJ																	
Alpha Methylstyrene	98-83-9	ug/kg												21 NJ			26 NJ				
Azulene	275-51-4	ug/kg		570 NJ																	
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																			
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																			
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg																			
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg											1000 NJ								
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg													46 NJ						
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																			
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg												18 NJ							
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg													69 NJ	6.5 NJ					
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg																			
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg																			
Benzo[b]thiophene	95-15-8	ug/kg			23 NJ								140 NJ	68 NJ							
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg																			
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																			
Benzo[C]Thiophene	270-82-6	ug/kg		27 NJ											79 NJ		7.9 NJ				
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg											550 NJ	67 NJ		40 NJ	32 NJ	70 NJ			
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg		24 NJ	19 NJ																
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg											530 NJ		19 NJ		9.6 NJ	11 NJ			
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																			
Biphenyl (Diphenyl)	92-52-4	ug/kg		15 NJ	11 NJ											9.3 NJ			8.8 NJ		
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																			

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
	START_DEPTH		9	19	19	29	39	50	53	60	67	7	13	17	21	26	32	42	60
	SYS_SAMPLE_CODE		SB-BR-01-09-10	SB-BR-01-19-20	SB-BR-01-19-20-1	SB-BR-01-29-30	SB-BR-01-39-40	SB-BR-01-50-51	SB-BR-01-53-54	SB-BR-01-60-61	SB-BR-01-67-68	SB-BR-02-07-08	SB-BR-02-13-14	SB-BR-02-17-18	SB-BR-02-21-22	SB-BR-02-26-27	SB-BR-02-32-33	SB-BR-02-42-43	SB-BR-02-60-61
Analyte	**CAS**	**Units**																	
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg		48 NJ															
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg													76 NJ		20 NJ	9.6 NJ	
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg										140 NJ	41 NJ		32 NJ	14 NJ	34 NJ		
Cyclopropylbenzene	873-49-4	ug/kg																	
Cymene	99-87-6	ug/kg																	
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg			12 NJ														
Ethyl Acetate	141-78-6	ug/kg																	
Ethyl Naphthalene; 2-	939-27-5	ug/kg		11 NJ	8.4 NJ														
Heptanal	111-71-7	ug/kg																	
Hexanal	66-25-1	ug/kg																	
Indene	95-13-6	ug/kg										3500 NJ	550 NJ	28 NJ	76 NJ	180 NJ	250 NJ	6.7 NJ	
M-Cymene	535-77-3	ug/kg													6.8 NJ				
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																	
Naphthalene	91-20-3	ug/kg	16 NJ		520 NJ		5.1 NJ		6.2 NJ		6.6 NJ							200 NJ	73 NJ
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg		18 NJ	15 NJ														
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																	
Nonanol	124-19-6	ug/kg								6.5 NJ	7.4 NJ								5.4 NJ
N-Propylbenzene	103-65-1	ug/kg										120 NJ							
Octanal	124-13-0	ug/kg																	
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg												130 NJ					
Pentafluorobenzene	363-72-4	ug/kg																	
Phenylethyne	536-74-3	ug/kg														6.5 NJ			
Pinene	7785-26-4	ug/kg		8.7 NJ									2000 NJ	410 NJ		680 NJ	310 NJ		
Pinene	80-56-8	ug/kg										2600 NJ							
Propylene	115-07-1	ug/kg																	
Pyridine	110-86-1	ug/kg																	
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg																	
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg										71 NJ							
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																	
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg											70 NJ			20 NJ			
Total Alkane Tics	E966796	ug/kg										90 J							
Unknown-01	UNKNOWN-01	ug/kg		6.6 NJ	35 J							940000 J	27 J	11 NJ	5.9 J	14 J	19 J		4.2 NJ
Unknown-02	UNKNOWN-02	ug/kg		11 NJ	6.7 J							2900000 J	11 J	70 NJ	7.2 J	19 NJ	6.6 NJ		
Unknown-03	UNKNOWN-03	ug/kg		35 NJ	110 NJ							2000 NJ	7.2 J	15 J	20 NJ	12 NJ	36 NJ		
Unknown-04	UNKNOWN-04	ug/kg		12 J	6 NJ							710 J	18 J	12 J	29 NJ		30 NJ		
Unknown-05	UNKNOWN-05	ug/kg		8.5 J								4300 NJ	37 NJ	85 J	5.9 J		5.9 J		
Unknown-06	UNKNOWN-06	ug/kg		8.6 NJ								370 NJ	40 NJ	900 J	1300 J		340 J		
Unknown-07	UNKNOWN-07	ug/kg										3400 J	7.7 J	7.3 NJ					
Unknown-08	UNKNOWN-08	ug/kg											1000 J	98 NJ					
Unknown-09	UNKNOWN-09	ug/kg											58 NJ						
Unknown-10	UNKNOWN-10	ug/kg																	
Unknown-11	UNKNOWN-11	ug/kg																	
Unknown-12	UNKNOWN-12	ug/kg																	
Unknown-13	UNKNOWN-13	ug/kg																	
Unknown-14	UNKNOWN-14	ug/kg																	
Total SVOC TICs			***510***	***76,000***	***21,720***	***430***	***550***	***390***	***697***	***390***	***732***	***-***	***48,000***	***101,200***	***6,798***	***330,000***	***3,870***	***3,419***	***1,154***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																	
.gamma.-Sitosterol (01)	83-47-6	ug/kg																	
1(2H)-Isoquinolinone	491-30-5	ug/kg																	
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																	
1,2-Cyclohexanediol, Total	931-17-9	ug/kg																	
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																	
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																120 NJ	
1,3-Dimethylnaphthalene	575-41-7	ug/kg		1200 NDJ									24000 NDJ						
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																	
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg		1100 NDJ															
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																	
1,7-Dimethyl Naphthalene	575-37-1	ug/kg												7100 NDJ					
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																	
11h-Benzo[b]Fluorene	243-17-4	ug/kg			850 DNJ														
12-Hydroxystearic acid	106-14-9	ug/kg																	
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																	
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																	
1-Ethyl Naphthalene	1127-76-0	ug/kg																	
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg		5700 NDJ	620 DNJ									9700 NDJ					
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																	
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																	
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg		3900 NDJ	1300 NDJ									5700 NDJ	110 NJ				
1-Phenyl-1-Propyne	673-32-5	ug/kg											24000 NDJ			330000 NDJ			
1-Phenylnaphthalene	605-02-7	ug/kg																	
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																	
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																	
2,3-Dimethyl Naphthalene	581-40-8	ug/kg													110 NJ				
2,4-Nonadiyne	63621-15-8	ug/kg																	
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg		2100 NDJ															
2,6-Dimethyl-Napthalene	581-42-0	ug/kg		1500 NDJ															
2,7-Dimethyl Naphthalene	582-16-1	ug/kg												11000 NDJ					
2-Chlorocyclohexanol	1561-86-0	ug/kg				150 BNJ	190 BNJ	160 BNJ	180 BNJ	150 BNJ	130 BNJ				280 BNJ		270 BNJ	250 BNJ	230 BNJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																	

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NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
	START_DEPTH		9	19	19	29	39	50	53	60	67	7	13	17	21	26	32	42	60
	SYS_SAMPLE_CODE		SB-BR-01-09-10	SB-BR-01-19-20	SB-BR-01-19-20-1	SB-BR-01-29-30	SB-BR-01-39-40	SB-BR-01-50-51	SB-BR-01-53-54	SB-BR-01-60-61	SB-BR-01-67-68	SB-BR-02-07-08	SB-BR-02-13-14	SB-BR-02-17-18	SB-BR-02-21-22	SB-BR-02-26-27	SB-BR-02-32-33	SB-BR-02-42-43	SB-BR-02-60-61
Analyte	**CAS**	**Units**																	
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																	
2-METHYLBENZOFURAN	4265-25-2	ug/kg																	
2-Phenyl Naphthalene	612-94-2	ug/kg		2100 NDJ	580 NDJ														
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																	
2-Propenyl Benzene	300-57-2	ug/kg																	
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																	
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																	
3-AMINOTOLUENE	108-44-1	ug/kg																	
3-Methylcarbazole	4630-20-0	ug/kg		1100 NDJ															
3-Methylphenylacetylene	766-82-5	ug/kg																	
3-Picoline	108-99-6	ug/kg																	
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																	
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg			1700 NDJ														
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg		12000 NDJ	3200 NDJ									12000 NDJ	180 NJ				
4-Methylcarbazole	3770-48-7	ug/kg		1300 NDJ															
4-Methyldibenzofuran	7320-53-8	ug/kg		1600 NDJ	530 NDJ									7200 NDJ	140 NJ				
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg																	
5(4H)-Thebenidinone	64884-40-8	ug/kg																	
5-Aminoindan	24425-40-9	ug/kg																	
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																	
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																	
6(5H)-Phenanthridinone	1015-89-0	ug/kg													390 NJ				
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																	
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg																	
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																	
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg																	
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																	
9-Anthracenecarbonitrile	1210-12-4	ug/kg			530 NDJ									8000 NDJ					
9-Hexadecanoic Acid	486-25-9	ug/kg																	
9H-Fluoren-3-ol	6344-67-8	ug/kg		2600 NDJ															
9H-Fluoren-9-ol	1689-64-1	ug/kg																	
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																	
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg		2600 NDJ															
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																	
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																	
Acridine	260-94-6	ug/kg			890 NDJ									16000 NDJ					
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																	
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																	
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg																	300 NJ
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																	
Benzo(a)fluorene	238-84-6	ug/kg		2900 NDJ															
BENZO(B)CARBAZOLE	243-28-7	ug/kg																	
Benzo(c)cinnoline	230-17-1	ug/kg		1700 NDJ															
Benzo(c)phenanthrene	195-19-7	ug/kg																	
BENZO(KL)XANTHENE	200-23-7	ug/kg																	
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																	
Benzo[b]thiophene	95-15-8	ug/kg																	
Benzo[e]pyrene	192-97-2	ug/kg		4100 NDJ	1700 DNJ														
Benzo[f]quinoline	85-02-9	ug/kg																	
Benzo[h]quinoline	230-27-3	ug/kg																	
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																	
Beta-Sitosterol	83-46-5	ug/kg																	
Butyl citrate	77-94-1	ug/kg																	
CH3C(O)CH2CH2OH	590-90-9	ug/kg																	
Chloromethyl octadecanoate	77878-01-4	ug/kg																	
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg				100 BNJ		110 BNJ	140 BNJ	120 NBJ									
Cyclohexane	110-82-7	ug/kg																	
Cyclohexene	110-83-8	ug/kg																	
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																	
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																	
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																	
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg																	
Dibenzothiophene (Synfuel)	132-65-0	ug/kg		2600 NDJ	700 NDJ									6300 NDJ					
Dimantine	124-28-7	ug/kg																	
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																	
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																	
Ethenyl-cyclobutane	2597-49-1	ug/kg																	
Ethyl Naphthalene; 2-	939-27-5	ug/kg																	
Ethylidenecyclobutane	1528-21-8	ug/kg																	
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg			1100 NDJ									6800 NDJ					
Hexadecanoic Acid	57-10-3	ug/kg																	
Indene	95-13-6	ug/kg																	
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg		940 NDJ															

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
	START_DEPTH		9	19	19	29	39	50	53	60	67	7	13	17	21	26	32	42	60	74
	SYS_SAMPLE_CODE		SB-BR-01-09-10	SB-BR-01-19-20	SB-BR-01-19-20-1	SB-BR-01-29-30	SB-BR-01-39-40	SB-BR-01-50-51	SB-BR-01-53-54	SB-BR-01-60-61	SB-BR-01-67-68	SB-BR-02-07-08	SB-BR-02-13-14	SB-BR-02-17-18	SB-BR-02-21-22	SB-BR-02-26-27	SB-BR-02-32-33	SB-BR-02-42-43	SB-BR-02-60-61	SB-BR-02-74-75
Analyte	**CAS**	**Units**																		
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																		
Mesityl Oxide	141-79-7	ug/kg																		
Methyl Anthracene; 1-	610-48-0	ug/kg																		
Methyl Anthracene; 2-	613-12-7	ug/kg																		
Methyl Hexadecanoate	112-39-0	ug/kg																		
Methyl Phenanthrene; 2-	2531-84-2	ug/kg		3900 NDJ	1300 DNJ															
Methyl Pyrene	2381-21-7	ug/kg		2300 NDJ	680 NDJ									6000 NDJ						
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Naphtho[1,2-b]thiophene	234-41-3	ug/kg													130 NJ					
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																		
Naphtho[2,1-b]thiophene	233-02-3	ug/kg																		
N-Methylaniline	100-61-8	ug/kg													300 NJ					
Nonanoic Acid	112-05-0	ug/kg																		
Nonanol	124-19-6	ug/kg																		
Octadecanoic Acid	57-11-4	ug/kg																		
Octanoic Acid	124-07-2	ug/kg																		
Oleamide	301-02-0	ug/kg																		320 NJ
Oleic Acid	112-80-1	ug/kg																		
Perylene	1985-5-0	ug/kg		1100 NDJ																
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg			530 NDJ															
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg																		
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg													350 NJ					
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																		
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg																		
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																		
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																		
Quinoline, 2-Methyl-	91-63-4	ug/kg													2300 NJ					
Total Alkane Tics	E966796	ug/kg													240 J		110 J	99 J	86 J	86 J
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg									110 BNJ									
Tributyl acetylcitrate	77-90-7	ug/kg																		
Triphenylphosphine Oxide	791-28-6	ug/kg																		63 NJ
Unknown-01	UNKNOWN-01	ug/kg	510 BDJ	1500 DJ	530 BDJ	180 BJ	240 BJ	120 BJ	77 J	120 BJ	400 BJ			5400 NDJ	1000 J		2400 J	2200 J	340 BJ	190 J
Unknown-02	UNKNOWN-02	ug/kg		1800 NDJ	730 NDJ		120 J		210 BJ		92 J				500 BJ		470 BJ	430 BJ	280 J	720 BJ
Unknown-03	UNKNOWN-03	ug/kg		8000 NDJ	960 NDJ				90 BJ						420 J		340 J	310 J	98 J	100 J
Unknown-04	UNKNOWN-04	ug/kg		940 DJ	700 NDJ										250 J		280 J	130 J		
Unknown-05	UNKNOWN-05	ug/kg		920 DJ	720 NDJ										98 NJ					
Unknown-06	UNKNOWN-06	ug/kg		1900 DJ	1300 NDJ															
Unknown-07	UNKNOWN-07	ug/kg		1200 DJ	570 DJ															
Unknown-08	UNKNOWN-08	ug/kg		1400 DJ																
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
Unknown-15	UNKNOWN-15	ug/kg																		
Unknown-16	UNKNOWN-16	ug/kg																		
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg		383									5460							
Solids, Percent	SOLID	%		81									75.4							
TPH, HEM-SGT	TPHNONPOLAR	mg/kg											703							

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04
	START_DEPTH		9	15	28	33	33	37	47	58	67	73	85	5	11	16	23	37	47	57
	SYS_SAMPLE_CODE		SB-BR-03-09-10	SB-BR-03-15-16	SB-BR-03-28-29	SB-BR-03-33-34	SB-BR-03-33-34-1	SB-BR-03-37-38	SB-BR-03-47-48	SB-BR-03-58-59	SB-BR-03-67-68	SB-BR-03-73-74	SB-BR-03-85-86	SB-BR-04-05-06	SB-BR-04-11-12	SB-BR-04-16-17	SB-BR-04-23-24	SB-BR-04-37-38	SB-BR-04-47-48	SB-BR-04-57-58
Analyte	**CAS**	**Units**																		
Total BTEX			***23,900.00***	***45.20***	***8,700.00***	***24,800.00***	***31,100***	***141***	***30.30***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1,1,1-Trichloroethane	71-55-6	ug/kg																		
1,1-Dichloroethane	75-34-3	ug/kg																		
1,1-Dichloroethene	75-35-4	ug/kg																		
1,2,4-Trimethylbenzene	95-63-6	ug/kg	21000	13	9500	19000	24000	93	2 J											
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg						39												
1,2-Dichloropropane	78-87-5	ug/kg																		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg	8400	4.3 J	3700 J	7400	9500	36	1.7 J											
2-Butanone	78-93-3	ug/kg																		
2-Hexanone	591-78-6	ug/kg																		
Acetone	67-64-1	ug/kg						13	18				12	13						
Benzene	71-43-2	ug/kg		1.6 J					1 J											
Bromomethane	74-83-9	ug/kg																		
Carbon Disulfide	75-15-0	ug/kg																		
Carbon Tetrachloride	56-23-5	ug/kg																		
Chlorobenzene	108-90-7	ug/kg																		
Chloroform	67-66-3	ug/kg																		
cis-1,2-Dichloroethene	156-59-2	ug/kg									4.7 J	3.5 J	2.1 J							
cis-1,3-Dichloropropene	10061-01-5	ug/kg																		
Cyclohexane	110-82-7	ug/kg																		
Ethylbenzene	100-41-4	ug/kg	3800 J	5.4 J	1500 J	3200 J	3900 J	16	6.1											
Isopropylbenzene	98-82-8	ug/kg						3.6 J	1.8 J											
M, P Xylenes	179601-23-1	ug/kg	13000	18	5000 J	14000	18000	81	9.3											
Methyl Acetate	79-20-9	ug/kg																		
Methylcyclohexane	108-87-2	ug/kg																		
Methylene Chloride	75-09-2	ug/kg		5.2 J				2.3 J	2.6 J	2.6 J	1.8 J	2.5 J	9.6							
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg	5700 J	9.2	2200 J	6000 J	7100	31	9.7											
Styrene	100-42-5	ug/kg	2500 J	2.7 J		4100 J	5200 J	24	5.5 J											
Toluene	108-88-3	ug/kg	1400 J	11		1600 J	2100 J	13	4.2 J											
Trichloroethene (TCE)	79-01-6	ug/kg									2.8 J	2 J								
Vinyl Chloride	75-01-4	ug/kg																		
Total SVOCs			***16360000.00***	***6100.00***	***5884000.00***	***15970000.00***	***17250000.00***	***35370.00***	***887.00***	***130.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg	550000		220000	640000	690000													
2,4-Dinitrotoluene	121-14-2	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg	1100000		440000	1300000	1400000													
4-Chloroaniline	106-47-8	ug/kg						1100 J												
4-Nitroaniline	100-01-6	ug/kg																		
Acenaphthene	83-32-9	ug/kg	880000		340000	880000	930000	1800												
Acenaphthylene	208-96-8	ug/kg	130000 J			150000 J	160000 J	390 J												
Acetophenone	98-86-2	ug/kg																		
Anthracene	120-12-7	ug/kg	340000		82000 J	230000 J	240000 J	880												
Benzo(a)anthracene	56-55-3	ug/kg	380000		150000	350000	370000	1200												
Benzo(a)pyrene	50-32-8	ug/kg	130000 J		53000 J	130000 J	140000 J	490 J												
Benzo(b)fluoranthene	205-99-2	ug/kg	200000 J		79000 J	190000 J	210000 J	660 J												
Benzo(g,h,i)perylene	191-24-2	ug/kg																		
Benzo(k)fluoranthene	207-08-9	ug/kg						230 J												
Biphenyl (Diphenyl)	92-52-4	ug/kg	220000 J		82000 J	220000 J	240000 J	430 J												
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg																		
Carbazole	86-74-8	ug/kg	210000 J	240 J	48000 J	150000 J	160000 J	840 J	200 J											
Chrysene	218-01-9	ug/kg	280000		90000 J	240000 J	260000 J	850												
Dibenz(a,h)anthracene	53-70-3	ug/kg																		
Dibenzofuran	132-64-9	ug/kg	940000	580	340000	890000	950000	2100												
Fluoranthene	206-44-0	ug/kg	1900000	410 J	700000	1600000	1800000	5200	67 J											
Fluorene	86-73-7	ug/kg	1100000		400000	1000000	1100000	2600												
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg																		
Naphthalene	91-20-3	ug/kg	3400000 R	3900 R	1200000 R	3900000 R	4200000 R	3800 R	620 R	130 R										
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg																		
N-Nitrosodiphenylamine	86-30-6	ug/kg																		
Phenanthrene	85-01-8	ug/kg	3400000	700	1200000	3000000	3200000	9400												
Pyrene	129-00-0	ug/kg	1200000	270 J	460000	1100000	1200000	3400												

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04
START_DEPTH			9	15	28	33	33	37	47	58	67	73	85	5	11	16	23	37	47
SYS_SAMPLE_CODE			SB-BR-03-09-10	SB-BR-03-15-16	SB-BR-03-28-29	SB-BR-03-33-34	SB-BR-03-33-34-1	SB-BR-03-37-38	SB-BR-03-47-48	SB-BR-03-58-59	SB-BR-03-67-68	SB-BR-03-73-74	SB-BR-03-85-86	SB-BR-04-05-06	SB-BR-04-11-12	SB-BR-04-16-17	SB-BR-04-23-24	SB-BR-04-37-38	SB-BR-04-47-48	SB-BR-04-57-58
Analyte	**CAS**	**Units**																	
Total VOC TICs			***554200.00***	***2407.00***	***306300.00***	***503500.00***	***638800.00***	***1931.90***	***299.20***	***0.00***	***0.00***	***37.00***	***4.42***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																		
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																		
.beta.-Pinene	127-91-3	ug/kg																		
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg																		
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg																		
1,2,3-Trimethyl Benzene	526-73-8	ug/kg																		
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																		
1,2-Dimethylindan	17057-82-8	ug/kg				3300 NDJ	3000 NDJ													
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg			23000 NDJ	34000 NDJ	2500 NDJ													
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg				7600 NDJ	8500 NDJ	10 NJ												
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg						37 NJ	10 NJ											
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																		
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg																		
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg					23000 NDJ													
1-Ethyl Naphthalene	1127-76-0	ug/kg	11000 NDJ			15000 NDJ	10000 NDJ													
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg			2900 NDJ															
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg						20 NJ												
1-Ethyltoluene	611-14-3	ug/kg	11000 NDJ		4500 NDJ	8500 NDJ	10000 NDJ													
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg						11 NJ												
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																		
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg	16000 NDJ			12000 NDJ														
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg					13000 NDJ													
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg					16000 NDJ													
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																		
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg					3700 NDJ													
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																		
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg																		
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg						21 NJ												
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																		
1-Methylindan	767-58-8	ug/kg																		
1-Methylindene	767-59-9	ug/kg				21000 NDJ														
1-methylnaphthalene	90-12-0	ug/kg																		
2,3-Benzofuran	271-89-6	ug/kg	8600 NDJ	33 NJ	5100 NDJ	8000 NDJ	11000 NDJ	17 NJ												
2,3-Dihydro-1h-Indene	496-11-7	ug/kg	81000 NDJ	51 NJ	43000 NDJ	58000 NDJ	81000 NDJ	100 NJ	54 NJ											
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Dimethylstyrene	2234-20-0	ug/kg																		
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg	16000 NDJ	8.5 NJ			21000 NDJ													
2,7-Dimethyl Naphthalene	582-16-1	ug/kg		8.5 NJ																
2,7-DIMETHYLTHIOPHENE	638-02-8	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg	16000 NDJ	8.5 NJ			21000 NDJ													
2,7-Dimethyl Naphthalene	582-16-1	ug/kg		8.5 NJ																
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																		
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg				3800 NDJ	6700 NDJ													
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg	48000 NDJ	39 NJ	22000 NDJ	40000 NDJ	45000 NDJ	21 NJ	24 NJ											
2-METHYLINDENE	2177-47-1	ug/kg	23000 NDJ		13000 NDJ	23000 NDJ	26000 NDJ	31 NJ	14 NJ											
2-Methylnaphthalene	91-57-6	ug/kg																		
2-Methylthiophene	554-14-3	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg		16 NJ																
3-METHYL-1H-INDENE	767-60-2	ug/kg			11000 NDJ															
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																		
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg	3800 NDJ																	
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-METHYLTHIOPHENE	616-44-4	ug/kg																		
3-phenyl-2-propenal	104-55-2	ug/kg																		
3-Phenylbut-1-ene	934-10-1	ug/kg			4400 NDJ															
3-Vinyltoluene	100-80-1	ug/kg						6.6 NJ												
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																		
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																		
4-Ethyltoluene	622-96-8	ug/kg																		
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Alpha Methylstyrene	98-83-9	ug/kg						7.3 NJ												
Azulene	275-51-4	ug/kg		2000 NJ				1300 NJ												
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																		
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																		
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg	9500 NDJ																	
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																		
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																		
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg					23000 NDJ													
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg																		
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg	4800 NDJ																	
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg	25000 NDJ	7 NJ	14000 NDJ	22000 NDJ			13 NJ											
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg				3800 NDJ	6700 NDJ													
Benzo[b]thiophene	95-15-8	ug/kg						88 NJ												
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg																		
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																		
Benzo[C]Thiophene	270-82-6	ug/kg			52000 NDJ	76000 NDJ			56 NJ											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg	18000 NDJ	14 NJ		15000 NDJ	16000 NDJ													
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																		
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg																		
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																		

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NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04
	START_DEPTH		9	15	28	33	33	37	47	58	67	73	85	5	11	16	23	37	47
	SYS_SAMPLE_CODE		SB-BR-03-09-10	SB-BR-03-15-16	SB-BR-03-28-29	SB-BR-03-33-34	SB-BR-03-33-34-1	SB-BR-03-37-38	SB-BR-03-47-48	SB-BR-03-58-59	SB-BR-03-67-68	SB-BR-03-73-74	SB-BR-03-85-86	SB-BR-04-05-06	SB-BR-04-11-12	SB-BR-04-16-17	SB-BR-04-23-24	SB-BR-04-37-38	SB-BR-04-47-48	SB-BR-04-57-58
Analyte	**CAS**	**Units**																	
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg																	
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg	120000 NDJ	120 NJ			83000 NDJ												
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																	
Cyclopropylbenzene	873-49-4	ug/kg																	
Cymene	99-87-6	ug/kg																	
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																	
Ethyl Acetate	141-78-6	ug/kg																	
Ethyl Naphthalene; 2-	939-27-5	ug/kg			10000 NDJ														
Heptanal	111-71-7	ug/kg																	
Hexanal	66-25-1	ug/kg										37 NJ							
Indene	95-13-6	ug/kg	100000 NDJ	110 NJ	47000 NDJ	110000 NDJ	130000 NDJ	250 NJ	110 NJ										
M-Cymene	535-77-3	ug/kg																	
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg					3700 NDJ												
Naphthalene	91-20-3	ug/kg																	
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg																	
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																	
Nonanol	124-19-6	ug/kg																	
N-Propylbenzene	103-65-1	ug/kg																	
Octanal	124-13-0	ug/kg																	
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg																	
Pentafluorobenzene	363-72-4	ug/kg					54000 NDJ												
Phenylethyne	536-74-3	ug/kg																	
Pinene	7785-26-4	ug/kg																	
Pinene	80-56-8	ug/kg				4700 NDJ	6600 NDJ												
Propylene	115-07-1	ug/kg											1.4 NJ						
Pyridine	110-86-1	ug/kg																	
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg																	
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																	
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																	
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg																	
Total Alkane Tics	E966796	ug/kg											0.74 J						
Unknown-01	UNKNOWN-01	ug/kg	1400 BDJ		6100 DJ	3100 DJ	2800 DJ	12 NJ	11 NJ				1.5 BJ						
Unknown-02	UNKNOWN-02	ug/kg	1000 NDJ		2200 DJ	2600 DJ	23000 NDJ		7.2 NJ				0.78 BJ						
Unknown-03	UNKNOWN-03	ug/kg	2600 DJ		3400 DJ	2000 DJ	5300 DJ												
Unknown-04	UNKNOWN-04	ug/kg	1400 DJ		5500 DJ	15000 NDJ	4300 DJ												
Unknown-05	UNKNOWN-05	ug/kg	17000 NDJ		8500 DJ	4700 DJ													
Unknown-06	UNKNOWN-06	ug/kg	21000 NDJ		11000 NDJ	3500 DJ													
Unknown-07	UNKNOWN-07	ug/kg	5500 DJ		3000 DJ	6900 DJ													
Unknown-08	UNKNOWN-08	ug/kg	4500 DJ		2200 DJ														
Unknown-09	UNKNOWN-09	ug/kg	4100 DJ		7800 NDJ														
Unknown-10	UNKNOWN-10	ug/kg			2200 DJ														
Unknown-11	UNKNOWN-11	ug/kg			2500 DJ														
Unknown-12	UNKNOWN-12	ug/kg																	
Unknown-13	UNKNOWN-13	ug/kg																	
Unknown-14	UNKNOWN-14	ug/kg																	
Total SVOC TICs			***1,870,000***	***1,780***	***1,159,000***	***1,840,000***	***1,960,000***	***4,860***	***510***	***490***	***1,395***	***1,169***	***920***	***1,320***	***19,700***	***1,860***	***3,500***	***2,180***	***3,496***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																	
.gamma.-Sitosterol (01)	83-47-6	ug/kg																	
1(2H)-Isoquinolinone	491-30-5	ug/kg																	
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																	
1,2-Cyclohexanediol, Total	931-17-9	ug/kg																	
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																	
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																	
1,3-Dimethylnaphthalene	575-41-7	ug/kg																	
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																	
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg																	
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																	
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																	
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																	
11h-Benzo[b]Fluorene	243-17-4	ug/kg	170000 NDJ				140000 NDJ	460 NDJ											
12-Hydroxystearic acid	106-14-9	ug/kg																	
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																	
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																	
1-Ethyl Naphthalene	1127-76-0	ug/kg																	
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg																	
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																	
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																	
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg																	
1-Phenyl-1-Propyne	673-32-5	ug/kg																	
1-Phenylnaphthalene	605-02-7	ug/kg																	
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																	
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																	
2,3-Dimethyl Naphthalene	581-40-8	ug/kg	170000 NDJ		76000 NDJ	210000 NDJ	220000 NDJ												
2,4-Nonadiyne	63621-15-8	ug/kg																	
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg																	
2,6-Dimethyl-Napthalene	581-42-0	ug/kg				130000 NDJ	140000 NDJ												
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																	
2-Chlorocyclohexanol	1561-86-0	ug/kg		300 BNDJ					280 BNJ	260 BNJ	340 BNJ	330 BNJ	300 BNJ	180 NJ	200 NJ	160 NJ	230 NJ	230 NJ	210 NJ	200 NJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																	

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04
	START_DEPTH		9	15	28	33	33	37	47	58	67	73	85	5	11	16	23	37	47
	SYS_SAMPLE_CODE		SB-BR-03-09-10	SB-BR-03-15-16	SB-BR-03-28-29	SB-BR-03-33-34	SB-BR-03-33-34-1	SB-BR-03-37-38	SB-BR-03-47-48	SB-BR-03-58-59	SB-BR-03-67-68	SB-BR-03-73-74	SB-BR-03-85-86	SB-BR-04-05-06	SB-BR-04-11-12	SB-BR-04-16-17	SB-BR-04-23-24	SB-BR-04-37-38	SB-BR-04-47-48	SB-BR-04-57-58
Analyte	**CAS**	**Units**																		
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg																		
2-Phenyl Naphthalene	612-94-2	ug/kg	110000 NDJ					300 NDJ												
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg		510 NDJ																
2-Propenyl Benzene	300-57-2	ug/kg																		
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																		
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																		
3-AMINOTOLUENE	108-44-1	ug/kg																		
3-Methylcarbazole	4630-20-0	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-Picoline	108-99-6	ug/kg		480 NDJ																
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																		
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg																		
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg	320000 NDJ		120000 NDJ	300000 NDJ	310000 NDJ	930 NDJ												
4-Methylcarbazole	3770-48-7	ug/kg																		
4-Methyldibenzofuran	7320-53-8	ug/kg	120000 NDJ		67000 NDJ	120000 NDJ	140000 NDJ	330 NDJ												
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg	170000 NDJ																	
5(4H)-Thebenidinone	64884-40-8	ug/kg																		
5-Aminoindan	24425-40-9	ug/kg																		260 NJ
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																		
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																		
6(5H)-Phenanthridinone	1015-89-0	ug/kg																		
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																		
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg																		
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																		
9-(Hydroxymethyl)-6,11-Dihydroxy-12-O	84-65-1	ug/kg																		
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																		
9-Anthracenecarbonitrile	1210-12-4	ug/kg																		
9-Hexadecanoic Acid	486-25-9	ug/kg		230 NDJ																
9H-Fluoren-3-ol	6344-67-8	ug/kg					190000 NDJ													
9H-Fluoren-9-ol	1689-64-1	ug/kg																		
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																		
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg																		
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																		
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																		
Acridine	260-94-6	ug/kg																		
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																		
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																		
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg												170 NJ	200 NJ	170 NJ	250 NJ	250 NJ	210 NJ	180 NJ
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																		
Benzo(a)fluorene	238-84-6	ug/kg			52000 NDJ															
BENZO(B)CARBAZOLE	243-28-7	ug/kg																		
Benzo(c)cinnoline	230-17-1	ug/kg																		
Benzo(c)phenanthrene	195-19-7	ug/kg																		
BENZO(KL)XANTHENE	200-23-7	ug/kg	130000 NDJ				130000 NDJ													
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg			51000 NDJ	120000 NDJ														
Benzo[b]thiophene	95-15-8	ug/kg																		
Benzo[e]pyrene	192-97-2	ug/kg																		
Benzo[f]quinoline	85-02-9	ug/kg																		
Benzo[h]quinoline	230-27-3	ug/kg																		
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																		
Beta-Sitosterol	83-46-5	ug/kg																		
Butyl citrate	77-94-1	ug/kg																		
CH3C(O)CH2CH2OH	590-90-9	ug/kg																		
Chloromethyl octadecanoate	77878-01-4	ug/kg																		
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg									180 NJ	190 NJ		150 NJ						
Cyclohexane	110-82-7	ug/kg																		
Cyclohexene	110-83-8	ug/kg													18000 NJ					
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																		
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																		
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg																		
Dibenzothiophene (Synfuel)	132-65-0	ug/kg	160000 NDJ		56000 NDJ	140000 NDJ														
Dimantine	124-28-7	ug/kg																		
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																		
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																		
Ethenyl-cyclobutane	2597-49-1	ug/kg			530000 NDJ															
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Ethylidenecyclobutane	1528-21-8	ug/kg																		
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg			62000 NDJ	150000 NDJ		420 NDJ												
Hexadecanoic Acid	57-10-3	ug/kg																		
Indene	95-13-6	ug/kg																		
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-04
	START_DEPTH		9	15	28	33	33	37	47	58	67	73	85	5	11	16	23	37	47	57
	SYS_SAMPLE_CODE		SB-BR-03-09-10	SB-BR-03-15-16	SB-BR-03-28-29	SB-BR-03-33-34	SB-BR-03-33-34-1	SB-BR-03-37-38	SB-BR-03-47-48	SB-BR-03-58-59	SB-BR-03-67-68	SB-BR-03-73-74	SB-BR-03-85-86	SB-BR-04-05-06	SB-BR-04-11-12	SB-BR-04-16-17	SB-BR-04-23-24	SB-BR-04-37-38	SB-BR-04-47-48	SB-BR-04-57-58
Analyte	**CAS**	**Units**																		
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																		
Mesityl Oxide	141-79-7	ug/kg																		
Methyl Anthracene; 1-	610-48-0	ug/kg	230000 NDJ			220000 NDJ	230000 NDJ	470 NDJ												
Methyl Anthracene; 2-	613-12-7	ug/kg	160000 NDJ		84000 NDJ															
Methyl Hexadecanoate	112-39-0	ug/kg																		
Methyl Phenanthrene; 2-	2531-84-2	ug/kg			61000 NDJ		160000 NDJ	700 NDJ												
Methyl Pyrene	2381-21-7	ug/kg																		
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Naphtho[1,2-b]thiophene	234-41-3	ug/kg					150000 NDJ	440 NDJ												
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																		
Naphtho[2,1-b]thiophene	233-02-3	ug/kg																		
N-Methylaniline	100-61-8	ug/kg																		
Nonanoic Acid	112-05-0	ug/kg																		
Nonanol	124-19-6	ug/kg																		
Octadecanoic Acid	57-11-4	ug/kg																		
Octanoic Acid	124-07-2	ug/kg																		
Oleamide	301-02-0	ug/kg																		
Oleic Acid	112-80-1	ug/kg																		
Perylene	1985-5-0	ug/kg																		
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																		
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg																		
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg																		
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																		
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg																		
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																		
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																		
Quinoline, 2-Methyl-	91-63-4	ug/kg																		
Total Alkane Tics	E966796	ug/kg									85 J									
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg											160 NJ							
Tributyl acetylcitrate	77-90-7	ug/kg																		
Triphenylphosphine Oxide	791-28-6	ug/kg																		
Unknown-01	UNKNOWN-01	ug/kg	130000 NDJ	260 BDJ		170000 NDJ	150000 NDJ	490 NDJ	230 BJ	230 BJ	330 BJ	250 BJ	160 BJ	210 J	610 J	990 J	2200 J	1700 J	76 J	79 J
Unknown-02	UNKNOWN-02	ug/kg				150000 NDJ		320 NDJ			360 BJ	320 BJ	300 BJ	610 J	690 J	540 J	820 J		3000 J	3100 J
Unknown-03	UNKNOWN-03	ug/kg				130000 NDJ					100 J	79 BJ								
Unknown-04	UNKNOWN-04	ug/kg																		
Unknown-05	UNKNOWN-05	ug/kg																		
Unknown-06	UNKNOWN-06	ug/kg																		
Unknown-07	UNKNOWN-07	ug/kg																		
Unknown-08	UNKNOWN-08	ug/kg																		
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
Unknown-15	UNKNOWN-15	ug/kg																		
Unknown-16	UNKNOWN-16	ug/kg																		
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg				41600														
Solids, Percent	SOLID	%				73.9														
TPH, HEM-SGT	TPHNONPOLAR	mg/kg				18100														

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			SYS_LOC_CODE	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05
			START_DEPTH	82	106	114	10	10	25	25	33	33	38	38	38	38	38	44	44	57	57
			SYS_SAMPLE_CODE	SB-BR-04-82-83	SB-BR-04-106-107	SB-BR-04-114-115	SB-BR-05-10-11	SB-BR-05-10-11-2	SB-BR-05-25-26	SB-BR-05-25-26-2	SB-BR-05-33-34	SB-BR-05-33-34-2	SB-BR-05-38-39	SB-BR-05-38-39-1	SB-BR-05-38-39-2	SB-BR-05-38-39-2-1	SB-BR-05-44-45	SB-BR-05-44-45-2	SB-BR-05-57-58	SB-BR-05-57-58-2
Analyte	**CAS**	**Units**																		
	Total BTEX			***0***	***0***	***0***	***10***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***6.30***	***0***	***51,800***	***0.00***	***4,680***	***9,000***
1,1,1-Trichloroethane	71-55-6	ug/kg		1.4 J											2.6 J					
1,1-Dichloroethane	75-34-3	ug/kg		1.1 J											1.3 J					
1,1-Dichloroethene	75-35-4	ug/kg													0.89 J					
1,2,4-Trimethylbenzene	95-63-6	ug/kg					13	6.5		1.9 J			260 J	2400	46		29000	410 J	6300	12000
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg						5.4 J-							14					
1,2-Dichloropropane	78-87-5	ug/kg						6.5	6.8	6.9		5.2			5.9					
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg					5.2 J	2.2 J					140 J	1300	25		15000	190 J	2700	5100
2-Butanone	78-93-3	ug/kg					37	30												
2-Hexanone	591-78-6	ug/kg							4.8 J						4.2 J					
Acetone	67-64-1	ug/kg					230	200												
Benzene	71-43-2	ug/kg																		
Bromomethane	74-83-9	ug/kg																		
Carbon Disulfide	75-15-0	ug/kg																		
Carbon Tetrachloride	56-23-5	ug/kg						10	9.4	10		8.2			8.5					
Chlorobenzene	108-90-7	ug/kg																		
Chloroform	67-66-3	ug/kg					17	35 J-	2.5 J	2.5 J		1.8 J			1.8 J					
cis-1,2-Dichloroethene	156-59-2	ug/kg		4.6 J											6.3					
cis-1,3-Dichloropropene	10061-01-5	ug/kg						3 J	3.1 J	3.2 J		2.4 J			2.7 J					
Cyclohexane	110-82-7	ug/kg							1.5 J						1.3 J					
Ethylbenzene	100-41-4	ug/kg															8100		780	1500
Isopropylbenzene	98-82-8	ug/kg													2.6 J		1100		280 J	
M, P Xylenes	179601-23-1	ug/kg													6.3		30000		2400	4600
Methyl Acetate	79-20-9	ug/kg																		
Methylcyclohexane	108-87-2	ug/kg						9	9.2	9.3		7.4			8.2					
Methylene Chloride	75-09-2	ug/kg						6.1 J												
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg															12000		1500	2900
Styrene	100-42-5	ug/kg													1.1 J		9100			
Toluene	108-88-3	ug/kg					9.8										1700			
Trichloroethene (TCE)	79-01-6	ug/kg		4.6 J				3.8 J							17		210 J			160 J
Vinyl Chloride	75-01-4	ug/kg																		
	Total SVOCs			***100.00***	***190.00***	***0.00***	***89320.00***	***0.00***	***160.00***	***0.00***	***240.00***	***0.00***	***721500.00***	***771600.00***	***0.00***	***0.00***	***963600.00***	***0.00***	***4111800.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg															30000		140000	
2,4-Dinitrotoluene	121-14-2	ug/kg																	6300 J	
2-Methylnaphthalene	91-57-6	ug/kg												43000			61000		280000	
4-Chloroaniline	106-47-8	ug/kg																		
4-Nitroaniline	100-01-6	ug/kg																		
Acenaphthene	83-32-9	ug/kg											47000	51000			77000		260000	
Acenaphthylene	208-96-8	ug/kg											5500 J	5400 J			3400 J		12000 J	
Acetophenone	98-86-2	ug/kg																		
Anthracene	120-12-7	ug/kg					6500						45000	41000			18000 J		78000	
Benzo(a)anthracene	56-55-3	ug/kg					4400 J						23000 J	19000 J			26000 J		110000	
Benzo(a)pyrene	50-32-8	ug/kg					2000 J						9400 J	7100 J			9600 J		47000 J	
Benzo(b)fluoranthene	205-99-2	ug/kg					3500 J						13000 J	11000 J			15000 J		69000	
Benzo(g,h,i)perylene	191-24-2	ug/kg					770 J						2800 J	1900 J			2300 J		12000 J	
Benzo(k)fluoranthene	207-08-9	ug/kg					1400 J						6300 J	3700 J			6300 J		28000 J	
Biphenyl (Diphenyl)	92-52-4	ug/kg					430 J						12000 J	13000 J			15000 J		65000	
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg		100 J																
Carbazole	86-74-8	ug/kg					2800 J						23000 J	27000 J			12000 J		29000 J	
Chrysene	218-01-9	ug/kg					4300 J						21000 J	16000 J			18000 J		84000	
Dibenz(a,h)anthracene	53-70-3	ug/kg					330 J												5500 J	
Dibenzofuran	132-64-9	ug/kg					3600 J						55000	54000			61000		250000	
Fluoranthene	206-44-0	ug/kg					19000						110000	100000			140000		560000	
Fluorene	86-73-7	ug/kg					4300 J						66000	65000			70000		280000	
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg					990 J						3500 J	2500 J			3000 J		16000 J	
Naphthalene	91-20-3	ug/kg									240			46000			74000		440000	
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg			190															
N-Nitrosodiphenylamine	86-30-6	ug/kg																		
Phenanthrene	85-01-8	ug/kg					23000		160 J				210000	200000			230000		970000	
Pyrene	129-00-0	ug/kg					12000						69000	65000			92000		370000	

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05
START_DEPTH			82	106	114	10	10	25	25	33	33	38	38	38	38	44	44	57	57
SYS_SAMPLE_CODE			SB-BR-04-82-83	SB-BR-04-106-107	SB-BR-04-114-115	SB-BR-05-10-11	SB-BR-05-10-11-2	SB-BR-05-25-26	SB-BR-05-25-26-2	SB-BR-05-33-34	SB-BR-05-33-34-2	SB-BR-05-38-39	SB-BR-05-38-39-1	SB-BR-05-38-39-2	SB-BR-05-38-39-2-1	SB-BR-05-44-45	SB-BR-05-44-45-2	SB-BR-05-57-58	SB-BR-05-57-58-2
Analyte	**CAS**	**Units**																	
Total VOC TICs			***0.00***	***0.00***	***0.00***	***300.30***	***185.50***	***0.00***	***0.00***	***0.00***	***0.00***	***1510.00***	***42760.00***	***634.60***	***1250.00***	***215500.00***	***6930.00***	***68070.00***	***97590.00***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																	
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg												26 NJ					
.beta.-Pinene	127-91-3	ug/kg																	
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg												7.9 NJ					4200 NDJ
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg				14 NJ	9.4 NJ						1700 NDJ	28 NJ					
1,2,3-Trimethyl Benzene	526-73-8	ug/kg																	
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																2800 NDJ	
1,2-Dimethylindan	17057-82-8	ug/kg																650 NDJ	
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																920 NDJ	
1,7-Dimethyl Naphthalene	575-37-1	ug/kg												11 NJ					
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																	
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg											2500 NDJ					3700 NDJ	5300 NDJ
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																	
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg					7 NJ									5900 NDJ			
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg																	
1-Ethyl Naphthalene	1127-76-0	ug/kg				9.4 NJ								9.4 NJ					
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																	
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg																	2100 NDJ
1-Ethyltoluene	611-14-3	ug/kg											1000 NDJ	11 NJ		6000 NDJ		1400 NDJ	
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg				10 NJ	7.8 NJ							28 NJ					
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg											2700 NDJ						
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																	
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																	
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg											3200 NDJ	68 NJ		12000 NDJ		4500 NDJ	7800 NDJ
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg												21 NJ					
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																	700 NDJ
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																	
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg				7.8 NJ							950 NDJ	17 NJ					
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg														7000 NDJ			6400 NDJ
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																	
1-Methylindan	767-58-8	ug/kg				12 NJ	26 NJ							23 NJ		4000 NDJ		2000 NDJ	2900 NDJ
1-Methylindene	767-59-9	ug/kg														7400 NDJ			3300 NDJ
1-methylnaphthalene	90-12-0	ug/kg																	
2,3-Benzofuran	271-89-6	ug/kg														3500 NDJ		1100 NDJ	
2,3-Dihydro-1h-Indene	496-11-7	ug/kg				45 NJ	24 NJ					900 NDJ	7900 NDJ	110 NJ		47000 NDJ	1700 NDJ	15000 NDJ	21000 NDJ
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg				7.7 NJ													
2,3-Dimethyl Naphthalene	581-40-8	ug/kg				11 NJ								7.6 NJ			560 NDJ		
2,4-Dimethylstyrene	2234-20-0	ug/kg																	
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																	
2,6-Dimethyl-Napthalene	581-42-0	ug/kg					14 NJ								470 NJ		850 NDJ		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg				14 NJ									320 NJ				
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																	
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg														1900 NDJ			
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg																	
2-METHYLBENZOFURAN	4265-25-2	ug/kg														8400 NDJ		4300 NDJ	6100 NDJ
2-METHYLINDENE	2177-47-1	ug/kg												16 NJ		3800 NDJ			
2-Methylnaphthalene	91-57-6	ug/kg																	
2-Methylthiophene	554-14-3	ug/kg																	
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																	
3-METHYL-1H-INDENE	767-60-2	ug/kg																	
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																	
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg					8.9 NJ							17 NJ					
3-Methylphenylacetylene	766-82-5	ug/kg																	
3-METHYLTHIOPHENE	616-44-4	ug/kg																	
3-phenyl-2-propenal	104-55-2	ug/kg																	
3-Phenylbut-1-ene	934-10-1	ug/kg																	
3-Vinyltoluene	100-80-1	ug/kg																	
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																	
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																	
4-Ethyltoluene	622-96-8	ug/kg																	690 NDJ
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																	
Acenaphthene	83-32-9	ug/kg																	
Alpha Methylstyrene	98-83-9	ug/kg																	
Azulene	275-51-4	ug/kg																	
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																	
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																	
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg											1200 NDJ						
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																	
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																	
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																	
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg																	
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg												19 NJ		2800 NDJ		1200 NDJ	1900 NDJ
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg				38 NJ	12 NJ						4400 NDJ	51 NJ				5400 NDJ	
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg																	
Benzo[b]thiophene	95-15-8	ug/kg					40 NJ					610 NDJ				6700 NDJ			
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg				6 NJ	7.1 NJ												
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg											630 NDJ						
Benzo[C]Thiophene	270-82-6	ug/kg											5400 NDJ	55 NJ			810 NDJ	7300 NDJ	
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg					7.3 NJ									4500 NDJ			
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																	
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg																	
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																	
Biphenyl (Diphenyl)	92-52-4	ug/kg																	
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg														12000 NDJ			

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05
	START_DEPTH		82	106	114	10	10	25	25	33	33	38	38	38	38	44	44	57	57
	SYS_SAMPLE_CODE		SB-BR-04-82-83	SB-BR-04-106-107	SB-BR-04-114-115	SB-BR-05-10-11	SB-BR-05-10-11-2	SB-BR-05-25-26	SB-BR-05-25-26-2	SB-BR-05-33-34	SB-BR-05-33-34-2	SB-BR-05-38-39	SB-BR-05-38-39-1	SB-BR-05-38-39-2	SB-BR-05-38-39-2-1	SB-BR-05-44-45	SB-BR-05-44-45-2	SB-BR-05-57-58	SB-BR-05-57-58-2
Analyte	**CAS**	**Units**																	
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg																	
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg				45 NJ													8800 NDJ
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																2400 NDJ	
Cyclopropylbenzene	873-49-4	ug/kg																	
Cymene	99-87-6	ug/kg				5.6 NJ													1300 NDJ
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																	
Ethyl Acetate	141-78-6	ug/kg																	
Ethyl Naphthalene; 2-	939-27-5	ug/kg					11 NJ								460 NJ		710 NDJ		
Heptanal	111-71-7	ug/kg																	
Hexanal	66-25-1	ug/kg																	
Indene	95-13-6	ug/kg											3200 NDJ	38 NJ		56000 NDJ	2300 NDJ	11000 NDJ	16000 NDJ
M-Cymene	535-77-3	ug/kg											640 NDJ	14 NJ					
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																	
Naphthalene	91-20-3	ug/kg																	
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg														6800 NDJ			
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg					11 NJ												
Nonanol	124-19-6	ug/kg																	
N-Propylbenzene	103-65-1	ug/kg																	
Octanal	124-13-0	ug/kg																	
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg				6.2 NJ							770 NDJ			2400 NDJ			
Pentafluorobenzene	363-72-4	ug/kg																	
Phenylethyne	536-74-3	ug/kg																	
Pinene	7785-26-4	ug/kg																	
Pinene	80-56-8	ug/kg												12 NJ					1600 NDJ
Propylene	115-07-1	ug/kg																	
Pyridine	110-86-1	ug/kg																	
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg												27 NJ					
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																	
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																	
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg																	
Total Alkane Tics	E966796	ug/kg																	
Unknown-01	UNKNOWN-01	ug/kg				22 J							2000 NDJ	10 NJ		5400 NDJ		1500 DJ	1500 DJ
Unknown-02	UNKNOWN-02	ug/kg				18 NJ							1100 DJ	7.7 J				1200 DJ	2100 DJ
Unknown-03	UNKNOWN-03	ug/kg				8.3 J							810 DJ			9500 NDJ		1700 DJ	1700 DJ
Unknown-04	UNKNOWN-04	ug/kg				12 J							1900 DJ			2500 DJ			2200 DJ
Unknown-05	UNKNOWN-05	ug/kg				8.3 J							760 NDJ						
Unknown-06	UNKNOWN-06	ug/kg																	
Unknown-07	UNKNOWN-07	ug/kg																	
Unknown-08	UNKNOWN-08	ug/kg																	
Unknown-09	UNKNOWN-09	ug/kg																	
Unknown-10	UNKNOWN-10	ug/kg																	
Unknown-11	UNKNOWN-11	ug/kg																	
Unknown-12	UNKNOWN-12	ug/kg																	
Unknown-13	UNKNOWN-13	ug/kg																	
Unknown-14	UNKNOWN-14	ug/kg																	
Total SVOC TICs			***14,445***	***2,620***	***1,309***	***1,893,500***	***-***	***7,364***	***-***	***-***	***-***	***456,000***	***412,000***	***-***	***-***	***555,000***	***-***	***1,202,000***	***-***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg	240 NJ																
.gamma.-Sitosterol (01)	83-47-6	ug/kg	620 NJ																
1(2H)-Isoquinolinone	491-30-5	ug/kg																	
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																25000 NDJ	
1,2-Cyclohexanediol, Total	931-17-9	ug/kg																	
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																	
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																	
1,3-Dimethylnaphthalene	575-41-7	ug/kg																23000 NDJ	
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																	
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg																	
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg	120 NJ																
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																66000 NDJ	
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																	
11h-Benzo[b]Fluorene	243-17-4	ug/kg											11000 NDJ			12000 NDJ		51000 NDJ	
12-Hydroxystearic acid	106-14-9	ug/kg																	
13-Octadecenoic acid, methy...	56554-47-3	ug/kg	660 NJ																
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																	
1-Ethyl Naphthalene	1127-76-0	ug/kg																	
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg										19000 NDJ						80000 NDJ	
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																	
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																	
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg																	
1-Phenyl-1-Propyne	673-32-5	ug/kg																	
1-Phenylnaphthalene	605-02-7	ug/kg																	
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																	
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																	
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																	
2,4-Nonadiyne	63621-15-8	ug/kg																	
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg																	
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																	
2,7-Dimethyl Naphthalene	582-16-1	ug/kg														11000 NDJ			
2-Chlorocyclohexanol	1561-86-0	ug/kg	220 NJ	180 NJ	170 NJ	2300 BNJ		180 NJ											
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																	

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05
	START_DEPTH		82	106	114	10	10	25	25	33	33	38	38	38	38	44	44	57	57
	SYS_SAMPLE_CODE		SB-BR-04-82-83	SB-BR-04-106-107	SB-BR-04-114-115	SB-BR-05-10-11	SB-BR-05-10-11-2	SB-BR-05-25-26	SB-BR-05-25-26-2	SB-BR-05-33-34	SB-BR-05-33-34-2	SB-BR-05-38-39	SB-BR-05-38-39-1	SB-BR-05-38-39-2	SB-BR-05-38-39-2-1	SB-BR-05-44-45	SB-BR-05-44-45-2	SB-BR-05-57-58	SB-BR-05-57-58-2
Analyte	**CAS**	**Units**																	
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																	
2-METHYLBENZOFURAN	4265-25-2	ug/kg																	
2-Phenyl Naphthalene	612-94-2	ug/kg																44000 NDJ	
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																	
2-Propenyl Benzene	300-57-2	ug/kg																	
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																	
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																46000 NDJ	
3-AMINOTOLUENE	108-44-1	ug/kg																	
3-Methylcarbazole	4630-20-0	ug/kg																	
3-Methylphenylacetylene	766-82-5	ug/kg																	
3-Picoline	108-99-6	ug/kg																	
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																	
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg																	
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg				3500 NJ						34000 NDJ	30000 NDJ			34000 NDJ		150000 NDJ	
4-Methylcarbazole	3770-48-7	ug/kg																	
4-Methyldibenzofuran	7320-53-8	ug/kg										11000 NDJ	14000 NDJ			12000 NDJ		46000 NDJ	
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg										16000 NDJ							
5(4H)-Thebenidinone	64884-40-8	ug/kg																	
5-Aminoindan	24425-40-9	ug/kg																	
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																	
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																	
6(5H)-Phenanthridinone	1015-89-0	ug/kg																	
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																	
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg																	
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																	
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg																	
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																	
9-Anthracenecarbonitrile	1210-12-4	ug/kg																	
9-Hexadecanoic Acid	486-25-9	ug/kg																	
9H-Fluoren-3-ol	6344-67-8	ug/kg																	
9H-Fluoren-9-ol	1689-64-1	ug/kg																68000 NDJ	
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																	
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg																41000 NDJ	
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg	340 NJ																
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																	
Acridine	260-94-6	ug/kg																	
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																	
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																	
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg	210 NJ		170 NJ														
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																	
Benzo(a)fluorene	238-84-6	ug/kg											12000 NDJ						
BENZO(B)CARBAZOLE	243-28-7	ug/kg																	
Benzo(c)cinnoline	230-17-1	ug/kg																	
Benzo(c)phenanthrene	195-19-7	ug/kg																	
BENZO(KL)XANTHENE	200-23-7	ug/kg																	
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																	
Benzo[b]thiophene	95-15-8	ug/kg																	
Benzo[e]pyrene	192-97-2	ug/kg																	
Benzo[f]quinoline	85-02-9	ug/kg																	
Benzo[h]quinoline	230-27-3	ug/kg																	
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																	
Beta-Sitosterol	83-46-5	ug/kg																	
Butyl citrate	77-94-1	ug/kg	370 NJ																
CH3C(O)CH2CH2OH	590-90-9	ug/kg																	
Chloromethyl octadecanoate	77878-01-4	ug/kg	400 NJ																
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg																	
Cyclohexane	110-82-7	ug/kg																	
Cyclohexene	110-83-8	ug/kg				260000 NJ						260000 NDJ	210000 NDJ			340000 NDJ		270000 NDJ	
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																	
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																	
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																	
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg																	
Dibenzothiophene (Synfuel)	132-65-0	ug/kg										14000 NDJ				14000 NDJ		63000 NDJ	
Dimantine	124-28-7	ug/kg						230 NJ											
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																	
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																	
Ethenyl-cyclobutane	2597-49-1	ug/kg																	
Ethyl Naphthalene; 2-	939-27-5	ug/kg																26000 NDJ	
Ethylidenecyclobutane	1528-21-8	ug/kg																	
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg										14000 NDJ				13000 NDJ			
Hexadecanoic Acid	57-10-3	ug/kg	430 NJ																
Indene	95-13-6	ug/kg																	
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																	

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-05
START_DEPTH			82	106	114	10	10	25	25	33	33	38	38	38	38	44	44	57	57
SYS_SAMPLE_CODE			SB-BR-04-82-83	SB-BR-04-106-107	SB-BR-04-114-115	SB-BR-05-10-11	SB-BR-05-10-11-2	SB-BR-05-25-26	SB-BR-05-25-26-2	SB-BR-05-33-34	SB-BR-05-33-34-2	SB-BR-05-38-39	SB-BR-05-38-39-1	SB-BR-05-38-39-2	SB-BR-05-38-39-2-1	SB-BR-05-44-45	SB-BR-05-44-45-2	SB-BR-05-57-58	SB-BR-05-57-58-2
Analyte	**CAS**	**Units**																	
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																	
Mesityl Oxide	141-79-7	ug/kg				7400 NJ													
Methyl Anthracene; 1-	610-48-0	ug/kg																	
Methyl Anthracene; 2-	613-12-7	ug/kg																27000 NDJ	
Methyl Hexadecanoate	112-39-0	ug/kg	160 NJ																
Methyl Phenanthrene; 2-	2531-84-2	ug/kg										13000 NDJ	12000 NDJ			16000 NDJ		58000 NDJ	
Methyl Pyrene	2381-21-7	ug/kg										13000 NDJ							
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg						130 NJ											
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																	
Naphtho[1,2-b]thiophene	234-41-3	ug/kg																	
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																	
Naphtho[2,1-b]thiophene	233-02-3	ug/kg											13000 NDJ						
N-Methylaniline	100-61-8	ug/kg																	
Nonanoic Acid	112-05-0	ug/kg	230 NJ																
Nonanol	124-19-6	ug/kg																	
Octadecanoic Acid	57-11-4	ug/kg	2200 NJ																
Octanoic Acid	124-07-2	ug/kg	92 NJ																
Oleamide	301-02-0	ug/kg																	
Oleic Acid	112-80-1	ug/kg	2600 NJ																
Perylene	1985-5-0	ug/kg																	
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																	
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg																	
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg																	
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																	
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																	
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg																	
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																	
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																	
Quinoline, 2-Methyl-	91-63-4	ug/kg																	
Total Alkane Tics	E966796	ug/kg																	
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg																	
Tributyl acetylcitrate	77-90-7	ug/kg																	
Triphenylphosphine Oxide	791-28-6	ug/kg																	
Unknown-01	UNKNOWN-01	ug/kg	2600 J	840 J	69 J	6300 J		110 J				62000 BDJ	93000 BDJ			91000 BDJ		64000 BDJ	
Unknown-02	UNKNOWN-02	ug/kg	130 J	180 J	900 J	1600000 BJ		6300 J					17000 NDJ			12000 NDJ		54000 NDJ	
Unknown-03	UNKNOWN-03	ug/kg	130 J	1300 J		14000 J		120 J											
Unknown-04	UNKNOWN-04	ug/kg	94 J	120 J				94 J											
Unknown-05	UNKNOWN-05	ug/kg	95 J					100 J											
Unknown-06	UNKNOWN-06	ug/kg	1900 J					100 J											
Unknown-07	UNKNOWN-07	ug/kg	210 J																
Unknown-08	UNKNOWN-08	ug/kg	94 J																
Unknown-09	UNKNOWN-09	ug/kg	110 NJ																
Unknown-10	UNKNOWN-10	ug/kg	190 NJ																
Unknown-11	UNKNOWN-11	ug/kg																	
Unknown-12	UNKNOWN-12	ug/kg																	
Unknown-13	UNKNOWN-13	ug/kg																	
Unknown-14	UNKNOWN-14	ug/kg																	
Unknown-15	UNKNOWN-15	ug/kg																	
Unknown-16	UNKNOWN-16	ug/kg																	
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg										6530							
Solids, Percent	SOLID	%										89.2							
TPH, HEM-SGT	TPHNONPOLAR	mg/kg										2470							

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07
		START_DEPTH	66	66	0	0	10	10	22	34	49	49	59	64	19	29	29	39	39	43
		SYS_SAMPLE_CODE	SB-BR-05-66-67	SB-BR-05-66-67-2	SB-BR-06-00-05	SB-BR-06-00-05-2	SB-BR-06-10-11	SB-BR-06-10-11-2	SB-BR-06-22-23	SB-BR-06-34-35	SB-BR-06-49-50	SB-BR-06-49-50-2	SB-BR-06-59-60	SB-BR-06-64-65	SB-BR-07-19-20	SB-BR-07-29-30	SB-BR-07-29-30-2	SB-BR-07-39-40	SB-BR-07-39-40-2	SB-BR-07-43-44
Analyte	**CAS**	**Units**																		
	Total BTEX		***0***	***0***	***1.40***	***0***	***0***	***0***	***0***	***0***	***0.90***	***0***	***0***	***5.90***	***6.82***	***2.40***	***0***	***0***	***0***	***20.4***
1,1,1-Trichloroethane	71-55-6	ug/kg																		
1,1-Dichloroethane	75-34-3	ug/kg																		
1,1-Dichloroethene	75-35-4	ug/kg																		
1,2,4-Trimethylbenzene	95-63-6	ug/kg			2.4 J										1.8 J	1.1 J				3.4 J
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg																		
1,2-Dichloropropane	78-87-5	ug/kg	5.4	6																
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg			1.9 J															1.3 J
2-Butanone	78-93-3	ug/kg			13 J															
2-Hexanone	591-78-6	ug/kg	4.5 J	4.8 J																
Acetone	67-64-1	ug/kg			51	40	21	10			21	15		12						
Benzene	71-43-2	ug/kg																		
Bromomethane	74-83-9	ug/kg																		
Carbon Disulfide	75-15-0	ug/kg																		
Carbon Tetrachloride	56-23-5	ug/kg	8.1	9.4																
Chlorobenzene	108-90-7	ug/kg																		
Chloroform	67-66-3	ug/kg	1.8 J	2.4 J																
cis-1,2-Dichloroethene	156-59-2	ug/kg																		4
cis-1,3-Dichloropropene	10061-01-5	ug/kg	2.6 J	2.8 J																
Cyclohexane	110-82-7	ug/kg																		
Ethylbenzene	100-41-4	ug/kg													0.92 J	1.1 J				3.4 J
Isopropylbenzene	98-82-8	ug/kg																		
M, P Xylenes	179601-23-1	ug/kg												3.9 J	3.8 J					6.8
Methyl Acetate	79-20-9	ug/kg																		
Methylcyclohexane	108-87-2	ug/kg	7.6	8.3																
Methylene Chloride	75-09-2	ug/kg													3.1 J			2.9 J	2.7 J	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg			1.4 J						0.9 J			2 J	2.1 J	1.3 J				5
Styrene	100-42-5	ug/kg																		2.9 J
Toluene	108-88-3	ug/kg																		5.2
Trichloroethene (TCE)	79-01-6	ug/kg					1.5 J	4.8												
Vinyl Chloride	75-01-4	ug/kg																		
	Total SVOCs		***160.00***	***0.00***	***24000.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***210.00***	***2300.00***	***790.00***	***0.00***	***0.00***	***0.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg																		
2,4-Dinitrotoluene	121-14-2	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg																		
4-Chloroaniline	106-47-8	ug/kg																		
4-Nitroaniline	100-01-6	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Acenaphthylene	208-96-8	ug/kg																		
Acetophenone	98-86-2	ug/kg																		
Anthracene	120-12-7	ug/kg																		
Benzo(a)anthracene	56-55-3	ug/kg																		
Benzo(a)pyrene	50-32-8	ug/kg																		
Benzo(b)fluoranthene	205-99-2	ug/kg			4400 J															
Benzo(g,h,i)perylene	191-24-2	ug/kg																		
Benzo(k)fluoranthene	207-08-9	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg												210						
Carbazole	86-74-8	ug/kg														260 J				
Chrysene	218-01-9	ug/kg			3400 J															
Dibenz(a,h)anthracene	53-70-3	ug/kg																		
Dibenzofuran	132-64-9	ug/kg														530				
Fluoranthene	206-44-0	ug/kg			7500										2300					
Fluorene	86-73-7	ug/kg																		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg																		
Naphthalene	91-20-3	ug/kg	160 J																	
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg																		
N-Nitrosodiphenylamine	86-30-6	ug/kg																		
Phenanthrene	85-01-8	ug/kg			3000 J															
Pyrene	129-00-0	ug/kg			5700															

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07
START_DEPTH			66	66	0	0	10	10	22	34	49	49	59	64	19	29	29	39	39	43
SYS_SAMPLE_CODE			SB-BR-05-66-67	SB-BR-05-66-67-2	SB-BR-06-00-05	SB-BR-06-00-05-2	SB-BR-06-10-11	SB-BR-06-10-11-2	SB-BR-06-22-23	SB-BR-06-34-35	SB-BR-06-49-50	SB-BR-06-49-50-2	SB-BR-06-59-60	SB-BR-06-64-65	SB-BR-07-19-20	SB-BR-07-29-30	SB-BR-07-29-30-2	SB-BR-07-39-40	SB-BR-07-39-40-2	SB-BR-07-43-44
Analyte	**CAS**	**Units**																		
Total VOC TICs			***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***40.60***	***35.60***	***0.00***	***11.30***	***94.80***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																		
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																		
.beta.-Pinene	127-91-3	ug/kg																		
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg																		
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg																		
1,2,3-Trimethyl Benzene	526-73-8	ug/kg																		
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																		
1,2-Dimethylindan	17057-82-8	ug/kg																		
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg																		
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																		
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg																		
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																		
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg																		
1-Ethyltoluene	611-14-3	ug/kg																		
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg																		
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																		
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																		
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																		
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg																		
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																		
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																		
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																		
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg																		
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg																		
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																		
1-Methylindan	767-58-8	ug/kg																		
1-Methylindene	767-59-9	ug/kg																		
1-methylnaphthalene	90-12-0	ug/kg																		
2,3-Benzofuran	271-89-6	ug/kg																		5 NJ
2,3-Dihydro-1h-Indene	496-11-7	ug/kg														11 NJ	7.6 NJ			18 NJ
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Dimethylstyrene	2234-20-0	ug/kg																		
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																		
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg																		
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg														11 NJ				8.8 NJ
2-METHYLINDENE	2177-47-1	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg																		
2-Methylthiophene	554-14-3	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																		
3-METHYL-1H-INDENE	767-60-2	ug/kg																		
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																		
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-METHYLTHIOPHENE	616-44-4	ug/kg																		
3-phenyl-2-propenal	104-55-2	ug/kg																		
3-Phenylbut-1-ene	934-10-1	ug/kg																		
3-Vinyltoluene	100-80-1	ug/kg																		
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																		
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																		
4-Ethyltoluene	622-96-8	ug/kg																		
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Alpha Methylstyrene	98-83-9	ug/kg																		
Azulene	275-51-4	ug/kg																		
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																		
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																		
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg																		
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																		
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																		
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																		
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg																		
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg																		
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg																		
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg																		
Benzo[b]thiophene	95-15-8	ug/kg														10 NJ				14 NJ
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg																		
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																		
Benzo[C]Thiophene	270-82-6	ug/kg															6.9 NJ			
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg															7.9 NJ			
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																		
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg																		
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07
	START_DEPTH		66	66	0	0	10	10	22	34	49	49	59	64	19	29	29	39	39
	SYS_SAMPLE_CODE		SB-BR-05-66-67	SB-BR-05-66-67-2	SB-BR-06-00-05	SB-BR-06-00-05-2	SB-BR-06-10-11	SB-BR-06-10-11-2	SB-BR-06-22-23	SB-BR-06-34-35	SB-BR-06-49-50	SB-BR-06-49-50-2	SB-BR-06-59-60	SB-BR-06-64-65	SB-BR-07-19-20	SB-BR-07-29-30	SB-BR-07-29-30-2	SB-BR-07-39-40	SB-BR-07-39-40-2	SB-BR-07-43-44
Analyte	**CAS**	**Units**																		
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																		
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																		
Cyclopropylbenzene	873-49-4	ug/kg																		
Cymene	99-87-6	ug/kg																		
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																		
Ethyl Acetate	141-78-6	ug/kg																		
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Heptanal	111-71-7	ug/kg																		
Hexanal	66-25-1	ug/kg																		
Indene	95-13-6	ug/kg														8.6 NJ				49 NJ
M-Cymene	535-77-3	ug/kg																		
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																		
Naphthalene	91-20-3	ug/kg																		
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Nonanol	124-19-6	ug/kg																		
N-Propylbenzene	103-65-1	ug/kg																		
Octanal	124-13-0	ug/kg																		
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg																		
Pentafluorobenzene	363-72-4	ug/kg																		
Phenylethyne	536-74-3	ug/kg																		
Pinene	7785-26-4	ug/kg																		
Pinene	80-56-8	ug/kg																		
Propylene	115-07-1	ug/kg																		
Pyridine	110-86-1	ug/kg																		
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg																		
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																		
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																		
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg																		
Total Alkane Tics	E966796	ug/kg																		
Unknown-01	UNKNOWN-01	ug/kg															6.6 J		5.9 J	
Unknown-02	UNKNOWN-02	ug/kg															6.6 J		5.4 J	
Unknown-03	UNKNOWN-03	ug/kg																		
Unknown-04	UNKNOWN-04	ug/kg																		
Unknown-05	UNKNOWN-05	ug/kg																		
Unknown-06	UNKNOWN-06	ug/kg																		
Unknown-07	UNKNOWN-07	ug/kg																		
Unknown-08	UNKNOWN-08	ug/kg																		
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
	Total SVOC TICs		***5,706***	***-***	***68,800***	***-***	***6,326***	***-***	***6,734***	***5,198***	***2,402***	***-***	***5,226***	***13,285***	***2,240***	***4,291***	***-***	***2,394***	***-***	***2,214***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																		
.gamma.-Sitosterol (01)	83-47-6	ug/kg																		
1(2H)-Isoquinolinone	491-30-5	ug/kg																		
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																		
1,2-Cyclohexanediol, Total	931-17-9	ug/kg					79 NJ		94 BNJ		77 BNJ			84 BNJ				140 NBJ		160 NBJ
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																		
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																		
1,3-Dimethylnaphthalene	575-41-7	ug/kg																		
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																		
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg																		
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																		
11h-Benzo[b]Fluorene	243-17-4	ug/kg																		
12-Hydroxystearic acid	106-14-9	ug/kg																		
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg																		
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																		
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																		
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg																		
1-Phenyl-1-Propyne	673-32-5	ug/kg																		
1-Phenylnaphthalene	605-02-7	ug/kg																		
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Nonadiyne	63621-15-8	ug/kg																		
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-Chlorocyclohexanol	1561-86-0	ug/kg	130 NJ				160 BNJ		190 BNJ	160 BNJ	160 BNJ		140 BNJ	170 BNJ		290 NBJ		260 NBJ		280 NBJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07
START_DEPTH			66	66	0	0	10	10	22	34	49	49	59	64	19	29	29	39	39	43
SYS_SAMPLE_CODE			SB-BR-05-66-67	SB-BR-05-66-67-2	SB-BR-06-00-05	SB-BR-06-00-05-2	SB-BR-06-10-11	SB-BR-06-10-11-2	SB-BR-06-22-23	SB-BR-06-34-35	SB-BR-06-49-50	SB-BR-06-49-50-2	SB-BR-06-59-60	SB-BR-06-64-65	SB-BR-07-19-20	SB-BR-07-29-30	SB-BR-07-29-30-2	SB-BR-07-39-40	SB-BR-07-39-40-2	SB-BR-07-43-44
Analyte	**CAS**	**Units**																		
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg														120 NJ				
2-METHYLBENZOFURAN	4265-25-2	ug/kg																		
2-Phenyl Naphthalene	612-94-2	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																		
2-Propenyl Benzene	300-57-2	ug/kg																		
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																		
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																		
3-AMINOTOLUENE	108-44-1	ug/kg																		
3-Methylcarbazole	4630-20-0	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-Picoline	108-99-6	ug/kg														91 NJ				
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																		
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg			2100 NDJ															
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg																		
4-Methylcarbazole	3770-48-7	ug/kg																		
4-Methyldibenzofuran	7320-53-8	ug/kg																		
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg																		
5(4H)-Thebenidinone	64884-40-8	ug/kg																		
5-Aminoindan	24425-40-9	ug/kg																		
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg														110 NJ				
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																		
6(5H)-Phenanthridinone	1015-89-0	ug/kg																		
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																		
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg									95 NBJ									
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																		
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg																		
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																		
9-Anthracenecarbonitrile	1210-12-4	ug/kg																		
9-Hexadecanoic Acid	486-25-9	ug/kg														350 NJ				
9H-Fluoren-3-ol	6344-67-8	ug/kg																		
9H-Fluoren-9-ol	1689-64-1	ug/kg																		
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																		
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg																		
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																		
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg														320 NJ				
Acridine	260-94-6	ug/kg													940 NDJ					
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																		
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																		
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg																		
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																		
Benzo(a)fluorene	238-84-6	ug/kg																		
BENZO(B)CARBAZOLE	243-28-7	ug/kg														220 NJ				
Benzo(c)cinnoline	230-17-1	ug/kg																		
Benzo(c)phenanthrene	195-19-7	ug/kg																		
BENZO(KL)XANTHENE	200-23-7	ug/kg																		
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																		
Benzo[b]thiophene	95-15-8	ug/kg																		
Benzo[e]pyrene	192-97-2	ug/kg																		
Benzo[f]quinoline	85-02-9	ug/kg																		
Benzo[h]quinoline	230-27-3	ug/kg																		
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																		
Beta-Sitosterol	83-46-5	ug/kg																		
Butyl citrate	77-94-1	ug/kg																		
CH3C(O)CH2CH2OH	590-90-9	ug/kg																		
Chloromethyl octadecanoate	77878-01-4	ug/kg																		
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg								77 BNJ										
Cyclohexane	110-82-7	ug/kg																		
Cyclohexene	110-83-8	ug/kg																		
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg			7100 NDJ				270 NJ	1300 NJ			200 NJ							
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																		
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg					180 BNJ		240 BNJ	180 BNJ	170 BNJ		160 BNJ	210 BNJ		280 NBJ		240 NBJ		270 NBJ
Dibenzothiophene (Synfuel)	132-65-0	ug/kg																		
Dimantine	124-28-7	ug/kg																		
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																		
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg			4000 NDJ		120 NJ		150 NJ				100 NJ	190 NJ						
Ethenyl-cyclobutane	2597-49-1	ug/kg																		
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Ethylidenecyclobutane	1528-21-8	ug/kg												6700 NJ						
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg																		
Hexadecanoic Acid	57-10-3	ug/kg								78 NJ										
Indene	95-13-6	ug/kg																		
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07
	START_DEPTH		66	66	0	0	10	10	22	34	49	49	59	64	19	29	29	39	39	43
	SYS_SAMPLE_CODE		SB-BR-05-66-67	SB-BR-05-66-67-2	SB-BR-06-00-05	SB-BR-06-00-05-2	SB-BR-06-10-11	SB-BR-06-10-11-2	SB-BR-06-22-23	SB-BR-06-34-35	SB-BR-06-49-50	SB-BR-06-49-50-2	SB-BR-06-59-60	SB-BR-06-64-65	SB-BR-07-19-20	SB-BR-07-29-30	SB-BR-07-29-30-2	SB-BR-07-39-40	SB-BR-07-39-40-2	SB-BR-07-43-44
Analyte	**CAS**	**Units**																		
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																		
Mesityl Oxide	141-79-7	ug/kg																		
Methyl Anthracene; 1-	610-48-0	ug/kg																		
Methyl Anthracene; 2-	613-12-7	ug/kg																		
Methyl Hexadecanoate	112-39-0	ug/kg																		
Methyl Phenanthrene; 2-	2531-84-2	ug/kg																		
Methyl Pyrene	2381-21-7	ug/kg																		
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg	100 NJ																	
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Naphtho[1,2-b]thiophene	234-41-3	ug/kg																		
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																		
Naphtho[2,1-b]thiophene	233-02-3	ug/kg																		
N-Methylaniline	100-61-8	ug/kg																		
Nonanoic Acid	112-05-0	ug/kg																		
Nonanol	124-19-6	ug/kg																		
Octadecanoic Acid	57-11-4	ug/kg																		
Octanoic Acid	124-07-2	ug/kg																		
Oleamide	301-02-0	ug/kg														120 NJ				
Oleic Acid	112-80-1	ug/kg											250 NJ							
Perylene	1985-5-0	ug/kg																		
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																		
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg														130 NJ				
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg														260 NJ		440 NJ		320 NJ
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg														490 NJ				
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg														160 NJ				
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																		
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																		
Quinoline, 2-Methyl-	91-63-4	ug/kg																		
Total Alkane Tics	E966796	ug/kg																		
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg																		
Tributyl acetylcitrate	77-90-7	ug/kg																		
Triphenylphosphine Oxide	791-28-6	ug/kg																		
Unknown-01	UNKNOWN-01	ug/kg	76 J		5500 BDJ		560 J		450 J	180 J	1900 BJ		2000 BJ	71 BJ	1300 BDJ	230 J		290 J		1000 BJ
Unknown-02	UNKNOWN-02	ug/kg	5300 J		9600 DJ		2200 BJ		86 BJ	72 BJ			96 J	2700 BJ		1000 BJ		940 BJ		84 J
Unknown-03	UNKNOWN-03	ug/kg	100 J		4900 DJ		100 BJ		3200 BJ	2700 BJ			260 J	120 BJ		120 J		84 J		100 J
Unknown-04	UNKNOWN-04	ug/kg			3900 DJ		200 J		150 BJ	120 BJ			130 J	410 J						
Unknown-05	UNKNOWN-05	ug/kg			4400 DJ		300 J		82 J	150 J			120 J	300 J						
Unknown-06	UNKNOWN-06	ug/kg			3700 DJ		240 J		360 J	110 J			160 J	190 J						
Unknown-07	UNKNOWN-07	ug/kg			2600 DJ		160 J		180 J	71 J			110 J	170 J						
Unknown-08	UNKNOWN-08	ug/kg			21000 DJ		150 J		150 J				100 J	190 J						
Unknown-09	UNKNOWN-09	ug/kg					150 J		150 J				1400 J	130 J						
Unknown-10	UNKNOWN-10	ug/kg					140 J		150 J					150 J						
Unknown-11	UNKNOWN-11	ug/kg					210 J		160 J					1500 J						
Unknown-12	UNKNOWN-12	ug/kg					77 J		160 J											
Unknown-13	UNKNOWN-13	ug/kg					1300 J		140 J											
Unknown-14	UNKNOWN-14	ug/kg							82 J											
Unknown-15	UNKNOWN-15	ug/kg							180 J											
Unknown-16	UNKNOWN-16	ug/kg							110 J											
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																		
Solids, Percent	SOLID	%																		
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																		

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NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10
	START_DEPTH		43	59	59	65	65	65	65	79	79	12	24	37	37	47	57	77	96
	SYS_SAMPLE_CODE		SB-BR-07-43-44-2	SB-BR-07-59-60	SB-BR-07-59-60-2	SB-BR-07-65-66	SB-BR-07-65-66-1	SB-BR-07-65-66-2	SB-BR-07-65-66-2-1	SB-BR-07-79-80	SB-BR-07-79-80-2	SB-BR-10-12-13	SB-BR-10-24-25	SB-BR-10-37-38	SB-BR-10-37-38-1	SB-BR-10-47-48	SB-BR-10-57-58	SB-BR-10-77-78	SB-BR-10-96-97
Analyte	**CAS**	**Units**																	
	Total BTEX		***14.5***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***22.20***	***9.00***	***0***	***0***	***0***
1,1,1-Trichloroethane	71-55-6	ug/kg																	
1,1-Dichloroethane	75-34-3	ug/kg																1.4 J	
1,1-Dichloroethene	75-35-4	ug/kg							0.76 J										
1,2,4-Trimethylbenzene	95-63-6	ug/kg	3 J																
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg																	
1,2-Dichloropropane	78-87-5	ug/kg																	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg																	
2-Butanone	78-93-3	ug/kg																	
2-Hexanone	591-78-6	ug/kg																	
Acetone	67-64-1	ug/kg																	
Benzene	71-43-2	ug/kg													5.9	3.2 J			
Bromomethane	74-83-9	ug/kg																	
Carbon Disulfide	75-15-0	ug/kg																	
Carbon Tetrachloride	56-23-5	ug/kg																	
Chlorobenzene	108-90-7	ug/kg																	
Chloroform	67-66-3	ug/kg																	
cis-1,2-Dichloroethene	156-59-2	ug/kg	5.1 J	1.5 J	5.6 J	6	4.8	8.7	6						15	8.2	3.4 J	5.9 J	
cis-1,3-Dichloropropene	10061-01-5	ug/kg																	
Cyclohexane	110-82-7	ug/kg																	
Ethylbenzene	100-41-4	ug/kg	3.5 J												6	2.5 J			
Isopropylbenzene	98-82-8	ug/kg																	
M, P Xylenes	179601-23-1	ug/kg	6.5 J												5.3 J	1.8 J			
Methyl Acetate	79-20-9	ug/kg																	
Methylcyclohexane	108-87-2	ug/kg																	
Methylene Chloride	75-09-2	ug/kg		2.6 J											7.1				
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg	4.5 J																
Styrene	100-42-5	ug/kg	2.7 J												2.5 J				
Toluene	108-88-3	ug/kg													5 J	1.5 J			
Trichloroethene (TCE)	79-01-6	ug/kg		1.5 J	4.3 J	3.2 J	3 J	5.3	3 J	1.2 J	1.9 J						3.4 J	5.8 J	
Vinyl Chloride	75-01-4	ug/kg																	
	Total SVOCs		***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***130.00***	***0.00***	***626.00***	***520.00***	***160.00***	***140.00***	***0.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg																	
2,4-Dinitrotoluene	121-14-2	ug/kg																	
2-Methylnaphthalene	91-57-6	ug/kg																	
4-Chloroaniline	106-47-8	ug/kg																	
4-Nitroaniline	100-01-6	ug/kg																	
Acenaphthene	83-32-9	ug/kg																	
Acenaphthylene	208-96-8	ug/kg																	
Acetophenone	98-86-2	ug/kg																	
Anthracene	120-12-7	ug/kg																	
Benzo(a)anthracene	56-55-3	ug/kg																	
Benzo(a)pyrene	50-32-8	ug/kg																	
Benzo(b)fluoranthene	205-99-2	ug/kg																	
Benzo(g,h,i)perylene	191-24-2	ug/kg																	
Benzo(k)fluoranthene	207-08-9	ug/kg																	
Biphenyl (Diphenyl)	92-52-4	ug/kg																	
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg																	
Carbazole	86-74-8	ug/kg												92 J	87 J				
Chrysene	218-01-9	ug/kg																	
Dibenz(a,h)anthracene	53-70-3	ug/kg																	
Dibenzofuran	132-64-9	ug/kg												160 J	120 J				
Fluoranthene	206-44-0	ug/kg																	
Fluorene	86-73-7	ug/kg												74 J	73 J				
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg																	
Naphthalene	91-20-3	ug/kg												130 J	120 J				
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg										130 J		170 J	120 J	160 J	140 J		
N-Nitrosodiphenylamine	86-30-6	ug/kg																	
Phenanthrene	85-01-8	ug/kg																	
Pyrene	129-00-0	ug/kg																	

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10
START_DEPTH			43	59	59	65	65	65	65	79	79	12	24	37	37	47	57	77	96	109
SYS_SAMPLE_CODE			SB-BR-07-43-44-2	SB-BR-07-59-60	SB-BR-07-59-60-2	SB-BR-07-65-66	SB-BR-07-65-66-1	SB-BR-07-65-66-2	SB-BR-07-65-66-2-1	SB-BR-07-79-80	SB-BR-07-79-80-2	SB-BR-10-12-13	SB-BR-10-24-25	SB-BR-10-37-38	SB-BR-10-37-38-1	SB-BR-10-47-48	SB-BR-10-57-58	SB-BR-10-77-78	SB-BR-10-96-97	SB-BR-10-109-110
Analyte	**CAS**	**Units**																		
Total VOC TICs			***73.70***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***6.50***	***0.00***	***820.00***	***185.70***	***56.30***	***5.80***	***0.00***	***0.00***	***0.00***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																		
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																		
.beta.-Pinene	127-91-3	ug/kg																		
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg																		
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg																		
1,2,3-Trimethyl Benzene	526-73-8	ug/kg																		
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																		
1,2-Dimethylindan	17057-82-8	ug/kg																		
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg																		
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																		
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg																		
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																		
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg																		
1-Ethyltoluene	611-14-3	ug/kg																		
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg																		
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																		
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																		
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																		
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg																		
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																		
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																		
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																		
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg																		
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg																		
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																		
1-Methylindan	767-58-8	ug/kg																		
1-Methylindene	767-59-9	ug/kg																		
1-methylnaphthalene	90-12-0	ug/kg																		
2,3-Benzofuran	271-89-6	ug/kg																		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg	16 NJ												35 NJ	15 NJ				
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Dimethylstyrene	2234-20-0	ug/kg																		
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																		
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg																		
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg	7.7 NJ													9.6 NJ				
2-METHYLINDENE	2177-47-1	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg																		
2-Methylthiophene	554-14-3	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																		
3-METHYL-1H-INDENE	767-60-2	ug/kg																		
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																		
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-METHYLTHIOPHENE	616-44-4	ug/kg																		
3-phenyl-2-propenal	104-55-2	ug/kg																		
3-Phenylbut-1-ene	934-10-1	ug/kg																		
3-Vinyltoluene	100-80-1	ug/kg																		
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																		
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																		
4-Ethyltoluene	622-96-8	ug/kg																		
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Alpha Methylstyrene	98-83-9	ug/kg																		
Azulene	275-51-4	ug/kg																		
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																		
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																		
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg																		
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																		
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																		
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																		
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg																		
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg																		
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg																		
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg																		
Benzo[b]thiophene	95-15-8	ug/kg	12 NJ																	
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg																		
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																		
Benzo[C]Thiophene	270-82-6	ug/kg													29 NJ	7.7 NJ				
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg													19 NJ					
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																		
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg																		
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10
START_DEPTH			43	59	59	65	65	65	65	79	79	12	24	37	37	47	57	77	96	109
SYS_SAMPLE_CODE			SB-BR-07-43-44-2	SB-BR-07-59-60	SB-BR-07-59-60-2	SB-BR-07-65-66	SB-BR-07-65-66-1	SB-BR-07-65-66-2	SB-BR-07-65-66-2-1	SB-BR-07-79-80	SB-BR-07-79-80-2	SB-BR-10-12-13	SB-BR-10-24-25	SB-BR-10-37-38	SB-BR-10-37-38-1	SB-BR-10-47-48	SB-BR-10-57-58	SB-BR-10-77-78	SB-BR-10-96-97	SB-BR-10-109-110
Analyte	**CAS**	**Units**																		
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																		
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																		
Cyclopropylbenzene	873-49-4	ug/kg																		
Cymene	99-87-6	ug/kg																		
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																		
Ethyl Acetate	141-78-6	ug/kg																		
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Heptanal	111-71-7	ug/kg																		
Hexanal	66-25-1	ug/kg										6.5 NJ								
Indene	95-13-6	ug/kg	38 NJ												95 NJ	24 NJ				
M-Cymene	535-77-3	ug/kg																		
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																		
Naphthalene	91-20-3	ug/kg																		
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Nonanol	124-19-6	ug/kg																		
N-Propylbenzene	103-65-1	ug/kg																		
Octanal	124-13-0	ug/kg																		
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg																		
Pentafluorobenzene	363-72-4	ug/kg																		
Phenylethyne	536-74-3	ug/kg																		
Pinene	7785-26-4	ug/kg																		
Pinene	80-56-8	ug/kg																		
Propylene	115-07-1	ug/kg																		
Pyridine	110-86-1	ug/kg																		
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg																		
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																		
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																		
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg																		
Total Alkane Tics	E966796	ug/kg																		
Unknown-01	UNKNOWN-01	ug/kg												820 J	7.7 NJ		5.8 J			
Unknown-02	UNKNOWN-02	ug/kg																		
Unknown-03	UNKNOWN-03	ug/kg																		
Unknown-04	UNKNOWN-04	ug/kg																		
Unknown-05	UNKNOWN-05	ug/kg																		
Unknown-06	UNKNOWN-06	ug/kg																		
Unknown-07	UNKNOWN-07	ug/kg																		
Unknown-08	UNKNOWN-08	ug/kg																		
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
Total SVOC TICs			***-***	***11,890***	***-***	***1,710***	***1,760***	***-***	***-***	***1,220***	***-***	***5,070***	***980***	***2,130***	***1,510***	***1,680***	***1,780***	***1,070***	***620***	***650***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																		
.gamma.-Sitosterol (01)	83-47-6	ug/kg																		
1(2H)-Isoquinolinone	491-30-5	ug/kg																		
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																		
1,2-Cyclohexanediol, Total	931-17-9	ug/kg		150 NBJ			130 NBJ													
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																		
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																		
1,3-Dimethylnaphthalene	575-41-7	ug/kg																		
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																		
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg																		
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																		
11h-Benzo[b]Fluorene	243-17-4	ug/kg																		
12-Hydroxystearic acid	106-14-9	ug/kg																		
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg																		
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																		
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																		
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg																		
1-Phenyl-1-Propyne	673-32-5	ug/kg																		
1-Phenylnaphthalene	605-02-7	ug/kg																		
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Nonadiyne	63621-15-8	ug/kg																		
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-Chlorocyclohexanol	1561-86-0	ug/kg		270 NBJ		240 NBJ	260 NBJ			230 NBJ		200 BNJ	170 BNJ	270 BNJ	180 BNJ	280 BNJ	210 BNJ	190 BNJ		130 BNJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																		

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NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10
	START_DEPTH		43	59	59	65	65	65	65	79	79	12	24	37	37	47	57	77	96	109
	SYS_SAMPLE_CODE		SB-BR-07-43-44-2	SB-BR-07-59-60	SB-BR-07-59-60-2	SB-BR-07-65-66	SB-BR-07-65-66-1	SB-BR-07-65-66-2	SB-BR-07-65-66-2-1	SB-BR-07-79-80	SB-BR-07-79-80-2	SB-BR-10-12-13	SB-BR-10-24-25	SB-BR-10-37-38	SB-BR-10-37-38-1	SB-BR-10-47-48	SB-BR-10-57-58	SB-BR-10-77-78	SB-BR-10-96-97	SB-BR-10-109-110
Analyte	**CAS**	**Units**																		
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg																		
2-Phenyl Naphthalene	612-94-2	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																		
2-Propenyl Benzene	300-57-2	ug/kg																		
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																		
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																		
3-AMINOTOLUENE	108-44-1	ug/kg																		
3-Methylcarbazole	4630-20-0	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-Picoline	108-99-6	ug/kg																		
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																		
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg																		
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg																		
4-Methylcarbazole	3770-48-7	ug/kg																		
4-Methyldibenzofuran	7320-53-8	ug/kg																		
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg																		
5(4H)-Thebenidinone	64884-40-8	ug/kg																		
5-Aminoindan	24425-40-9	ug/kg																		
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																		
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																		
6(5H)-Phenanthridinone	1015-89-0	ug/kg																		
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																		
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg																		
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																		
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg																		
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																		
9-Anthracenecarbonitrile	1210-12-4	ug/kg																		
9-Hexadecanoic Acid	486-25-9	ug/kg																		
9H-Fluoren-3-ol	6344-67-8	ug/kg																		
9H-Fluoren-9-ol	1689-64-1	ug/kg																		
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																		
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg																		
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																		
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																		
Acridine	260-94-6	ug/kg																		
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																		
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																		
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg											190 BNJ	320 BNJ				190 BNJ		180 BNJ
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																		
Benzo(a)fluorene	238-84-6	ug/kg																		
BENZO(B)CARBAZOLE	243-28-7	ug/kg																		
Benzo(c)cinnoline	230-17-1	ug/kg																		
Benzo(c)phenanthrene	195-19-7	ug/kg																		
BENZO(KL)XANTHENE	200-23-7	ug/kg																		
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																		
Benzo[b]thiophene	95-15-8	ug/kg																		
Benzo[e]pyrene	192-97-2	ug/kg																		
Benzo[f]quinoline	85-02-9	ug/kg																		
Benzo[h]quinoline	230-27-3	ug/kg																		
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																		
Beta-Sitosterol	83-46-5	ug/kg																		
Butyl citrate	77-94-1	ug/kg																		
CH3C(O)CH2CH2OH	590-90-9	ug/kg																		
Chloromethyl octadecanoate	77878-01-4	ug/kg																		
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg				130 NJ														
Cyclohexane	110-82-7	ug/kg																		
Cyclohexene	110-83-8	ug/kg																		
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																		
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																		
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg		260 NBJ		220 NBJ	240 NBJ			210 NBJ										
Dibenzothiophene (Synfuel)	132-65-0	ug/kg																		
Dimantine	124-28-7	ug/kg																		
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																		
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																		
Ethenyl-cyclobutane	2597-49-1	ug/kg																		
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Ethylidenecyclobutane	1528-21-8	ug/kg		10000 NJ																
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg																		
Hexadecanoic Acid	57-10-3	ug/kg																		
Indene	95-13-6	ug/kg																		
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10
	START_DEPTH		43	59	59	65	65	65	65	79	79	12	24	37	37	47	57	77	96	109
	SYS_SAMPLE_CODE		SB-BR-07-43-44-2	SB-BR-07-59-60	SB-BR-07-59-60-2	SB-BR-07-65-66	SB-BR-07-65-66-1	SB-BR-07-65-66-2	SB-BR-07-65-66-2-1	SB-BR-07-79-80	SB-BR-07-79-80-2	SB-BR-10-12-13	SB-BR-10-24-25	SB-BR-10-37-38	SB-BR-10-37-38-1	SB-BR-10-47-48	SB-BR-10-57-58	SB-BR-10-77-78	SB-BR-10-96-97	SB-BR-10-109-110
Analyte	**CAS**	**Units**																		
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																		
Mesityl Oxide	141-79-7	ug/kg																		
Methyl Anthracene; 1-	610-48-0	ug/kg																		
Methyl Anthracene; 2-	613-12-7	ug/kg																		
Methyl Hexadecanoate	112-39-0	ug/kg																		
Methyl Phenanthrene; 2-	2531-84-2	ug/kg																		
Methyl Pyrene	2381-21-7	ug/kg																		
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Naphtho[1,2-b]thiophene	234-41-3	ug/kg																		
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																		
Naphtho[2,1-b]thiophene	233-02-3	ug/kg																		
N-Methylaniline	100-61-8	ug/kg																		
Nonanoic Acid	112-05-0	ug/kg																		
Nonanol	124-19-6	ug/kg																		
Octadecanoic Acid	57-11-4	ug/kg																		
Octanoic Acid	124-07-2	ug/kg																		
Oleamide	301-02-0	ug/kg																		
Oleic Acid	112-80-1	ug/kg																		
Perylene	1985-5-0	ug/kg																		
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																		
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg																		
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg		210 NJ			140 NJ													
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																		
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg				100 NJ														
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																		
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																		
Quinoline, 2-Methyl-	91-63-4	ug/kg																		
Total Alkane Tics	E966796	ug/kg																		
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg																		
Tributyl acetylcitrate	77-90-7	ug/kg																		
Triphenylphosphine Oxide	791-28-6	ug/kg																		
Unknown-01	UNKNOWN-01	ug/kg		1000 BJ		890 BJ	990 BJ			780 BJ		4000 J	620 BJ	440 J	390 J	350 J	340 J	690 BJ	340 BJ	340 BJ
Unknown-02	UNKNOWN-02	ug/kg				130 J						670 BJ		1100 BJ	700 BJ	780 BJ	240 J		170 BJ	
Unknown-03	UNKNOWN-03	ug/kg										200 BJ			240 BJ	270 BJ	780 BJ		110 BJ	
Unknown-04	UNKNOWN-04	ug/kg															210 BJ			
Unknown-05	UNKNOWN-05	ug/kg																		
Unknown-06	UNKNOWN-06	ug/kg																		
Unknown-07	UNKNOWN-07	ug/kg																		
Unknown-08	UNKNOWN-08	ug/kg																		
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
Unknown-15	UNKNOWN-15	ug/kg																		
Unknown-16	UNKNOWN-16	ug/kg																		
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																		
Solids, Percent	SOLID	%												74.9						
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12
	START_DEPTH		15	23	23	43	43	43	43	53	53	63	63	70	70	101	9	19	39	49
	SYS_SAMPLE_CODE		SB-BR-11-15-16	SB-BR-11-23-24	SB-BR-11-23-24-2	SB-BR-11-43-44	SB-BR-11-43-44-1	SB-BR-11-43-44-2	SB-BR-11-43-44-2-1	SB-BR-11-53-54	SB-BR-11-53-54-2	SB-BR-11-63-64	SB-BR-11-63-64-2	SB-BR-11-70-71	SB-BR-11-70-71-2	SB-BR-11-101-102	SB-BR-12-09-10	SB-BR-12-19-20	SB-BR-12-39-40	SB-BR-12-49-50
Analyte	**CAS**	**Units**																		
Total BTEX			***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1,1,1-Trichloroethane	71-55-6	ug/kg																		
1,1-Dichloroethane	75-34-3	ug/kg																		
1,1-Dichloroethene	75-35-4	ug/kg																		
1,2,4-Trimethylbenzene	95-63-6	ug/kg																		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg																		
1,2-Dichloropropane	78-87-5	ug/kg																		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg																		
2-Butanone	78-93-3	ug/kg																		
2-Hexanone	591-78-6	ug/kg																		
Acetone	67-64-1	ug/kg																		
Benzene	71-43-2	ug/kg																		
Bromomethane	74-83-9	ug/kg																		
Carbon Disulfide	75-15-0	ug/kg																		
Carbon Tetrachloride	56-23-5	ug/kg																		
Chlorobenzene	108-90-7	ug/kg																		
Chloroform	67-66-3	ug/kg																		
cis-1,2-Dichloroethene	156-59-2	ug/kg							2 J	7.9	7.1		5.5 J							
cis-1,3-Dichloropropene	10061-01-5	ug/kg																		
Cyclohexane	110-82-7	ug/kg																		
Ethylbenzene	100-41-4	ug/kg																		
Isopropylbenzene	98-82-8	ug/kg								2 J										
M, P Xylenes	179601-23-1	ug/kg																		
Methyl Acetate	79-20-9	ug/kg																		
Methylcyclohexane	108-87-2	ug/kg																		
Methylene Chloride	75-09-2	ug/kg										2.7 J								
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg																		
Styrene	100-42-5	ug/kg																		
Toluene	108-88-3	ug/kg																		
Trichloroethene (TCE)	79-01-6	ug/kg													4.2 J					
Vinyl Chloride	75-01-4	ug/kg																		
Total SVOCs			***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg																		
2,4-Dinitrotoluene	121-14-2	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg																		
4-Chloroaniline	106-47-8	ug/kg																		
4-Nitroaniline	100-01-6	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Acenaphthylene	208-96-8	ug/kg																		
Acetophenone	98-86-2	ug/kg																		
Anthracene	120-12-7	ug/kg																		
Benzo(a)anthracene	56-55-3	ug/kg																		
Benzo(a)pyrene	50-32-8	ug/kg																		
Benzo(b)fluoranthene	205-99-2	ug/kg																		
Benzo(g,h,i)perylene	191-24-2	ug/kg																		
Benzo(k)fluoranthene	207-08-9	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg																		
Carbazole	86-74-8	ug/kg																		
Chrysene	218-01-9	ug/kg																		
Dibenz(a,h)anthracene	53-70-3	ug/kg																		
Dibenzofuran	132-64-9	ug/kg																		
Fluoranthene	206-44-0	ug/kg																		
Fluorene	86-73-7	ug/kg																		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg																		
Naphthalene	91-20-3	ug/kg																		
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg																		
N-Nitrosodiphenylamine	86-30-6	ug/kg																		
Phenanthrene	85-01-8	ug/kg																		
Pyrene	129-00-0	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12
START_DEPTH			15	23	23	43	43	43	43	53	53	63	63	70	70	101	9	19	39	49
SYS_SAMPLE_CODE			SB-BR-11-15-16	SB-BR-11-23-24	SB-BR-11-23-24-2	SB-BR-11-43-44	SB-BR-11-43-44-1	SB-BR-11-43-44-2	SB-BR-11-43-44-2-1	SB-BR-11-53-54	SB-BR-11-53-54-2	SB-BR-11-63-64	SB-BR-11-63-64-2	SB-BR-11-70-71	SB-BR-11-70-71-2	SB-BR-11-101-102	SB-BR-12-09-10	SB-BR-12-19-20	SB-BR-12-39-40	SB-BR-12-49-50
Analyte	**CAS**	**Units**																		
Total VOC TICs			***0.00***	***1.16***	***11.31***	***1.01***	***3.62***	***2.71***	***2.35***	***7.58***	***3.68***	***1.31***	***1.98***	***0.80***	***1.69***	***0.00***	***5.40***	***0.00***	***0.00***	***4.50***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																		
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																		
.beta.-Pinene	127-91-3	ug/kg																		
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg																		
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg																		
1,2,3-Trimethyl Benzene	526-73-8	ug/kg																		
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																		
1,2-Dimethylindan	17057-82-8	ug/kg																		
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg																		
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																		
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg											0.074 NJ							
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																		
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg																		
1-Ethyltoluene	611-14-3	ug/kg																		
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg																		
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																		
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																		
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																		
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg																		
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																		
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																		
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																		
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg																		
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg																		
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																		
1-Methylindan	767-58-8	ug/kg								0.36 NJ										
1-Methylindene	767-59-9	ug/kg																		
1-methylnaphthalene	90-12-0	ug/kg																		
2,3-Benzofuran	271-89-6	ug/kg																		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg				0.13 NJ	0.31 NJ	0.17 NJ		0.19 NJ										
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Dimethylstyrene	2234-20-0	ug/kg																		
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																		
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg																		
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg					0.22 NJ		0.18 NJ	0.83 NJ	0.25 NJ	0.067 NJ	0.11 NJ							
2-METHYLINDENE	2177-47-1	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg																		
2-Methylthiophene	554-14-3	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																		
3-METHYL-1H-INDENE	767-60-2	ug/kg																		
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																		
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg						0.18 NJ												
3-METHYLTHIOPHENE	616-44-4	ug/kg																		
3-phenyl-2-propenal	104-55-2	ug/kg							0.077 NJ											
3-Phenylbut-1-ene	934-10-1	ug/kg																		
3-Vinyltoluene	100-80-1	ug/kg																		
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																		
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																		
4-Ethyltoluene	622-96-8	ug/kg																		
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Alpha Methylstyrene	98-83-9	ug/kg																		
Azulene	275-51-4	ug/kg																		
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																		
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																		
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg																		
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																		
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																		
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																		
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg																		
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg																		
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg																		
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg																		
Benzo[b]thiophene	95-15-8	ug/kg						0.13 NJ	0.21 NJ											
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg																		
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																		
Benzo[C]Thiophene	270-82-6	ug/kg				0.066 NJ	0.2 NJ			3 NJ	1.3 NJ									
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg				0.077 NJ		0.12 NJ			0.3 NJ		0.17 NJ							
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																		
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg																		
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12
	START_DEPTH		15	23	23	43	43	43	43	53	53	63	63	70	70	101	9	19	39	49
	SYS_SAMPLE_CODE		SB-BR-11-15-16	SB-BR-11-23-24	SB-BR-11-23-24-2	SB-BR-11-43-44	SB-BR-11-43-44-1	SB-BR-11-43-44-2	SB-BR-11-43-44-2-1	SB-BR-11-53-54	SB-BR-11-53-54-2	SB-BR-11-63-64	SB-BR-11-63-64-2	SB-BR-11-70-71	SB-BR-11-70-71-2	SB-BR-11-101-102	SB-BR-12-09-10	SB-BR-12-19-20	SB-BR-12-39-40	SB-BR-12-49-50
Analyte	**CAS**	**Units**																		
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																		
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																		
Cyclopropylbenzene	873-49-4	ug/kg																		
Cymene	99-87-6	ug/kg																		
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																		
Ethyl Acetate	141-78-6	ug/kg		0.27 NJ	0.91 NJ		1.2 NJ	1.4 NJ		0.7 NJ		0.38 NJ								
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Heptanal	111-71-7	ug/kg			0.17 NJ															
Hexanal	66-25-1	ug/kg			6.1 NJ															
Indene	95-13-6	ug/kg					0.5 NJ		0.45 NJ	0.51 NJ	0.12 NJ									
M-Cymene	535-77-3	ug/kg																		
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																		
Naphthalene	91-20-3	ug/kg																		
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Nonanol	124-19-6	ug/kg																		
N-Propylbenzene	103-65-1	ug/kg																		
Octanal	124-13-0	ug/kg			0.4 NJ															
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg																		
Pentafluorobenzene	363-72-4	ug/kg																		
Phenylethyne	536-74-3	ug/kg																		
Pinene	7785-26-4	ug/kg																		
Pinene	80-56-8	ug/kg																		
Propylene	115-07-1	ug/kg																		
Pyridine	110-86-1	ug/kg																		
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg																		
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																		
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																		
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg																		
Total Alkane Tics	E966796	ug/kg													0.55 J					
Unknown-01	UNKNOWN-01	ug/kg		0.087 J	0.092 J	0.077 J	0.12 J	0.11 J	0.12 J	0.07 J	0.085 J	0.09 J	0.074 J	0.079 J	0.18 BJ		5.4 J			4.5 J
Unknown-02	UNKNOWN-02	ug/kg		0.15 J	0.11 J	0.17 J	0.19 BJ	0.053 J	0.18 BJ	0.14 J	0.19 J	0.13 J	0.2 BJ	0.12 J	0.076 J					
Unknown-03	UNKNOWN-03	ug/kg		0.28 J	0.26 J	0.11 J	0.084 J	0.14 BJ	0.09 J	0.15 NJ	0.12 J	0.067 J	0.25 J	0.09 J	0.15 J					
Unknown-04	UNKNOWN-04	ug/kg		0.37 J	0.2 J	0.19 J	0.072 NJ	0.053 J	0.09 J	0.53 NJ	0.13 J	0.067 J	0.17 J	0.15 J	0.73 J					
Unknown-05	UNKNOWN-05	ug/kg			0.11 J	0.19 BJ	0.31 J	0.063 J	0.3 NJ	0.11 J	0.073 J	0.17 J	0.22 J	0.36 J						
Unknown-06	UNKNOWN-06	ug/kg			0.26 J		0.41 J	0.15 J	0.23 J	0.12 J	0.5 J	0.34 J	0.71 J							
Unknown-07	UNKNOWN-07	ug/kg			0.58 J			0.14 J	0.42 BJ	0.41 J	0.61 J									
Unknown-08	UNKNOWN-08	ug/kg			0.092 J					0.058 J										
Unknown-09	UNKNOWN-09	ug/kg			0.092 J					0.4 J										
Unknown-10	UNKNOWN-10	ug/kg			0.11 J															
Unknown-11	UNKNOWN-11	ug/kg			0.68 J															
Unknown-12	UNKNOWN-12	ug/kg			0.48 J															
Unknown-13	UNKNOWN-13	ug/kg			0.11 J															
Unknown-14	UNKNOWN-14	ug/kg			0.55 BJ															
Total SVOC TICs			***7,186***	***4,741***	***-***	***5,079***	***5,787***	***-***	***-***	***7,187***	***-***	***5,048***	***-***	***4,864***	***-***	***2,570***	***1,500***	***1,950***	***1,490***	***1,950***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																		
.gamma.-Sitosterol (01)	83-47-6	ug/kg																		
1(2H)-Isoquinolinone	491-30-5	ug/kg																		
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																		
1,2-Cyclohexanediol, Total	931-17-9	ug/kg																		
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																		
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																		
1,3-Dimethylnaphthalene	575-41-7	ug/kg																		
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																		
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg																		
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																		
11h-Benzo[b]Fluorene	243-17-4	ug/kg																		
12-Hydroxystearic acid	106-14-9	ug/kg																		
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg																		
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																		
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																		
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg																		
1-Phenyl-1-Propyne	673-32-5	ug/kg																		
1-Phenylnaphthalene	605-02-7	ug/kg																		
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Nonadiyne	63621-15-8	ug/kg																		
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-Chlorocyclohexanol	1561-86-0	ug/kg	140 BNJ	110 NBJ		110 NBJ	120 NBJ			110 BNJ		110 NBJ		120 NBJ		70 NJ	170 BNJ	150 BNJ	150 BNJ	230 BNJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																		280 NJ

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12
	START_DEPTH		15	23	23	43	43	43	43	53	53	63	63	70	70	101	9	19	39	49
	SYS_SAMPLE_CODE		SB-BR-11-15-16	SB-BR-11-23-24	SB-BR-11-23-24-2	SB-BR-11-43-44	SB-BR-11-43-44-1	SB-BR-11-43-44-2	SB-BR-11-43-44-2-1	SB-BR-11-53-54	SB-BR-11-53-54-2	SB-BR-11-63-64	SB-BR-11-63-64-2	SB-BR-11-70-71	SB-BR-11-70-71-2	SB-BR-11-101-102	SB-BR-12-09-10	SB-BR-12-19-20	SB-BR-12-39-40	SB-BR-12-49-50
Analyte	**CAS**	**Units**																		
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg																		
2-Phenyl Naphthalene	612-94-2	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																		
2-Propenyl Benzene	300-57-2	ug/kg																		
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																		
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																		
3-AMINOTOLUENE	108-44-1	ug/kg																		
3-Methylcarbazole	4630-20-0	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-Picoline	108-99-6	ug/kg																		
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																		
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg																		
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg																		
4-Methylcarbazole	3770-48-7	ug/kg																		
4-Methyldibenzofuran	7320-53-8	ug/kg																		
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg																		
5(4H)-Thebenidinone	64884-40-8	ug/kg																		
5-Aminoindan	24425-40-9	ug/kg																		
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																		
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																		
6(5H)-Phenanthridinone	1015-89-0	ug/kg																		
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																		
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg															270 NJ	170 NJ	270 NJ	
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																		
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg																		
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																		
9-Anthracenecarbonitrile	1210-12-4	ug/kg																		
9-Hexadecanoic Acid	486-25-9	ug/kg																		
9H-Fluoren-3-ol	6344-67-8	ug/kg																		
9H-Fluoren-9-ol	1689-64-1	ug/kg																		
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																		
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg																		
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																		
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																		
Acridine	260-94-6	ug/kg																		
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																		
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																		
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg												110 NBJ						
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																		
Benzo(a)fluorene	238-84-6	ug/kg																		
BENZO(B)CARBAZOLE	243-28-7	ug/kg																		
Benzo(c)cinnoline	230-17-1	ug/kg																		
Benzo(c)phenanthrene	195-19-7	ug/kg																		
BENZO(KL)XANTHENE	200-23-7	ug/kg																		
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																		
Benzo[b]thiophene	95-15-8	ug/kg								630 NJ										
Benzo[e]pyrene	192-97-2	ug/kg																		
Benzo[f]quinoline	85-02-9	ug/kg																		
Benzo[h]quinoline	230-27-3	ug/kg																		
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg								93 NJ										
Beta-Sitosterol	83-46-5	ug/kg																		
Butyl citrate	77-94-1	ug/kg																		
CH3C(O)CH2CH2OH	590-90-9	ug/kg																		
Chloromethyl octadecanoate	77878-01-4	ug/kg																		
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg																		
Cyclohexane	110-82-7	ug/kg																		
Cyclohexene	110-83-8	ug/kg																		
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																		
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																		
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg	170 BNJ	140 BNJ		170 BNJ	170 BNJ			170 BNJ		160 BNJ		150 BNJ						
Dibenzothiophene (Synfuel)	132-65-0	ug/kg																		
Dimantine	124-28-7	ug/kg																		
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																		
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																		
Ethenyl-cyclobutane	2597-49-1	ug/kg																		
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Ethylidenecyclobutane	1528-21-8	ug/kg																		
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg																		
Hexadecanoic Acid	57-10-3	ug/kg																		
Indene	95-13-6	ug/kg																		
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12
	START_DEPTH		15	23	23	43	43	43	43	53	53	63	63	70	70	101	9	19	39	49
	SYS_SAMPLE_CODE		SB-BR-11-15-16	SB-BR-11-23-24	SB-BR-11-23-24-2	SB-BR-11-43-44	SB-BR-11-43-44-1	SB-BR-11-43-44-2	SB-BR-11-43-44-2-1	SB-BR-11-53-54	SB-BR-11-53-54-2	SB-BR-11-63-64	SB-BR-11-63-64-2	SB-BR-11-70-71	SB-BR-11-70-71-2	SB-BR-11-101-102	SB-BR-12-09-10	SB-BR-12-19-20	SB-BR-12-39-40	SB-BR-12-49-50
Analyte	**CAS**	**Units**																		
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																		
Mesityl Oxide	141-79-7	ug/kg																		
Methyl Anthracene; 1-	610-48-0	ug/kg																		
Methyl Anthracene; 2-	613-12-7	ug/kg																		
Methyl Hexadecanoate	112-39-0	ug/kg																		
Methyl Phenanthrene; 2-	2531-84-2	ug/kg																		
Methyl Pyrene	2381-21-7	ug/kg																		
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Naphtho[1,2-b]thiophene	234-41-3	ug/kg																		
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																		
Naphtho[2,1-b]thiophene	233-02-3	ug/kg																		
N-Methylaniline	100-61-8	ug/kg																		
Nonanoic Acid	112-05-0	ug/kg																		
Nonanol	124-19-6	ug/kg																		
Octadecanoic Acid	57-11-4	ug/kg																		
Octanoic Acid	124-07-2	ug/kg																		
Oleamide	301-02-0	ug/kg																		
Oleic Acid	112-80-1	ug/kg																		
Perylene	1985-5-0	ug/kg																		
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																		
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg																		
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg																		
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																		
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg																		
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																		
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																		
Quinoline, 2-Methyl-	91-63-4	ug/kg																		
Total Alkane Tics	E966796	ug/kg																		
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg																		
Tributyl acetylcitrate	77-90-7	ug/kg																		
Triphenylphosphine Oxide	791-28-6	ug/kg	98 NBJ	92 NBJ		89 NBJ	87 NBJ			93 NBJ		80 BNJ		84 NBJ						
Unknown-01	UNKNOWN-01	ug/kg	79 BJ	4300 BJ		4600 BJ	5300 BJ			5500 BJ		4600 BJ		4400 BJ		2500 BJ	870 BJ	650 BJ	910 BJ	1100 BJ
Unknown-02	UNKNOWN-02	ug/kg	6100 BJ	99 BJ		110 BJ	110 BJ			100 BJ		98 BJ					190 J	780 BJ	160 J	340 BJ
Unknown-03	UNKNOWN-03	ug/kg	79 BJ							340 J								200 J		
Unknown-04	UNKNOWN-04	ug/kg	520 J							75 NJ										
Unknown-05	UNKNOWN-05	ug/kg								76 J										
Unknown-06	UNKNOWN-06	ug/kg																		
Unknown-07	UNKNOWN-07	ug/kg																		
Unknown-08	UNKNOWN-08	ug/kg																		
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
Unknown-15	UNKNOWN-15	ug/kg																		
Unknown-16	UNKNOWN-16	ug/kg																		
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																		
Solids, Percent	SOLID	%				79.4														
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																		

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NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13
	START_DEPTH		59	69	79	89	99	114	9	9	19	29	39	49	49	59	59	69	69	79
	SYS_SAMPLE_CODE		SB-BR-12-59-60	SB-BR-12-69-70	SB-BR-12-79-80	SB-BR-12-89-90	SB-BR-12-99-100	SB-BR-12-114-115	SB-BR-13-09-10	SB-BR-13-09-10-2	SB-BR-13-19-20	SB-BR-13-29-30	SB-BR-13-39-40	SB-BR-13-49-50	SB-BR-13-49-50-2	SB-BR-13-59-60	SB-BR-13-59-60-2	SB-BR-13-69-70	SB-BR-13-69-70-2	SB-BR-13-79-80
Analyte	**CAS**	**Units**																		
Total BTEX			***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***6.30***	***0***	***0***	***0***	***0***	***0***	***0***
1,1,1-Trichloroethane	71-55-6	ug/kg																		
1,1-Dichloroethane	75-34-3	ug/kg				1.2 J														
1,1-Dichloroethene	75-35-4	ug/kg																		
1,2,4-Trimethylbenzene	95-63-6	ug/kg																		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg																		
1,2-Dichloropropane	78-87-5	ug/kg																		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg																		
2-Butanone	78-93-3	ug/kg								24										
2-Hexanone	591-78-6	ug/kg																		
Acetone	67-64-1	ug/kg							31	100				6.9 J		6.9				
Benzene	71-43-2	ug/kg												6.3						
Bromomethane	74-83-9	ug/kg																		
Carbon Disulfide	75-15-0	ug/kg																		
Carbon Tetrachloride	56-23-5	ug/kg																		
Chlorobenzene	108-90-7	ug/kg																		
Chloroform	67-66-3	ug/kg																		
cis-1,2-Dichloroethene	156-59-2	ug/kg												15	13					
cis-1,3-Dichloropropene	10061-01-5	ug/kg																		
Cyclohexane	110-82-7	ug/kg																		
Ethylbenzene	100-41-4	ug/kg																		
Isopropylbenzene	98-82-8	ug/kg												0.97 J	0.85 J					
M, P Xylenes	179601-23-1	ug/kg																		
Methyl Acetate	79-20-9	ug/kg							13											
Methylcyclohexane	108-87-2	ug/kg																		
Methylene Chloride	75-09-2	ug/kg			6.1															
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg																		
Styrene	100-42-5	ug/kg																		
Toluene	108-88-3	ug/kg																		
Trichloroethene (TCE)	79-01-6	ug/kg																		
Vinyl Chloride	75-01-4	ug/kg																		
Total SVOCs			***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg																		
2,4-Dinitrotoluene	121-14-2	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg																		
4-Chloroaniline	106-47-8	ug/kg																		
4-Nitroaniline	100-01-6	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Acenaphthylene	208-96-8	ug/kg																		
Acetophenone	98-86-2	ug/kg																		
Anthracene	120-12-7	ug/kg																		
Benzo(a)anthracene	56-55-3	ug/kg																		
Benzo(a)pyrene	50-32-8	ug/kg																		
Benzo(b)fluoranthene	205-99-2	ug/kg																		
Benzo(g,h,i)perylene	191-24-2	ug/kg																		
Benzo(k)fluoranthene	207-08-9	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg																		
Carbazole	86-74-8	ug/kg																		
Chrysene	218-01-9	ug/kg																		
Dibenz(a,h)anthracene	53-70-3	ug/kg																		
Dibenzofuran	132-64-9	ug/kg																		
Fluoranthene	206-44-0	ug/kg																		
Fluorene	86-73-7	ug/kg																		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg																		
Naphthalene	91-20-3	ug/kg																		
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg																		
N-Nitrosodiphenylamine	86-30-6	ug/kg																		
Phenanthrene	85-01-8	ug/kg																		
Pyrene	129-00-0	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13
START_DEPTH			59	69	79	89	99	114	9	9	19	29	39	49	49	59	59	69	69	79
SYS_SAMPLE_CODE			SB-BR-12-59-60	SB-BR-12-69-70	SB-BR-12-79-80	SB-BR-12-89-90	SB-BR-12-99-100	SB-BR-12-114-115	SB-BR-13-09-10	SB-BR-13-09-10-2	SB-BR-13-19-20	SB-BR-13-29-30	SB-BR-13-39-40	SB-BR-13-49-50	SB-BR-13-49-50-2	SB-BR-13-59-60	SB-BR-13-59-60-2	SB-BR-13-69-70	SB-BR-13-69-70-2	SB-BR-13-79-80
Analyte	**CAS**	**Units**																		
Total VOC TICs			***4.90***	***4.50***	***0.00***	***0.00***	***0.00***	***0.00***	***5.60***	***0.00***	***27.00***	***37.00***	***41.00***	***144.90***	***74.60***	***81.90***	***5.40***	***0.00***	***19.00***	***0.00***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg													8.1 NJ					
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																		
.beta.-Pinene	127-91-3	ug/kg																		
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg																		
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg																		
1,2,3-Trimethyl Benzene	526-73-8	ug/kg																		
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																		
1,2-Dimethylindan	17057-82-8	ug/kg																		
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg																		
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																		
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg																		
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																		
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg																		
1-Ethyltoluene	611-14-3	ug/kg																		
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg																		
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																		
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																		
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																		
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg																		
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																		
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																		
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																		
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg																		
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg																		
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																		
1-Methylindan	767-58-8	ug/kg																		
1-Methylindene	767-59-9	ug/kg																		
1-methylnaphthalene	90-12-0	ug/kg																		
2,3-Benzofuran	271-89-6	ug/kg																		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg												21 NJ	9.8 NJ	4.9 NJ				
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Dimethylstyrene	2234-20-0	ug/kg																		
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																		
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg																		
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg																		
2-METHYLBENZOFURAN	4265-25-2	ug/kg												24 NJ	16 NJ					
2-METHYLINDENE	2177-47-1	ug/kg																		
2-Methylnaphthalene	91-57-6	ug/kg																		
2-Methylthiophene	554-14-3	ug/kg																		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																		
3-METHYL-1H-INDENE	767-60-2	ug/kg																		
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																		
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg																		
3-Methylphenylacetylene	766-82-5	ug/kg																		
3-METHYLTHIOPHENE	616-44-4	ug/kg																		
3-phenyl-2-propenal	104-55-2	ug/kg																		
3-Phenylbut-1-ene	934-10-1	ug/kg												11 NJ						
3-Vinyltoluene	100-80-1	ug/kg																		
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																		
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																		
4-Ethyltoluene	622-96-8	ug/kg																		
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																		
Acenaphthene	83-32-9	ug/kg																		
Alpha Methylstyrene	98-83-9	ug/kg																		
Azulene	275-51-4	ug/kg																		
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																		
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																		
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg																		
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																		
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																		
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																		
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg																		
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg																		
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg																		
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg																		
Benzo[b]thiophene	95-15-8	ug/kg														3.8 NJ				
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg																		
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																		
Benzo[C]Thiophene	270-82-6	ug/kg													19 NJ					
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg													7.7 NJ	8.3 NJ	5.4 NJ			
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																		
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg																		
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																		
Biphenyl (Diphenyl)	92-52-4	ug/kg																		
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-12 59	SB-BR-12 69	SB-BR-12 79	SB-BR-12 89	SB-BR-12 99	SB-BR-12 114	SB-BR-13 9	SB-BR-13 9	SB-BR-13 19	SB-BR-13 29	SB-BR-13 39	SB-BR-13 49	SB-BR-13 49	SB-BR-13 59	SB-BR-13 59	SB-BR-13 69	SB-BR-13 69	SB-BR-13 79
	START_DEPTH																			
	SYS_SAMPLE_CODE		SB-BR-12-59-60	SB-BR-12-69-70	SB-BR-12-79-80	SB-BR-12-89-90	SB-BR-12-99-100	SB-BR-12-114-115	SB-BR-13-09-10	SB-BR-13-09-10-2	SB-BR-13-19-20	SB-BR-13-29-30	SB-BR-13-39-40	SB-BR-13-49-50	SB-BR-13-49-50-2	SB-BR-13-59-60	SB-BR-13-59-60-2	SB-BR-13-69-70	SB-BR-13-69-70-2	SB-BR-13-79-80
Analyte	**CAS**	**Units**																		
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg																		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg												25 NJ						
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																		
Cyclopropylbenzene	873-49-4	ug/kg																		
Cymene	99-87-6	ug/kg																		
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																		
Ethyl Acetate	141-78-6	ug/kg									27 NJ	37 NJ	41 NJ			59 NJ				
Ethyl Naphthalene; 2-	939-27-5	ug/kg																		
Heptanal	111-71-7	ug/kg																		
Hexanal	66-25-1	ug/kg																		
Indene	95-13-6	ug/kg												54 NJ	14 NJ	5.9 NJ				
M-Cymene	535-77-3	ug/kg																		
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																		
Naphthalene	91-20-3	ug/kg																		
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Nonanol	124-19-6	ug/kg																		
N-Propylbenzene	103-65-1	ug/kg																		
Octanal	124-13-0	ug/kg																		
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg																		
Pentafluorobenzene	363-72-4	ug/kg																		
Phenylethyne	536-74-3	ug/kg																		
Pinene	7785-26-4	ug/kg																		
Pinene	80-56-8	ug/kg																		
Propylene	115-07-1	ug/kg																		
Pyridine	110-86-1	ug/kg																		
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg																		
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																		
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																		
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg																		
Total Alkane Tics	E966796	ug/kg																		
Unknown-01	UNKNOWN-01	ug/kg	4.9 J	4.5 J					5.6 J					9.9 NJ					9.6 J	
Unknown-02	UNKNOWN-02	ug/kg																	9.4 J	
Unknown-03	UNKNOWN-03	ug/kg																		
Unknown-04	UNKNOWN-04	ug/kg																		
Unknown-05	UNKNOWN-05	ug/kg																		
Unknown-06	UNKNOWN-06	ug/kg																		
Unknown-07	UNKNOWN-07	ug/kg																		
Unknown-08	UNKNOWN-08	ug/kg																		
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
Total SVOC TICs			***2,095***	***1,580***	***2,090***	***1,620***	***1,190***	***2,000***	***4,930***	***-***	***4,691***	***6,124***	***4,994***	***6,336***	***-***	***6,024***	***-***	***6,240***	***-***	***5,507***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																		
.gamma.-Sitosterol (01)	83-47-6	ug/kg																		
1(2H)-Isoquinolinone	491-30-5	ug/kg																		
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																		
1,2-Cyclohexanediol, Total	931-17-9	ug/kg																		
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																		
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																		
1,3-Dimethylnaphthalene	575-41-7	ug/kg																		
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																		
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg																		
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																		
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																		
11h-Benzo[b]Fluorene	243-17-4	ug/kg																		
12-Hydroxystearic acid	106-14-9	ug/kg																		
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																		
1-Ethyl Naphthalene	1127-76-0	ug/kg																		
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg																		
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																		
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																		
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg																		
1-Phenyl-1-Propyne	673-32-5	ug/kg																		
1-Phenylnaphthalene	605-02-7	ug/kg																		
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																		
2,4-Nonadiyne	63621-15-8	ug/kg																		
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg																		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																		
2-Chlorocyclohexanol	1561-86-0	ug/kg	220 BNJ	210 BNJ	240 BNJ	270 BNJ	190 BNJ	200 BNJ	110 BNJ		120 BNJ	130 BNJ	120 BNJ	140 BNJ		130 BNJ		140 BNJ		120 BNJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-12	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13
START_DEPTH			59	69	79	89	99	114	9	9	19	29	39	49	49	59	59	69	69
SYS_SAMPLE_CODE			SB-BR-12-59-60	SB-BR-12-69-70	SB-BR-12-79-80	SB-BR-12-89-90	SB-BR-12-99-100	SB-BR-12-114-115	SB-BR-13-09-10	SB-BR-13-09-10-2	SB-BR-13-19-20	SB-BR-13-29-30	SB-BR-13-39-40	SB-BR-13-49-50	SB-BR-13-49-50-2	SB-BR-13-59-60	SB-BR-13-59-60-2	SB-BR-13-69-70	SB-BR-13-69-70-2	SB-BR-13-79-80
Analyte	**CAS**	**Units**																	
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																	
2-METHYLBENZOFURAN	4265-25-2	ug/kg																	
2-Phenyl Naphthalene	612-94-2	ug/kg																	
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																	
2-Propenyl Benzene	300-57-2	ug/kg																	
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																	
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																	
3-AMINOTOLUENE	108-44-1	ug/kg																	
3-Methylcarbazole	4630-20-0	ug/kg																	
3-Methylphenylacetylene	766-82-5	ug/kg																	
3-Picoline	108-99-6	ug/kg																	
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																	
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg																	
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg																	
4-Methylcarbazole	3770-48-7	ug/kg																	
4-Methyldibenzofuran	7320-53-8	ug/kg																	
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg																	
5(4H)-Thebenidinone	64884-40-8	ug/kg																	
5-Aminoindan	24425-40-9	ug/kg																	
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																	
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																	
6(5H)-Phenanthridinone	1015-89-0	ug/kg																	
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																	
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg	270 NJ		210 NJ	250 NJ													
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																	
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg																	
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																	
9-Anthracenecarbonitrile	1210-12-4	ug/kg																	
9-Hexadecanoic Acid	486-25-9	ug/kg																	
9H-Fluoren-3-ol	6344-67-8	ug/kg																	
9H-Fluoren-9-ol	1689-64-1	ug/kg																	
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																	
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg																	
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																	
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																	
Acridine	260-94-6	ug/kg																	
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																	
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																	
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg																	
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																	
Benzo(a)fluorene	238-84-6	ug/kg																	
BENZO(B)CARBAZOLE	243-28-7	ug/kg																	
Benzo(c)cinnoline	230-17-1	ug/kg																	
Benzo(c)phenanthrene	195-19-7	ug/kg																	
BENZO(KL)XANTHENE	200-23-7	ug/kg																	
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																	
Benzo[b]thiophene	95-15-8	ug/kg																	
Benzo[e]pyrene	192-97-2	ug/kg																	
Benzo[f]quinoline	85-02-9	ug/kg																	
Benzo[h]quinoline	230-27-3	ug/kg																	
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																	
Beta-Sitosterol	83-46-5	ug/kg							140 NJ										
Butyl citrate	77-94-1	ug/kg																	
CH3C(O)CH2CH2OH	590-90-9	ug/kg																	
Chloromethyl octadecanoate	77878-01-4	ug/kg																	
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg	95 BNJ																
Cyclohexane	110-82-7	ug/kg																	
Cyclohexene	110-83-8	ug/kg																	
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																	
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																	
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																	
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg																	
Dibenzothiophene (Synfuel)	132-65-0	ug/kg																	
Dimantine	124-28-7	ug/kg																	
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																	
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																	
Ethenyl-cyclobutane	2597-49-1	ug/kg																	
Ethyl Naphthalene; 2-	939-27-5	ug/kg																	
Ethylidenecyclobutane	1528-21-8	ug/kg																	
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg																	
Hexadecanoic Acid	57-10-3	ug/kg																	
Indene	95-13-6	ug/kg																	
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																	

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-12 59	SB-BR-12 69	SB-BR-12 79	SB-BR-12 89	SB-BR-12 99	SB-BR-12 114	SB-BR-13 9	SB-BR-13 9	SB-BR-13 19	SB-BR-13 29	SB-BR-13 39	SB-BR-13 49	SB-BR-13 49	SB-BR-13 59	SB-BR-13 59	SB-BR-13 69	SB-BR-13 69	SB-BR-13 79
	START_DEPTH																			
	SYS_SAMPLE_CODE		SB-BR-12-59-60	SB-BR-12-69-70	SB-BR-12-79-80	SB-BR-12-89-90	SB-BR-12-99-100	SB-BR-12-114-115	SB-BR-13-09-10	SB-BR-13-09-10-2	SB-BR-13-19-20	SB-BR-13-29-30	SB-BR-13-39-40	SB-BR-13-49-50	SB-BR-13-49-50-2	SB-BR-13-59-60	SB-BR-13-59-60-2	SB-BR-13-69-70	SB-BR-13-69-70-2	SB-BR-13-79-80
Analyte	**CAS**	**Units**																		
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																		
Mesityl Oxide	141-79-7	ug/kg																		
Methyl Anthracene; 1-	610-48-0	ug/kg																		
Methyl Anthracene; 2-	613-12-7	ug/kg																		
Methyl Hexadecanoate	112-39-0	ug/kg																		
Methyl Phenanthrene; 2-	2531-84-2	ug/kg																		
Methyl Pyrene	2381-21-7	ug/kg																		
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg																		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																		
Naphtho[1,2-b]thiophene	234-41-3	ug/kg																		
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																		
Naphtho[2,1-b]thiophene	233-02-3	ug/kg																		
N-Methylaniline	100-61-8	ug/kg																		
Nonanoic Acid	112-05-0	ug/kg																		
Nonanol	124-19-6	ug/kg																		
Octadecanoic Acid	57-11-4	ug/kg																		
Octanoic Acid	124-07-2	ug/kg																		
Oleamide	301-02-0	ug/kg																		
Oleic Acid	112-80-1	ug/kg																		
Perylene	1985-5-0	ug/kg																		
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																		
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg																		
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg																		
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																		
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg																		
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																		
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																		
Quinoline, 2-Methyl-	91-63-4	ug/kg																		
Total Alkane Tics	E966796	ug/kg																		
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg																		
Tributyl acetylcitrate	77-90-7	ug/kg																		
Triphenylphosphine Oxide	791-28-6	ug/kg																		
Unknown-01	UNKNOWN-01	ug/kg	1300 BJ	1200 BJ	240 J	1100 BJ	650 BJ	1400 BJ	180 J		71 BJ	94 BJ	74 BJ	96 BJ		94 BJ		100 BJ		87 BJ
Unknown-02	UNKNOWN-02	ug/kg	210 J	170 J	1400 BJ		160 J	200 J	4500 BJ		4500 BJ	5900 BJ	4800 BJ	6100 BJ		5800 BJ		6000 BJ		5300 BJ
Unknown-03	UNKNOWN-03	ug/kg					190 J	200 J												
Unknown-04	UNKNOWN-04	ug/kg																		
Unknown-05	UNKNOWN-05	ug/kg																		
Unknown-06	UNKNOWN-06	ug/kg																		
Unknown-07	UNKNOWN-07	ug/kg																		
Unknown-08	UNKNOWN-08	ug/kg																		
Unknown-09	UNKNOWN-09	ug/kg																		
Unknown-10	UNKNOWN-10	ug/kg																		
Unknown-11	UNKNOWN-11	ug/kg																		
Unknown-12	UNKNOWN-12	ug/kg																		
Unknown-13	UNKNOWN-13	ug/kg																		
Unknown-14	UNKNOWN-14	ug/kg																		
Unknown-15	UNKNOWN-15	ug/kg																		
Unknown-16	UNKNOWN-16	ug/kg																		
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																		
Solids, Percent	SOLID	%																		
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16
	START_DEPTH		89	89	99	109	117	1	8	15	25	25	34	44	54	58	66	74
	SYS_SAMPLE_CODE		SB-BR-13-89-90	SB-BR-13-89-90-2	SB-BR-13-99-100	SB-BR-13-109-110	SB-BR-13-117-118	SB-BR-LIF16-01-02	SB-BR-LIF16-08-09	SB-BR-LIF16-15-16	SB-BR-LIF16-25-26	SB-BR-LIF16-25-26-1	SB-BR-LIF16-34-35	SB-BR-LIF16-44-45	SB-BR-LIF16-54-55	SB-BR-LIF16-58-59	SB-BR-LIF16-66-67	SB-BR-LIF16-74-75
Analyte	**CAS**	**Units**																
Total BTEX			***0***	***0***	***0***	***0***	***0***	***0***	***14.40***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***1.10***
1,1,1-Trichloroethane	71-55-6	ug/kg																3.5 J
1,1-Dichloroethane	75-34-3	ug/kg																5.1 J
1,1-Dichloroethene	75-35-4	ug/kg																
1,2,4-Trimethylbenzene	95-63-6	ug/kg						1.3 J										
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg																
1,2-Dichloropropane	78-87-5	ug/kg																
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg																
2-Butanone	78-93-3	ug/kg							9.5 J									
2-Hexanone	591-78-6	ug/kg																
Acetone	67-64-1	ug/kg						36	39									18
Benzene	71-43-2	ug/kg																1.1 J+
Bromomethane	74-83-9	ug/kg																
Carbon Disulfide	75-15-0	ug/kg																3.3 J
Carbon Tetrachloride	56-23-5	ug/kg																
Chlorobenzene	108-90-7	ug/kg																
Chloroform	67-66-3	ug/kg						5.9										
cis-1,2-Dichloroethene	156-59-2	ug/kg	4.1	4.4 J							3.7 J	2.6 J	4.1 J	8.9	12			14 J+
cis-1,3-Dichloropropene	10061-01-5	ug/kg																
Cyclohexane	110-82-7	ug/kg																
Ethylbenzene	100-41-4	ug/kg							1.9 J									
Isopropylbenzene	98-82-8	ug/kg																
M, P Xylenes	179601-23-1	ug/kg							8.3									
Methyl Acetate	79-20-9	ug/kg																
Methylcyclohexane	108-87-2	ug/kg																
Methylene Chloride	75-09-2	ug/kg							3.1 J									2.7 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg							4.2 J									
Styrene	100-42-5	ug/kg																
Toluene	108-88-3	ug/kg																
Trichloroethene (TCE)	79-01-6	ug/kg												9.1	10			24
Vinyl Chloride	75-01-4	ug/kg																
Total SVOCs			***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***11100.00***	***42640.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg																
2,4-Dinitrotoluene	121-14-2	ug/kg																
2-Methylnaphthalene	91-57-6	ug/kg																
4-Chloroaniline	106-47-8	ug/kg																
4-Nitroaniline	100-01-6	ug/kg																
Acenaphthene	83-32-9	ug/kg																
Acenaphthylene	208-96-8	ug/kg																
Acetophenone	98-86-2	ug/kg																
Anthracene	120-12-7	ug/kg						640 J	2500									
Benzo(a)anthracene	56-55-3	ug/kg						900 J	2600									
Benzo(a)pyrene	50-32-8	ug/kg							1200 J									
Benzo(b)fluoranthene	205-99-2	ug/kg						1100 J	3400									
Benzo(g,h,i)perylene	191-24-2	ug/kg																
Benzo(k)fluoranthene	207-08-9	ug/kg							1100 J									
Biphenyl (Diphenyl)	92-52-4	ug/kg																
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg																
Carbazole	86-74-8	ug/kg						460 J	820 J									
Chrysene	218-01-9	ug/kg						1000 J	3700									
Dibenz(a,h)anthracene	53-70-3	ug/kg																
Dibenzofuran	132-64-9	ug/kg							920 J									
Fluoranthene	206-44-0	ug/kg						2900	12000									
Fluorene	86-73-7	ug/kg							1700 J									
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg																
Naphthalene	91-20-3	ug/kg																
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg																
N-Nitrosodiphenylamine	86-30-6	ug/kg																
Phenanthrene	85-01-8	ug/kg						2400	6400									
Pyrene	129-00-0	ug/kg						1700 J	6300									

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16
	START_DEPTH		89	89	99	109	117	1	8	15	25	25	34	44	54	58	66	74
	SYS_SAMPLE_CODE		SB-BR-13-89-90	SB-BR-13-89-90-2	SB-BR-13-99-100	SB-BR-13-109-110	SB-BR-13-117-118	SB-BR-LIF16-01-02	SB-BR-LIF16-08-09	SB-BR-LIF16-15-16	SB-BR-LIF16-25-26	SB-BR-LIF16-25-26-1	SB-BR-LIF16-34-35	SB-BR-LIF16-44-45	SB-BR-LIF16-54-55	SB-BR-LIF16-58-59	SB-BR-LIF16-66-67	SB-BR-LIF16-74-75
Analyte	**CAS**	**Units**																
	Total VOC TICs		***31.00***	***0.00***	***0.00***	***4.10***	***17.00***	***27.20***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***11.00***	***7.00***	***0.00***	***0.00***	***34.10***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																
.beta.-Pinene	127-91-3	ug/kg																
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg																
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg																
1,2,3-Trimethyl Benzene	526-73-8	ug/kg																
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																
1,2-Dimethylindan	17057-82-8	ug/kg																
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg																
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg																
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg																
1-Ethyl Naphthalene	1127-76-0	ug/kg																
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg																
1-Ethyltoluene	611-14-3	ug/kg																
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg																
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg																
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg																
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg																
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																
1-Methylindan	767-58-8	ug/kg																
1-Methylindene	767-59-9	ug/kg																
1-methylnaphthalene	90-12-0	ug/kg						8.5 NJ										
2,3-Benzofuran	271-89-6	ug/kg																
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																
2,4-Dimethylstyrene	2234-20-0	ug/kg																
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg																
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg																
2-METHYLBENZOFURAN	4265-25-2	ug/kg																
2-METHYLINDENE	2177-47-1	ug/kg																
2-Methylnaphthalene	91-57-6	ug/kg						8.7 NJ										
2-Methylthiophene	554-14-3	ug/kg																
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																
3-METHYL-1H-INDENE	767-60-2	ug/kg																
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg																
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg																
3-Methylphenylacetylene	766-82-5	ug/kg																
3-METHYLTHIOPHENE	616-44-4	ug/kg																
3-phenyl-2-propenal	104-55-2	ug/kg																
3-Phenylbut-1-ene	934-10-1	ug/kg																
3-Vinyltoluene	100-80-1	ug/kg																
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																
4-Ethyltoluene	622-96-8	ug/kg																
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																
Acenaphthene	83-32-9	ug/kg																
Alpha Methylstyrene	98-83-9	ug/kg																
Azulene	275-51-4	ug/kg																
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg																
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg																
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg																
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg																
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg																
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg																
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg																
Benzo[b]thiophene	95-15-8	ug/kg																
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg																
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																
Benzo[C]Thiophene	270-82-6	ug/kg																
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg																
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg																
Biphenyl (Diphenyl)	92-52-4	ug/kg																
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16
	START_DEPTH		89	89	99	109	117	1	8	15	25	25	34	44	54	58	66	74
	SYS_SAMPLE_CODE		SB-BR-13-89-90	SB-BR-13-89-90-2	SB-BR-13-99-100	SB-BR-13-109-110	SB-BR-13-117-118	SB-BR-LIF16-01-02	SB-BR-LIF16-08-09	SB-BR-LIF16-15-16	SB-BR-LIF16-25-26	SB-BR-LIF16-25-26-1	SB-BR-LIF16-34-35	SB-BR-LIF16-44-45	SB-BR-LIF16-54-55	SB-BR-LIF16-58-59	SB-BR-LIF16-66-67	SB-BR-LIF16-74-75
Analyte	**CAS**	**Units**																
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg																
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																
Cyclopropylbenzene	873-49-4	ug/kg																
Cymene	99-87-6	ug/kg																
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																
Ethyl Acetate	141-78-6	ug/kg					17 NJ											
Ethyl Naphthalene; 2-	939-27-5	ug/kg																
Heptanal	111-71-7	ug/kg																
Hexanal	66-25-1	ug/kg																
Indene	95-13-6	ug/kg																
M-Cymene	535-77-3	ug/kg																
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																
Naphthalene	91-20-3	ug/kg																
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg																
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																
Nonanol	124-19-6	ug/kg																
N-Propylbenzene	103-65-1	ug/kg																
Octanal	124-13-0	ug/kg																
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg																
Pentafluorobenzene	363-72-4	ug/kg	31 NJ															
Phenylethyne	536-74-3	ug/kg																
Pinene	7785-26-4	ug/kg																
Pinene	80-56-8	ug/kg																
Propylene	115-07-1	ug/kg																
Pyridine	110-86-1	ug/kg																
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg																
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg																
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg																
Total Alkane Tics	E966796	ug/kg												11 J	7 J			8.1 J
Unknown-01	UNKNOWN-01	ug/kg				4.1 J		10 J										15 J
Unknown-02	UNKNOWN-02	ug/kg																11 J
Unknown-03	UNKNOWN-03	ug/kg																
Unknown-04	UNKNOWN-04	ug/kg																
Unknown-05	UNKNOWN-05	ug/kg																
Unknown-06	UNKNOWN-06	ug/kg																
Unknown-07	UNKNOWN-07	ug/kg																
Unknown-08	UNKNOWN-08	ug/kg																
Unknown-09	UNKNOWN-09	ug/kg																
Unknown-10	UNKNOWN-10	ug/kg																
Unknown-11	UNKNOWN-11	ug/kg																
Unknown-12	UNKNOWN-12	ug/kg																
Unknown-13	UNKNOWN-13	ug/kg																
Unknown-14	UNKNOWN-14	ug/kg																
Total SVOC TICs			***5,296***	***-***	***5,615***	***6,223***	***5,085***	***132,000***	***60,630***	***16,843***	***18,977***	***16,750***	***16,230***	***19,670***	***19,520***	***16,558***	***14,924***	***18,788***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																
.gamma.-Sitosterol (01)	83-47-6	ug/kg																
1(2H)-Isoquinolinone	491-30-5	ug/kg																
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg																
1,2-Cyclohexanediol, Total	931-17-9	ug/kg								95 NJ	97 NJ		110 NJ					
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg																
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																
1,3-Dimethylnaphthalene	575-41-7	ug/kg																
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg																
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg																
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg																
11h-Benzo[b]Fluorene	243-17-4	ug/kg							1200 NDJ									
12-Hydroxystearic acid	106-14-9	ug/kg																
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																
1-Ethyl Naphthalene	1127-76-0	ug/kg																
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg																
1-Iodo-2-Methylundecane	1855-47-6	ug/kg																
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg																
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg																
1-Phenyl-1-Propyne	673-32-5	ug/kg																
1-Phenylnaphthalene	605-02-7	ug/kg																
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg																
2,3-Dihydro-1h-Indene	496-11-7	ug/kg																
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																
2,4-Nonadiyne	63621-15-8	ug/kg																
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg																
2,6-Dimethyl-Napthalene	581-42-0	ug/kg																
2,7-Dimethyl Naphthalene	582-16-1	ug/kg																
2-Chlorocyclohexanol	1561-86-0	ug/kg	120 BNJ		130 BNJ	130 BNJ	110 BNJ			360 BNJ	400 BNJ	480 BNJ	440 BNJ	450 BNJ	480 BNJ	380 BNJ	370 BNJ	400 BNJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16
	START_DEPTH		89	89	99	109	117	1	8	15	25	25	34	44	54	58	66	74
	SYS_SAMPLE_CODE		SB-BR-13-89-90	SB-BR-13-89-90-2	SB-BR-13-99-100	SB-BR-13-109-110	SB-BR-13-117-118	SB-BR-LIF16-01-02	SB-BR-LIF16-08-09	SB-BR-LIF16-15-16	SB-BR-LIF16-25-26	SB-BR-LIF16-25-26-1	SB-BR-LIF16-34-35	SB-BR-LIF16-44-45	SB-BR-LIF16-54-55	SB-BR-LIF16-58-59	SB-BR-LIF16-66-67	SB-BR-LIF16-74-75
Analyte	**CAS**	**Units**																
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																
2-METHYLBENZOFURAN	4265-25-2	ug/kg																
2-Phenyl Naphthalene	612-94-2	ug/kg																
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																
2-Propenyl Benzene	300-57-2	ug/kg																
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg																
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																
3-AMINOTOLUENE	108-44-1	ug/kg																
3-Methylcarbazole	4630-20-0	ug/kg																
3-Methylphenylacetylene	766-82-5	ug/kg																
3-Picoline	108-99-6	ug/kg																
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg																
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg																
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg																
4-Methylcarbazole	3770-48-7	ug/kg																
4-Methyldibenzofuran	7320-53-8	ug/kg																
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg																
5(4H)-Thebenidinone	64884-40-8	ug/kg							810 NDJ									
5-Aminoindan	24425-40-9	ug/kg																
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg																
6(5H)-Phenanthridinone	1015-89-0	ug/kg							920 NDJ									
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg																
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg																
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg							800 NDJ									
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg																
9-Anthracenecarbonitrile	1210-12-4	ug/kg																
9-Hexadecanoic Acid	486-25-9	ug/kg																
9H-Fluoren-3-ol	6344-67-8	ug/kg																
9H-Fluoren-9-ol	1689-64-1	ug/kg																
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg																
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg																
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																
Acridine	260-94-6	ug/kg							3100 NDJ									
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																
Anthracene, 9,10-dihydro-	613-31-0	ug/kg																
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg																
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg																
Benzo(a)fluorene	238-84-6	ug/kg																
BENZO(B)CARBAZOLE	243-28-7	ug/kg																
Benzo(c)cinnoline	230-17-1	ug/kg																
Benzo(c)phenanthrene	195-19-7	ug/kg																
BENZO(KL)XANTHENE	200-23-7	ug/kg																
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																
Benzo[b]thiophene	95-15-8	ug/kg																
Benzo[e]pyrene	192-97-2	ug/kg																
Benzo[f]quinoline	85-02-9	ug/kg																
Benzo[h]quinoline	230-27-3	ug/kg																
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																
Beta-Sitosterol	83-46-5	ug/kg																
Butyl citrate	77-94-1	ug/kg																
CH3C(O)CH2CH2OH	590-90-9	ug/kg																
Chloromethyl octadecanoate	77878-01-4	ug/kg																
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg										140 NJ				93 NJ	84 NJ	98 NJ
Cyclohexane	110-82-7	ug/kg						18000 NDJ	18000 NDJ									
Cyclohexene	110-83-8	ug/kg						31000 NDJ	31000 NDJ	15000 NJ	17000 NJ	14000 NJ	14000 NJ	17000 NJ	17000 NJ	15000 NJ	13000 NJ	17000 NJ
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg																
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg																
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg																
Dibenzothiophene (Synfuel)	132-65-0	ug/kg																
Dimantine	124-28-7	ug/kg																
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg																
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																
Ethenyl-cyclobutane	2597-49-1	ug/kg																
Ethyl Naphthalene; 2-	939-27-5	ug/kg																
Ethylidenecyclobutane	1528-21-8	ug/kg																
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg																
Hexadecanoic Acid	57-10-3	ug/kg												120 NJ		88 NJ	80 NJ	
Indene	95-13-6	ug/kg																
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-13 89	SB-BR-13 89	SB-BR-13 99	SB-BR-13 109	SB-BR-13 117	SB-BR-LIF16 1	SB-BR-LIF16 8	SB-BR-LIF16 15	SB-BR-LIF16 25	SB-BR-LIF16 25	SB-BR-LIF16 34	SB-BR-LIF16 44	SB-BR-LIF16 54	SB-BR-LIF16 58	SB-BR-LIF16 66	SB-BR-LIF16 74
	START_DEPTH																	
	SYS_SAMPLE_CODE		SB-BR-13-89-90	SB-BR-13-89-90-2	SB-BR-13-99-100	SB-BR-13-109-110	SB-BR-13-117-118	SB-BR-LIF16-01-02	SB-BR-LIF16-08-09	SB-BR-LIF16-15-16	SB-BR-LIF16-25-26	SB-BR-LIF16-25-26-1	SB-BR-LIF16-34-35	SB-BR-LIF16-44-45	SB-BR-LIF16-54-55	SB-BR-LIF16-58-59	SB-BR-LIF16-66-67	SB-BR-LIF16-74-75
Analyte	**CAS**	**Units**																
Isoquinoline, 1-methyl-	1721-93-3	ug/kg																
Mesityl Oxide	141-79-7	ug/kg																
Methyl Anthracene; 1-	610-48-0	ug/kg																
Methyl Anthracene; 2-	613-12-7	ug/kg																
Methyl Hexadecanoate	112-39-0	ug/kg																
Methyl Phenanthrene; 2-	2531-84-2	ug/kg																
Methyl Pyrene	2381-21-7	ug/kg																
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg																
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg																
Naphtho[1,2-b]thiophene	234-41-3	ug/kg																
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg																
Naphtho[2,1-b]thiophene	233-02-3	ug/kg																
N-Methylaniline	100-61-8	ug/kg																
Nonanoic Acid	112-05-0	ug/kg																
Nonanol	124-19-6	ug/kg																
Octadecanoic Acid	57-11-4	ug/kg																
Octanoic Acid	124-07-2	ug/kg																
Oleamide	301-02-0	ug/kg												130 NJ		77 NJ		130 NJ
Oleic Acid	112-80-1	ug/kg																
Perylene	1985-5-0	ug/kg																
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg																
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg																
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg																
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg																
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg																
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg																
Quinoline, 2-Methyl-	91-63-4	ug/kg																
Total Alkane Tics	E966796	ug/kg								88 J								
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg																
Tributyl acetylcitrate	77-90-7	ug/kg																
Triphenylphosphine Oxide	791-28-6	ug/kg																
Unknown-01	UNKNOWN-01	ug/kg	76 BJ		85 BJ	93 BJ	75 BJ	83000 BDJ	1600 BDJ	870 BJ	1000 BJ	1500 BJ	1100 BJ	1300 BJ	1300 BJ	490 BJ	920 BJ	690 BJ
Unknown-02	UNKNOWN-02	ug/kg	5100 BJ		5400 BJ	6000 BJ	4900 BJ		3200 DJ	280 J	310 J	420 BJ	370 J	370 J	390 BJ	290 J	300 BJ	320 J
Unknown-03	UNKNOWN-03	ug/kg								150 J	170 BJ	210 BJ	210 BJ	190 BJ	230 J	140 BJ	170 BJ	150 J
Unknown-04	UNKNOWN-04	ug/kg												110 J	120 J			
Unknown-05	UNKNOWN-05	ug/kg																
Unknown-06	UNKNOWN-06	ug/kg																
Unknown-07	UNKNOWN-07	ug/kg																
Unknown-08	UNKNOWN-08	ug/kg																
Unknown-09	UNKNOWN-09	ug/kg																
Unknown-10	UNKNOWN-10	ug/kg																
Unknown-11	UNKNOWN-11	ug/kg																
Unknown-12	UNKNOWN-12	ug/kg																
Unknown-13	UNKNOWN-13	ug/kg																
Unknown-14	UNKNOWN-14	ug/kg																
Unknown-15	UNKNOWN-15	ug/kg																
Unknown-16	UNKNOWN-16	ug/kg																
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																
Solids, Percent	SOLID	%									76.5	78.3						
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			SYS_LOC_CODE	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22
			START_DEPTH	2	9	12	20	25	31	43	53	2	10	15	19	29	39	48	59
			SYS_SAMPLE_CODE	SB-BR-LIF18-02-03	SB-BR-LIF18-09-10	SB-BR-LIF18-12-13	SB-BR-LIF18-20-21	SB-BR-LIF18-25-26	SB-BR-LIF18-31-32	SB-BR-LIF18-43-44	SB-BR-LIF18-53-54	SB-BR-LIF22-02-03	SB-BR-LIF22-10-11	SB-BR-LIF22-15-16	SB-BR-LIF22-19-20	SB-BR-LIF22-29-30	SB-BR-LIF22-39-40	SB-BR-LIF22-48-49	SB-BR-LIF22-59-60
Analyte	**CAS**	**Units**																		
Total BTEX				***0.00***	***69.30***	***77,700.00***	***59,980.00***	***102.00***	***3.60***	***0***	***0***	***4.30***	***0***	***14.20***	***8,924.00***	***68.41***	***33.20***	***2,566.00***	***4.20***
1,1,1-Trichloroethane	71-55-6	ug/kg																14	
1,1-Dichloroethane	75-34-3	ug/kg																5.6 J	
1,1-Dichloroethene	75-35-4	ug/kg																	
1,2,4-Trimethylbenzene	95-63-6	ug/kg		61	47000	39000	28	1.4 J				1.1 J		14	11000	27	11	2200	6.9
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg			19000														
1,2-Dichloropropane	78-87-5	ug/kg																	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg		25	20000	16000	10							6.1	5100	12	4.6 J	1000	2.7 J
2-Butanone	78-93-3	ug/kg																	
2-Hexanone	591-78-6	ug/kg																	
Acetone	67-64-1	ug/kg		41	17	21	15	27				16		31	33	9.3 J	10		9.6 J
Benzene	71-43-2	ug/kg		1.9 J	3700 J+	980 J+	12								14 J+	0.81 J		16	
Bromomethane	74-83-9	ug/kg																	
Carbon Disulfide	75-15-0	ug/kg																	
Carbon Tetrachloride	56-23-5	ug/kg																	
Chlorobenzene	108-90-7	ug/kg																	
Chloroform	67-66-3	ug/kg										17							
cis-1,2-Dichloroethene	156-59-2	ug/kg			13 J+	950 J+	42										1.6 J	29	
cis-1,3-Dichloropropene	10061-01-5	ug/kg																	
Cyclohexane	110-82-7	ug/kg			9.8 J+	11 J+									3.7 J+				
Ethylbenzene	100-41-4	ug/kg		14	14000	11000	13							2.1 J	1500	11	4.9 J	350	
Isopropylbenzene	98-82-8	ug/kg					1.7 J								390 J	0.97 J			
M, P Xylenes	179601-23-1	ug/kg		30	33000	27000	38	2.6 J				2.9 J		7.7	4900	36	16	1400	2.5 J
Methyl Acetate	79-20-9	ug/kg																	
Methylcyclohexane	108-87-2	ug/kg			44 J+	56 J+									5.2 J+			1.2 J+	
Methylene Chloride	75-09-2	ug/kg		3 J	2.1 J-	3.6 J-		1.9 J				16	1.9 J	25	22	2.9 J	5.3	6.9	3.2 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg		16	13000	10000	16	1 J				1.4 J		4.4 J	2300	17	7.8	650	1.7 J
Styrene	100-42-5	ug/kg			6000	4600	9.5							1.4 J	1100		5.1 J	510	
Toluene	108-88-3	ug/kg		7.4	14000	11000	23								210 J	3.6 J	4.5 J	150 J	
Trichloroethene (TCE)	79-01-6	ug/kg			130 J+	17 J+									1.7 J+			42	
Vinyl Chloride	75-01-4	ug/kg				14													
Total SVOCs				***0.00***	***42400.00***	***2927300.00***	***8509300.00***	***5800.00***	***1443.00***	***0.00***	***130.00***	***17060.00***	***6934.00***	***73560.00***	***5003500.00***	***448.00***	***544.00***	***1527800.00***	***11032.00***
1-methylnaphthalene	90-12-0	ug/kg				150000	460000 J							820	130000			49000	250
2,4-Dinitrotoluene	121-14-2	ug/kg													7100 J				
2-Methylnaphthalene	91-57-6	ug/kg		3200 J	230000	680000			190					1600	270000			110000	460
4-Chloroaniline	106-47-8	ug/kg														89 J		77000	
4-Nitroaniline	100-01-6	ug/kg												240 J	18000 J			4800 J	38 J
Acenaphthene	83-32-9	ug/kg			150000	490000 J							220	4700	390000			100000	660
Acenaphthylene	208-96-8	ug/kg			39000	160000									5800 J			4900 J	
Acetophenone	98-86-2	ug/kg																	170 J
Anthracene	120-12-7	ug/kg		1200 J	62000	170000						490	200	2000	140000			23000	230
Benzo(a)anthracene	56-55-3	ug/kg			50000	170000						1300	380	2100	140000			37000	430
Benzo(a)pyrene	50-32-8	ug/kg			22000	79000						680	200	780	54000			15000	170
Benzo(b)fluoranthene	205-99-2	ug/kg		1600 J	30000	110000						1400	370	1100	75000			21000	280
Benzo(g,h,i)perylene	191-24-2	ug/kg			5700 J	21000						340 J	69 J		10000				
Benzo(k)fluoranthene	207-08-9	ug/kg			13000	39000						450	120 J	390	28000			7100 J	84 J
Biphenyl (Diphenyl)	92-52-4	ug/kg			41000	150000								620	67000			21000	150 J
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg																	490
Carbazole	86-74-8	ug/kg		2300 J	34000	95000	500 J					220 J	55 J	2000	66000		160 J	14000 J	210 J
Chrysene	218-01-9	ug/kg		1600 J	43000	120000						1400	380	1800	150000			24000	330
Dibenz(a,h)anthracene	53-70-3	ug/kg				8300 J						170 J			4700 J				
Dibenzofuran	132-64-9	ug/kg		2100 J	160000	520000 J						370 J	240	4300	280000		160	84000	750
Fluoranthene	206-44-0	ug/kg		4700	260000 J	580000						5100	1800	12000	690000	80 J		190000	2000
Fluorene	86-73-7	ug/kg		2200 J	190000 J	580000 J						150 J	240	5200	310000		74 J	96000	840
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg			7600 J	27000						490	100 J	200 J	14000				
Naphthalene	91-20-3	ug/kg		15000	870000	2300000	5300	1200		130 J				3400	590000			230000	890
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg											160 J			140 J			
N-Nitrosodiphenylamine	86-30-6	ug/kg												110 J	3900 J				
Phenanthrene	85-01-8	ug/kg		5900	400000	1300000		53 J				1400	1200	22000	1100000	87 J	150 J	300000	1200
Pyrene	129-00-0	ug/kg		2600 J	170000 J	450000 J						3100	1200	8200	460000	52 J		120000	1400

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22
START_DEPTH			2	9	12	20	25	31	43	53	2	10	15	19	29	39	48	59
SYS_SAMPLE_CODE			SB-BR-LIF18-02-03	SB-BR-LIF18-09-10	SB-BR-LIF18-12-13	SB-BR-LIF18-20-21	SB-BR-LIF18-25-26	SB-BR-LIF18-31-32	SB-BR-LIF18-43-44	SB-BR-LIF18-53-54	SB-BR-LIF22-02-03	SB-BR-LIF22-10-11	SB-BR-LIF22-15-16	SB-BR-LIF22-19-20	SB-BR-LIF22-29-30	SB-BR-LIF22-39-40	SB-BR-LIF22-48-49	SB-BR-LIF22-59-60
Analyte	**CAS**	**Units**																
Total VOC TICs			***0.00***	***548.00***	***1826390.00***	***1171530.00***	***382.00***	***0.00***	***0.00***	***0.00***	***21.00***	***26.30***	***2158.30***	***568071.10***	***1877.30***	***292.50***	***63378.00***	***1218.50***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg																
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg																
.beta.-Pinene	127-91-3	ug/kg			1800 NJ													
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg																
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg																
1,2,3-Trimethyl Benzene	526-73-8	ug/kg			3800 NJ	8500 NJ												
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg																
1,2-Dimethylindan	17057-82-8	ug/kg															340 NJ	
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg																
1,7-Dimethyl Naphthalene	575-37-1	ug/kg										7.8 NJ						10 NJ
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg																
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg			200 NJ	260 NJ	14 NJ							3200 NDJ				
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg																
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg		12 NJ									6.2 NJ	22 NJ				
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg															2300 NJ	
1-Ethyl Naphthalene	1127-76-0	ug/kg										5.2 NJ		3300 NDJ				
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg																
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg		11 NJ	3600 NJ	5200 NJ								3600 NDJ		5.5 NJ		
1-Ethyltoluene	611-14-3	ug/kg					7.9 NJ								9.3 NJ		930 NJ	
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg		7.1 NJ														
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg																
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg																
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg																
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg			280 NJ		8.3 NJ							6200 NDJ			16 NJ	
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg																
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg																
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg																
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg												780 NDJ				
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg				280 NJ							17 NJ	11 NJ			15 NJ	8.7 NJ
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg																
1-Methylindan	767-58-8	ug/kg			440 NJ	520 NJ											22 NJ	
1-Methylindene	767-59-9	ug/kg											16 NJ				12 NJ	
1-methylnaphthalene	90-12-0	ug/kg																
2,3-Benzofuran	271-89-6	ug/kg		13 NJ	3900 NJ	2700 NJ	20 NJ							2700 NDJ	37 NJ	21 NJ	1800 NJ	
2,3-Dihydro-1h-Indene	496-11-7	ug/kg		190 NJ	9000 NJ	9500 NJ	71 NJ						93 NJ	520 NJ	120 NJ	74 NJ	11000 NJ	21 NJ
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg																
2,3-Dimethyl Naphthalene	581-40-8	ug/kg										7.2 NJ						
2,4-Dimethylstyrene	2234-20-0	ug/kg																
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg																
2,6-Dimethyl-Napthalene	581-42-0	ug/kg		6.9 NJ										3300 NDJ				13 NJ
2,7-Dimethyl Naphthalene	582-16-1	ug/kg					6.2 NJ										5000 NJ	
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg																
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg			240 NJ													
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg			310 NJ												430 NJ	
2-METHYLBENZOFURAN	4265-25-2	ug/kg		33 NJ	700 NJ	880 NJ	27 NJ						24 NJ	11000 NDJ	39 NJ	20 NJ	3800 NJ	11 NJ
2-METHYLINDENE	2177-47-1	ug/kg		18 NJ		200 NJ	11 NJ						8.5 NJ				1200 NJ	
2-Methylnaphthalene	91-57-6	ug/kg																180 NJ
2-Methylthiophene	554-14-3	ug/kg			130 NJ													
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																
3-METHYL-1H-INDENE	767-60-2	ug/kg																
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg											6.2 NJ					
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg																
3-Methylphenylacetylene	766-82-5	ug/kg																
3-METHYLTHIOPHENE	616-44-4	ug/kg			120 NJ													
3-phenyl-2-propenal	104-55-2	ug/kg																
3-Phenylbut-1-ene	934-10-1	ug/kg																
3-Vinyltoluene	100-80-1	ug/kg			730 NJ	1200 NJ											17 NJ	
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg																
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg																
4-Ethyltoluene	622-96-8	ug/kg																
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg																
Acenaphthene	83-32-9	ug/kg																
Alpha Methylstyrene	98-83-9	ug/kg				1800 NJ												
Azulene	275-51-4	ug/kg			3000 NJ	3400 NJ							1800 NJ	450000 NDJ	1500 NJ			
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg															880 NJ	
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg				110 NJ												
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg												3000 NDJ				
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg																
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg																
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg																
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg				2600 NJ								17 NJ				
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg		6.7 NJ		280 NJ								1500 NDJ			9.8 NJ	
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg		31 NJ	240 NJ								11 NJ	13 NJ	7 NJ		1700 NJ	
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg			240 NJ													
Benzo[b]thiophene	95-15-8	ug/kg			150 NJ		57 NJ								68 NJ			36 NJ
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg												1800 NDJ			980 NJ	
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg																
Benzo[C]Thiophene	270-82-6	ug/kg		54 NJ		180 NJ								9.4 NJ				
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg		20 NJ	430 NJ	500 NJ	11 NJ							17 NJ			1300 NJ	
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg																
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg				2300 NJ												
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg												570 NDJ				
Biphenyl (Diphenyl)	92-52-4	ug/kg					8.6 NJ											19 NJ
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg																5.5 NJ

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22
	START_DEPTH		2	9	12	20	25	31	43	53	2	10	15	19	29	39	48	59
	SYS_SAMPLE_CODE		SB-BR-LIF18-02-03	SB-BR-LIF18-09-10	SB-BR-LIF18-12-13	SB-BR-LIF18-20-21	SB-BR-LIF18-25-26	SB-BR-LIF18-31-32	SB-BR-LIF18-43-44	SB-BR-LIF18-53-54	SB-BR-LIF22-02-03	SB-BR-LIF22-10-11	SB-BR-LIF22-15-16	SB-BR-LIF22-19-20	SB-BR-LIF22-29-30	SB-BR-LIF22-39-40	SB-BR-LIF22-48-49	SB-BR-LIF22-59-60
Analyte	**CAS**	**Units**																
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg		26 NJ														
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg											76 NJ	18000 NDJ		40 NJ	7000 NJ	
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg																
Cyclopropylbenzene	873-49-4	ug/kg			1600 NJ													
Cymene	99-87-6	ug/kg												13 NJ				
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg																
Ethyl Acetate	141-78-6	ug/kg																
Ethyl Naphthalene; 2-	939-27-5	ug/kg															3300 NJ	7.7 NJ
Heptanal	111-71-7	ug/kg																
Hexanal	66-25-1	ug/kg																7.6 NJ
Indene	95-13-6	ug/kg		56 NJ	6900 NJ	10000 NJ	140 NJ						83 NJ	39000 NDJ	50 NJ	120 NJ	17000 NJ	19 NJ
M-Cymene	535-77-3	ug/kg																
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg																
Naphthalene	91-20-3	ug/kg																780 NJ
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg												5400 NDJ		5.4 NJ		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg		7.5 NJ														
Nonanol	124-19-6	ug/kg																10 NJ
N-Propylbenzene	103-65-1	ug/kg			330 NJ	470 NJ								7.7 NJ			7.2 NJ	
Octanal	124-13-0	ug/kg																
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg																
Pentafluorobenzene	363-72-4	ug/kg																
Phenylethyne	536-74-3	ug/kg																
Pinene	7785-26-4	ug/kg		17 NJ														
Pinene	80-56-8	ug/kg			9100 NJ	12000 NJ												
Propylene	115-07-1	ug/kg																
Pyridine	110-86-1	ug/kg													34 NJ			
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg															2000 NJ	
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg																
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg			230 NJ	250 NJ								30 NJ			27 NJ	
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg												17 NJ			15 NJ	
Total Alkane Tics	E966796	ug/kg			250 J	310 J								70 J			37 J	
Unknown-01	UNKNOWN-01	ug/kg		20 NJ	570000 J	1100000 BJ					21 J	6.1 J	7.4 NJ	920 DJ	13 NJ	6.6 NJ	220 J	90 NJ
Unknown-02	UNKNOWN-02	ug/kg		11 NJ	1200000 BJ	100 J							10 NJ	34 J			270 J	
Unknown-03	UNKNOWN-03	ug/kg		7.8 J	1200 J	5400 NJ								420 NDJ			330 J	
Unknown-04	UNKNOWN-04	ug/kg			6000 NJ	2300 NJ								4000 NDJ			160 J	
Unknown-05	UNKNOWN-05	ug/kg			1300 NJ	290 NJ								4400 NDJ			860 J	
Unknown-06	UNKNOWN-06	ug/kg			170 NJ									940 DJ			250 J	
Unknown-07	UNKNOWN-07	ug/kg												1100 DJ			150 J	
Unknown-08	UNKNOWN-08	ug/kg												1400 DJ				
Unknown-09	UNKNOWN-09	ug/kg												760 DJ				
Unknown-10	UNKNOWN-10	ug/kg																
Unknown-11	UNKNOWN-11	ug/kg																
Unknown-12	UNKNOWN-12	ug/kg																
Unknown-13	UNKNOWN-13	ug/kg																
Unknown-14	UNKNOWN-14	ug/kg																
Total SVOC TICs			***36,300***	***53,100***	***727,400***	***1,780,000***	***29,980***	***19,174***	***15,539***	***16,730***	***86,420***	***11,496***	***32,260***	***694,000***	***12,190***	***13,050***	***214,100***	***12,455***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg																
.gamma.-Sitosterol (01)	83-47-6	ug/kg																
1(2H)-Isoquinolinone	491-30-5	ug/kg													90 NJ			
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg			14000 NDJ													
1,2-Cyclohexanediol, Total	931-17-9	ug/kg																
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg			10000 NDJ													
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg																
1,3-Dimethylnaphthalene	575-41-7	ug/kg			17000 NDJ	57000 NDJ												
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg				30000 NDJ												
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg			13000 NDJ	30000 NDJ												
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg																
1,7-Dimethyl Naphthalene	575-37-1	ug/kg																
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg									280 NDJ							
11h-Benzo[b]Fluorene	243-17-4	ug/kg			19000 NDJ	26000 NDJ								35000 DNJ			8000 NDJ	150 NJ
12-Hydroxystearic acid	106-14-9	ug/kg																
13-Octadecenoic acid, methy...	56554-47-3	ug/kg																
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg			18000 NDJ													
1-Ethyl Naphthalene	1127-76-0	ug/kg			17000 NDJ													
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg			16000 NDJ													
1-Iodo-2-Methylundecane	1855-47-6	ug/kg				33000 NDJ												
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg				24000 NDJ												
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg											440 NDJ				16000 NDJ	
1-Phenyl-1-Propyne	673-32-5	ug/kg																
1-Phenylnaphthalene	605-02-7	ug/kg												38000 DNJ				
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg													100 NJ			
2,3-Dihydro-1h-Indene	496-11-7	ug/kg			25000 NDJ	72000 NDJ												
2,3-Dimethyl Naphthalene	581-40-8	ug/kg																
2,4-Nonadiyne	63621-15-8	ug/kg				50000 NDJ		77 NJ										
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg				22000 NDJ												
2,6-Dimethyl-Napthalene	581-42-0	ug/kg											200 NDJ					
2,7-Dimethyl Naphthalene	582-16-1	ug/kg			48000 NDJ	170000 NDJ								23000 NDJ			6000 NDJ	
2-Chlorocyclohexanol	1561-86-0	ug/kg						960 BNJ	350 BNJ	370 BNJ								250 BNJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg																

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			SB-BR-LIF18 2	SB-BR-LIF18 9	SB-BR-LIF18 12	SB-BR-LIF18 20	SB-BR-LIF18 25	SB-BR-LIF18 31	SB-BR-LIF18 43	SB-BR-LIF18 53	SB-BR-LIF22 2	SB-BR-LIF22 10	SB-BR-LIF22 15	SB-BR-LIF22 19	SB-BR-LIF22 29	SB-BR-LIF22 39	SB-BR-LIF22 48	SB-BR-LIF22 59
START_DEPTH																		
SYS_SAMPLE_CODE			SB-BR-LIF18-02-03	SB-BR-LIF18-09-10	SB-BR-LIF18-12-13	SB-BR-LIF18-20-21	SB-BR-LIF18-25-26	SB-BR-LIF18-31-32	SB-BR-LIF18-43-44	SB-BR-LIF18-53-54	SB-BR-LIF22-02-03	SB-BR-LIF22-10-11	SB-BR-LIF22-15-16	SB-BR-LIF22-19-20	SB-BR-LIF22-29-30	SB-BR-LIF22-39-40	SB-BR-LIF22-48-49	SB-BR-LIF22-59-60
Analyte	**CAS**	**Units**																
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg																
2-METHYLBENZOFURAN	4265-25-2	ug/kg			9700 NDJ													
2-Phenyl Naphthalene	612-94-2	ug/kg			16000 NDJ	62000 NDJ							600 NDJ	32000 NDJ				110 NJ
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg																
2-Propenyl Benzene	300-57-2	ug/kg						80 NJ										
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg			22000 NDJ													
3,6-Dimethylphenanthrene	1576-67-6	ug/kg																
3-AMINOTOLUENE	108-44-1	ug/kg														300 NJ		
3-Methylcarbazole	4630-20-0	ug/kg																
3-Methylphenylacetylene	766-82-5	ug/kg															8000 NDJ	
3-Picoline	108-99-6	ug/kg																
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg			9700 NDJ	29000 NDJ												
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg																
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg			71000 NDJ	270000 NDJ						190 NJ	2100 NDJ	100000 NDJ			27000 NDJ	420 NJ
4-Methylcarbazole	3770-48-7	ug/kg																
4-Methyldibenzofuran	7320-53-8	ug/kg			24000 NDJ	120000 NDJ							430 NDJ	37000 NDJ			7600 NDJ	160 NJ
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg												29000 NDJ				100 NJ
5(4H)-Thebenidinone	64884-40-8	ug/kg											340 NDJ					
5-Aminoindan	24425-40-9	ug/kg																
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg																
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg											330 NDJ					
6(5H)-Phenanthridinone	1015-89-0	ug/kg											670 NDJ			310 NJ		
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg																
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg																160 BNJ
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg									210 NDJ		290 NDJ					
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg									820 NDJ							
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg															7100 NDJ	
9-Anthracenecarbonitrile	1210-12-4	ug/kg																
9-Hexadecanoic Acid	486-25-9	ug/kg									450 NDJ							
9H-Fluoren-3-ol	6344-67-8	ug/kg			34000 NDJ													
9H-Fluoren-9-ol	1689-64-1	ug/kg											620 NDJ				11000 NDJ	
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg			19000 NDJ	57000 NDJ							340 NDJ					110 NJ
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg												21000 NDJ				94 NJ
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg																
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg																
Acridine	260-94-6	ug/kg		1700 NDJ									760 NDJ					
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg																100 NJ
Anthracene, 9,10-dihydro-	613-31-0	ug/kg											210 NDJ					
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg																
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg				23000 NDJ												
Benzo(a)fluorene	238-84-6	ug/kg																
BENZO(B)CARBAZOLE	243-28-7	ug/kg																
Benzo(c)cinnoline	230-17-1	ug/kg																
Benzo(c)phenanthrene	195-19-7	ug/kg																120 NJ
BENZO(KL)XANTHENE	200-23-7	ug/kg																
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg																
Benzo[b]thiophene	95-15-8	ug/kg			43000 NDJ													
Benzo[e]pyrene	192-97-2	ug/kg			11000 NDJ						330 NDJ		230 NDJ	23000 NDJ				
Benzo[f]quinoline	85-02-9	ug/kg									230 NDJ							
Benzo[h]quinoline	230-27-3	ug/kg				22000 NDJ												
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg																
Beta-Sitosterol	83-46-5	ug/kg																
Butyl citrate	77-94-1	ug/kg																
CH3C(O)CH2CH2OH	590-90-9	ug/kg																
Chloromethyl octadecanoate	77878-01-4	ug/kg																
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg																
Cyclohexane	110-82-7	ug/kg																
Cyclohexene	110-83-8	ug/kg	35000 NDJ	46000 NDJ	66000 NDJ	61000 NDJ	29000 NDJ	16000 NJ	14000 NJ	15000 NJ	13000 NDJ	10000 NJ	16000 NDJ	52000 NDJ	11000 NJ		68000 NDJ	7500 NJ
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg																
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg									340 NDJ							
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg															4900 NDJ	
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg																
Dibenzothiophene (Synfuel)	132-65-0	ug/kg												50000 NDJ			12000 NDJ	180 NJ
Dimantine	124-28-7	ug/kg																
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg				79000 NDJ												
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg																
Ethenyl-cyclobutane	2597-49-1	ug/kg																
Ethyl Naphthalene; 2-	939-27-5	ug/kg																
Ethylidenecyclobutane	1528-21-8	ug/kg														10000 NJ		
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg											430 NDJ					
Hexadecanoic Acid	57-10-3	ug/kg						110 NJ	75 NJ	310 NJ								
Indene	95-13-6	ug/kg			41000 NDJ			160 NJ										
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg																

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-LIF18 2	SB-BR-LIF18 9	SB-BR-LIF18 12	SB-BR-LIF18 20	SB-BR-LIF18 25	SB-BR-LIF18 31	SB-BR-LIF18 43	SB-BR-LIF18 53	SB-BR-LIF22 2	SB-BR-LIF22 10	SB-BR-LIF22 15	SB-BR-LIF22 19	SB-BR-LIF22 29	SB-BR-LIF22 39	SB-BR-LIF22 48	SB-BR-LIF22 59
	START_DEPTH																	
	SYS_SAMPLE_CODE		SB-BR-LIF18-02-03	SB-BR-LIF18-09-10	SB-BR-LIF18-12-13	SB-BR-LIF18-20-21	SB-BR-LIF18-25-26	SB-BR-LIF18-31-32	SB-BR-LIF18-43-44	SB-BR-LIF18-53-54	SB-BR-LIF22-02-03	SB-BR-LIF22-10-11	SB-BR-LIF22-15-16	SB-BR-LIF22-19-20	SB-BR-LIF22-29-30	SB-BR-LIF22-39-40	SB-BR-LIF22-48-49	SB-BR-LIF22-59-60
Analyte	**CAS**	**Units**																
Isoquinoline, 1-methyl-	1721-93-3	ug/kg											230 NDJ					
Mesityl Oxide	141-79-7	ug/kg																
Methyl Anthracene; 1-	610-48-0	ug/kg			25000 NDJ													
Methyl Anthracene; 2-	613-12-7	ug/kg											270 NDJ					
Methyl Hexadecanoate	112-39-0	ug/kg																
Methyl Phenanthrene; 2-	2531-84-2	ug/kg			39000 NDJ	58000 NDJ							1100 NDJ	61000 NDJ				250 NJ
Methyl Pyrene	2381-21-7	ug/kg										100 NJ						99 NJ
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg																
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg															6100 NDJ	130 NJ
Naphtho[1,2-b]thiophene	234-41-3	ug/kg			29000 NDJ	110000 NDJ												
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg				28000 NDJ												
Naphtho[2,1-b]thiophene	233-02-3	ug/kg											990 NDJ					
N-Methylaniline	100-61-8	ug/kg																
Nonanoic Acid	112-05-0	ug/kg																
Nonanol	124-19-6	ug/kg																
Octadecanoic Acid	57-11-4	ug/kg								110 NJ								210 NJ
Octanoic Acid	124-07-2	ug/kg																
Oleamide	301-02-0	ug/kg																
Oleic Acid	112-80-1	ug/kg																
Perylene	1985-5-0	ug/kg																
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg																
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg														88 NJ		
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg														750 NJ		
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg																
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg														88 NJ		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg														110 NJ		
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg											1600 NDJ					
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg											850 NDJ					
Quinoline, 2-Methyl-	91-63-4	ug/kg		3900 NDJ	23000 NDJ								680 NDJ			400 NJ		
Total Alkane Tics	E966796	ug/kg																74 J
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg																
Tributyl acetylcitrate	77-90-7	ug/kg																98 NJ
Triphenylphosphine Oxide	791-28-6	ug/kg																
Unknown-01	UNKNOWN-01	ug/kg	1300 BDJ	1500 DJ	10000 DJ	21000 NDJ	980 BDJ	180 BJ	84 J	90 BJ	330 DJ	830 J	380 DJ	41000 NDJ	500 J	69 J	4900 DJ	800 BJ
Unknown-02	UNKNOWN-02	ug/kg			15000 DJ	31000 NDJ		670 BJ	880 BJ	850 BJ	70000 DJ	180 J	500 DJ	22000 NDJ	290 J	65 J	11000 NDJ	110 J
Unknown-03	UNKNOWN-03	ug/kg			11000 NDJ	26000 NDJ		79 J	150 J		160 DJ	120 J	200 DJ	29000 DJ	130 J	620 J	7600 NDJ	100 NJ
Unknown-04	UNKNOWN-04	ug/kg			12000 NDJ	29000 DJ		160 J			270 NDJ	76 J	740 NDJ	24000 DJ	80 J	140 J	8900 NDJ	100 J
Unknown-05	UNKNOWN-05	ug/kg				88000 NDJ		110 J					200 DJ	44000 DJ		110 J		230 J
Unknown-06	UNKNOWN-06	ug/kg				35000 NDJ		110 J					200 DJ	33000 DNJ				110 J
Unknown-07	UNKNOWN-07	ug/kg				94000 NDJ		290 J					330 NDJ					250 NJ
Unknown-08	UNKNOWN-08	ug/kg				23000 DJ		100 J										110 J
Unknown-09	UNKNOWN-09	ug/kg						88 J										330 J
Unknown-10	UNKNOWN-10	ug/kg																
Unknown-11	UNKNOWN-11	ug/kg																
Unknown-12	UNKNOWN-12	ug/kg																
Unknown-13	UNKNOWN-13	ug/kg																
Unknown-14	UNKNOWN-14	ug/kg																
Unknown-15	UNKNOWN-15	ug/kg																
Unknown-16	UNKNOWN-16	ug/kg																
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg			10600									8110				
Solids, Percent	SOLID	%			78.5			87.1						84.8			74.8	
TPH, HEM-SGT	TPHNONPOLAR	mg/kg			6200									719				

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-LIF22	SB-BR-LIF22
	START_DEPTH		69	89
	SYS_SAMPLE_CODE		SB-BR-LIF22-69-70	SB-BR-LIF22-89-90
Analyte	**CAS**	**Units**		
Total BTEX			***9.80***	***2.20***
1,1,1-Trichloroethane	71-55-6	ug/kg		
1,1-Dichloroethane	75-34-3	ug/kg		
1,1-Dichloroethene	75-35-4	ug/kg		
1,2,4-Trimethylbenzene	95-63-6	ug/kg		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/kg		
1,2-Dichloropropane	78-87-5	ug/kg		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/kg		
2-Butanone	78-93-3	ug/kg		
2-Hexanone	591-78-6	ug/kg		
Acetone	67-64-1	ug/kg		16
Benzene	71-43-2	ug/kg		
Bromomethane	74-83-9	ug/kg		
Carbon Disulfide	75-15-0	ug/kg		3.2 J
Carbon Tetrachloride	56-23-5	ug/kg		
Chlorobenzene	108-90-7	ug/kg		
Chloroform	67-66-3	ug/kg		
cis-1,2-Dichloroethene	156-59-2	ug/kg		
cis-1,3-Dichloropropene	10061-01-5	ug/kg		
Cyclohexane	110-82-7	ug/kg		
Ethylbenzene	100-41-4	ug/kg	1.1 J	
Isopropylbenzene	98-82-8	ug/kg		
M, P Xylenes	179601-23-1	ug/kg	5.8	
Methyl Acetate	79-20-9	ug/kg		
Methylcyclohexane	108-87-2	ug/kg		
Methylene Chloride	75-09-2	ug/kg	2.1 J	2.8 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/kg	2.9 J	
Styrene	100-42-5	ug/kg		
Toluene	108-88-3	ug/kg		2.2 J
Trichloroethene (TCE)	79-01-6	ug/kg		
Vinyl Chloride	75-01-4	ug/kg		
Total SVOCs			***0.00***	***0.00***
1-methylnaphthalene	90-12-0	ug/kg		
2,4-Dinitrotoluene	121-14-2	ug/kg		
2-Methylnaphthalene	91-57-6	ug/kg		
4-Chloroaniline	106-47-8	ug/kg		
4-Nitroaniline	100-01-6	ug/kg		
Acenaphthene	83-32-9	ug/kg		
Acenaphthylene	208-96-8	ug/kg		
Acetophenone	98-86-2	ug/kg		
Anthracene	120-12-7	ug/kg		
Benzo(a)anthracene	56-55-3	ug/kg		
Benzo(a)pyrene	50-32-8	ug/kg		
Benzo(b)fluoranthene	205-99-2	ug/kg		
Benzo(g,h,i)perylene	191-24-2	ug/kg		
Benzo(k)fluoranthene	207-08-9	ug/kg		
Biphenyl (Diphenyl)	92-52-4	ug/kg		
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/kg		
Carbazole	86-74-8	ug/kg		
Chrysene	218-01-9	ug/kg		
Dibenz(a,h)anthracene	53-70-3	ug/kg		
Dibenzofuran	132-64-9	ug/kg		
Fluoranthene	206-44-0	ug/kg		
Fluorene	86-73-7	ug/kg		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/kg		
Naphthalene	91-20-3	ug/kg		
N-Nitrosodi-N-Propylamine	621-64-7	ug/kg		
N-Nitrosodiphenylamine	86-30-6	ug/kg		
Phenanthrene	85-01-8	ug/kg		
Pyrene	129-00-0	ug/kg		

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Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-LIF22	SB-BR-LIF22
	START_DEPTH		69	89
	SYS_SAMPLE_CODE		SB-BR-LIF22-69-70	SB-BR-LIF22-89-90
Analyte	**CAS**	**Units**		
	Total VOC TICs		***0.00***	***0.00***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/kg		
(3-Methyl-2-Butenyl)-Benzene	4489-84-3	ug/kg		
.beta.-Pinene	127-91-3	ug/kg		
1,2,3,4-Tetramethylbenzene	488-23-3	ug/kg		
1,2,3,5-Tetramethylbenzene	527-53-7	ug/kg		
1,2,3-Trimethyl Benzene	526-73-8	ug/kg		
1,2,4,5-Tetramethylbenzene	95-93-2	ug/kg		
1,2-Dimethylindan	17057-82-8	ug/kg		
1,3,5-Cycloheptatriene, 3,7...	3479-89-8	ug/kg		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg		
1-CYCLOPROP-2-EN-1-YL-2-METHYLBEN	65051-83-4	ug/kg		
1-ETHENYL-3,5-DIMETHYLBENZENE	5379-20-4	ug/kg		
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/kg		
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/kg		
1-Ethyl Naphthalene	1127-76-0	ug/kg		
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/kg		
1-Ethyl-3-Methyl Benzene	620-14-4	ug/kg		
1-Ethyltoluene	611-14-3	ug/kg		
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/kg		
1H-Indazole, 3-methyl-	1000316-00-2	ug/kg		
1H-Indazole, 5,7-dimethyl-	43067-41-0	ug/kg		
1H-Inden-1-one, 2,3-dihydro...	54789-23-0	ug/kg		
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/kg		
1H-Indene, 1-ethyl-2,3-dihy...	4830-99-3	ug/kg		
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/kg		
1h-Indene, 2,3-Dihydro-1,3-Dimethyl-	17059-48-2	ug/kg		
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/kg		
1H-Indene, Octahydro-, cis-	824-22-6	ug/kg		
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/kg		
1-Methylindan	767-58-8	ug/kg		
1-Methylindene	767-59-9	ug/kg		
1-methylnaphthalene	90-12-0	ug/kg		
2,3-Benzofuran	271-89-6	ug/kg		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg		
2,3-Dihydro-4,6-Dimethyl-1H-Indene	1685-82-1	ug/kg		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg		
2,4-Dimethylstyrene	2234-20-0	ug/kg		
2,5-DIMETHYLTHIOPHENE	638-02-8	ug/kg		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg		
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/kg		
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/kg		
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/kg		
2-METHYLBENZOFURAN	4265-25-2	ug/kg		
2-METHYLINDENE	2177-47-1	ug/kg		
2-Methylnaphthalene	91-57-6	ug/kg		
2-Methylthiophene	554-14-3	ug/kg		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg		
3-METHYL-1H-INDENE	767-60-2	ug/kg		
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/kg		
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/kg		
3-Methylphenylacetylene	766-82-5	ug/kg		
3-METHYLTHIOPHENE	616-44-4	ug/kg		
3-phenyl-2-propenal	104-55-2	ug/kg		
3-Phenylbut-1-ene	934-10-1	ug/kg		
3-Vinyltoluene	100-80-1	ug/kg		
4-ETHENYL-1,2-DIMETHYLBENZENE	27831-13-6	ug/kg		
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/kg		
4-Ethyltoluene	622-96-8	ug/kg		
4-Phenylbut-3-ene-1-yne	1000222-12-0	ug/kg		
Acenaphthene	83-32-9	ug/kg		
Alpha Methylstyrene	98-83-9	ug/kg		
Azulene	275-51-4	ug/kg		
BENZENE, (1-METHYL-1-PROPENYL)-, (E	768-00-3	ug/kg		
Benzene, (1-methylenepropyl)-	2039-93-2	ug/kg		
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/kg		
Benzene, 1,1'-(1-ethenyl-1,...	61141-97-7	ug/kg		
BENZENE, 1-BUTYNYL-	622-76-4	ug/kg		
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/kg		
Benzene, 1-ethenyl-4-methyl-	622-97-9	ug/kg		
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/kg		
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/kg		
Benzene, 2-ethyl-1,3-dimethyl-	4/4/2870	ug/kg		
Benzo[b]thiophene	95-15-8	ug/kg		
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/kg		
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/kg		
Benzo[C]Thiophene	270-82-6	ug/kg		
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg		
Bicyclo[2.2.1]heptane, 2,2,...	20536-41-8	ug/kg		
Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-M	18172-67-3	ug/kg		
Bicyclo[4.2.0]octa-1,3,5-tr...	28749-81-7	ug/kg		
Biphenyl (Diphenyl)	92-52-4	ug/kg		
BUTA-2,3-DIEN-2-YLBENZENE	22433-39-2	ug/kg		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE	SB-BR-LIF22	SB-BR-LIF22
	START_DEPTH	69	89
	SYS_SAMPLE_CODE	SB-BR-LIF22-69-70	SB-BR-LIF22-89-90
Analyte	**CAS**	**Units**	
Cyclohexene, 4-Methyl-1-(1-Methylethyl)-	500-00-5	ug/kg	
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg	
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/kg	
Cyclopropylbenzene	873-49-4	ug/kg	
Cymene	99-87-6	ug/kg	
Dimethyl Naphthalene; 1,4-	571-58-4	ug/kg	
Ethyl Acetate	141-78-6	ug/kg	
Ethyl Naphthalene; 2-	939-27-5	ug/kg	
Heptanal	111-71-7	ug/kg	
Hexanal	66-25-1	ug/kg	
Indene	95-13-6	ug/kg	
M-Cymene	535-77-3	ug/kg	
Methyl-1,1'-Biphenyl; 3-	643-93-6	ug/kg	
Naphthalene	91-20-3	ug/kg	
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/kg	
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg	
Nonanol	124-19-6	ug/kg	
N-Propylbenzene	103-65-1	ug/kg	
Octanal	124-13-0	ug/kg	
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/kg	
Pentafluorobenzene	363-72-4	ug/kg	
Phenylethyne	536-74-3	ug/kg	
Pinene	7785-26-4	ug/kg	
Pinene	80-56-8	ug/kg	
Propylene	115-07-1	ug/kg	
Pyridine	110-86-1	ug/kg	
Tetracyclo[5.3.0.0 less than 2,6 greater t	34324-40-8	ug/kg	
Thiophene, 2,3-dimethyl-	632-16-6	ug/kg	
Thiophene, 2,4-dimethyl-	638-00-6	ug/kg	
Thiophene, 3,4-dimethyl-	632-15-5	ug/kg	
Total Alkane Tics	E966796	ug/kg	
Unknown-01	UNKNOWN-01	ug/kg	
Unknown-02	UNKNOWN-02	ug/kg	
Unknown-03	UNKNOWN-03	ug/kg	
Unknown-04	UNKNOWN-04	ug/kg	
Unknown-05	UNKNOWN-05	ug/kg	
Unknown-06	UNKNOWN-06	ug/kg	
Unknown-07	UNKNOWN-07	ug/kg	
Unknown-08	UNKNOWN-08	ug/kg	
Unknown-09	UNKNOWN-09	ug/kg	
Unknown-10	UNKNOWN-10	ug/kg	
Unknown-11	UNKNOWN-11	ug/kg	
Unknown-12	UNKNOWN-12	ug/kg	
Unknown-13	UNKNOWN-13	ug/kg	
Unknown-14	UNKNOWN-14	ug/kg	
Total SVOC TICs			***11,351***	***13,263***
(3.Beta)-Ergost-5-En-3-Ol	474-62-4	ug/kg		
.gamma.-Sitosterol (01)	83-47-6	ug/kg		
1(2H)-Isoquinolinone	491-30-5	ug/kg		
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/kg		
1,2-Cyclohexanediol, Total	931-17-9	ug/kg		
1,2-DIHYDRONAPHTHALENE	447-53-0	ug/kg		
1,3-Benzenedicarboxylic aci...	137-89-3	ug/kg		
1,3-Dimethylnaphthalene	575-41-7	ug/kg		
1,4,5-Trimethylnaphthalene	2131-41-1	ug/kg		
1,4,6-Trimethylnaphthalene	2131-42-2	ug/kg		
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/kg		
1,7-Dimethyl Naphthalene	575-37-1	ug/kg		
11h-Benzo[a]Fluoren-11-One	479-79-8	ug/kg		
11h-Benzo[b]Fluorene	243-17-4	ug/kg		
12-Hydroxystearic acid	106-14-9	ug/kg		260 NJ
13-Octadecenoic acid, methy...	56554-47-3	ug/kg		
1-Butenyl-(E)-Benzene	1005-64-7	ug/kg		
1-Ethyl Naphthalene	1127-76-0	ug/kg		
1H-Cyclopropa[L]Phenanthrene,1a,9b-Dih	949-41-7	ug/kg		
1-Iodo-2-Methylundecane	1855-47-6	ug/kg		
1-METHYLDIBENZOTHIOPHENE	31317-07-4	ug/kg		
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/kg		
1-Phenyl-1-Propyne	673-32-5	ug/kg		
1-Phenylnaphthalene	605-02-7	ug/kg		
2(1H)-Quinolinone, 4-methyl-	607-66-9	ug/kg		
2,3-Dihydro-1h-Indene	496-11-7	ug/kg		
2,3-Dimethyl Naphthalene	581-40-8	ug/kg		
2,4-Nonadiyne	63621-15-8	ug/kg		
2,5-Dimethyl Phenanthrene	3674-66-6	ug/kg		
2,6-Dimethyl-Napthalene	581-42-0	ug/kg		
2,7-Dimethyl Naphthalene	582-16-1	ug/kg		
2-Chlorocyclohexanol	1561-86-0	ug/kg	230 BNJ	250 BNJ
2-Cyclo Hexene-1-Ol	822-67-3	ug/kg		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-LIF22	SB-BR-LIF22
	START_DEPTH		69	89
	SYS_SAMPLE_CODE		SB-BR-LIF22-69-70	SB-BR-LIF22-89-90
Analyte	**CAS**	**Units**		
2-Methyl-5-Ethyl Pyridine	104-90-5	ug/kg		
2-METHYLBENZOFURAN	4265-25-2	ug/kg		
2-Phenyl Naphthalene	612-94-2	ug/kg		
2-Picoline (Alpha-Picoline)	109-06-8	ug/kg		
2-Propenyl Benzene	300-57-2	ug/kg		
3,4-Dimethylphenanthrene	1000452-24-5	ug/kg		
3,6-Dimethylphenanthrene	1576-67-6	ug/kg		
3-AMINOTOLUENE	108-44-1	ug/kg		
3-Methylcarbazole	4630-20-0	ug/kg		
3-Methylphenylacetylene	766-82-5	ug/kg		
3-Picoline	108-99-6	ug/kg		
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/kg		
4b,8-Dimethyl-2-Isopropylphenanthrene,	1000197-14-1	ug/kg		
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/kg		
4-Methylcarbazole	3770-48-7	ug/kg		
4-Methyldibenzofuran	7320-53-8	ug/kg		
4-PHENYLBENZALDEHYDE	3218-36-8	ug/kg		
5(4H)-Thebenidinone	64884-40-8	ug/kg		
5-Aminoindan	24425-40-9	ug/kg		
5H-1-Pyrindine, 6,7-dihydro-	533-37-9	ug/kg		
5H-Indeno[1,2-b]pyridine	244-99-5	ug/kg		
6(5H)-Phenanthridinone	1015-89-0	ug/kg		
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/kg	70 NJ	
7-Oxabicyclo[4.1.0]heptane	286-20-4	ug/kg		
9-(Cyanomethylene)fluorene	4425-74-5	ug/kg		
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Ox	84-65-1	ug/kg		
9,10-Bis(bromomethyl)anthra...	34373-96-1	ug/kg		
9-Anthracenecarbonitrile	1210-12-4	ug/kg		
9-Hexadecanoic Acid	486-25-9	ug/kg		
9H-Fluoren-3-ol	6344-67-8	ug/kg		
9H-Fluoren-9-ol	1689-64-1	ug/kg		
9H-Fluorene, 1-methyl-	1730-37-6	ug/kg		
9H-Fluorene, 2-methyl-	1430-97-3	ug/kg		
9-Octadecenoic Acid (Z)-Methyl Ester	112-62-9	ug/kg		4700 NJ
Acenaphtho(1,2-B)pyridine	206-49-5	ug/kg		
Acridine	260-94-6	ug/kg		
Anthracene, 1,4-dimethyl-	781-92-0	ug/kg		
Anthracene, 9,10-dihydro-	613-31-0	ug/kg		
Aziridine, 1-(1-propenyl)-,...	80839-91-4	ug/kg		
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-Y	2320-32-3	ug/kg		
Benzo(a)fluorene	238-84-6	ug/kg		
BENZO(B)CARBAZOLE	243-28-7	ug/kg		
Benzo(c)cinnoline	230-17-1	ug/kg		
Benzo(c)phenanthrene	195-19-7	ug/kg		
BENZO(KL)XANTHENE	200-23-7	ug/kg		
Benzo[b]naphtho[2,3-D]Furan	243-42-5	ug/kg		
Benzo[b]thiophene	95-15-8	ug/kg		
Benzo[e]pyrene	192-97-2	ug/kg		
Benzo[f]quinoline	85-02-9	ug/kg		
Benzo[h]quinoline	230-27-3	ug/kg		
BENZOFURAN, 7-METHYL-	17059-52-8	ug/kg		
Beta-Sitosterol	83-46-5	ug/kg		
Butyl citrate	77-94-1	ug/kg		
CH3C(O)CH2CH2OH	590-90-9	ug/kg		760 NJ
Chloromethyl octadecanoate	77878-01-4	ug/kg		100 NJ
cis-1,2-Cyclohexanediol	1792-81-0	ug/kg		
Cyclohexane	110-82-7	ug/kg		
Cyclohexene	110-83-8	ug/kg	6100 NJ	
Cyclononasiloxane, octadeca... (01)	556-71-8	ug/kg		
Cyclopenta(def)phenanthrenone	5737-13-3	ug/kg		
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/kg		
Decamethyl-Cyclopentasiloxane	541-02-6	ug/kg		
Dibenzothiophene (Synfuel)	132-65-0	ug/kg		
Dimantine	124-28-7	ug/kg		
Dimethyl Anthracene; 9,10-	781-43-1	ug/kg		
Dodecamethyl Cyclohexasiloxane	540-97-6	ug/kg		
Ethenyl-cyclobutane	2597-49-1	ug/kg		
Ethyl Naphthalene; 2-	939-27-5	ug/kg		
Ethylidenecyclobutane	1528-21-8	ug/kg		
Fluoranthene, 2-Methyl-	33543-31-6	ug/kg		
Hexadecanoic Acid	57-10-3	ug/kg		83 NJ
Indene	95-13-6	ug/kg		
Indeno(1,2,3-ij)isoquinoline	206-56-4	ug/kg		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-5
Soil Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE		SB-BR-LIF22	SB-BR-LIF22
	START_DEPTH		69	89
	SYS_SAMPLE_CODE		SB-BR-LIF22-69-70	SB-BR-LIF22-89-90
Analyte	**CAS**	**Units**		
Isoquinoline, 1-methyl-	1721-93-3	ug/kg		
Mesityl Oxide	141-79-7	ug/kg		
Methyl Anthracene; 1-	610-48-0	ug/kg		
Methyl Anthracene; 2-	613-12-7	ug/kg		
Methyl Hexadecanoate	112-39-0	ug/kg		
Methyl Phenanthrene; 2-	2531-84-2	ug/kg		
Methyl Pyrene	2381-21-7	ug/kg		
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/kg	77 BNJ	
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/kg		
Naphtho[1,2-b]thiophene	234-41-3	ug/kg		
Naphtho[2,1-b]furan, 1,2-di...	129812-23-3	ug/kg		
Naphtho[2,1-b]thiophene	233-02-3	ug/kg		
N-Methylaniline	100-61-8	ug/kg		
Nonanoic Acid	112-05-0	ug/kg		
Nonanol	124-19-6	ug/kg	63 NJ	
Octadecanoic Acid	57-11-4	ug/kg		
Octanoic Acid	124-07-2	ug/kg		
Oleamide	301-02-0	ug/kg		
Oleic Acid	112-80-1	ug/kg		1400 NJ
Perylene	1985-5-0	ug/kg		
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/kg		
Pyridine, 2,3-dimethyl-	583-61-9	ug/kg		
PYRIDINE, 2,4-DIMETHYL-	108-47-4	ug/kg		
PYRIDINE, 2,5-DIMETHYL-	589-93-5	ug/kg		
PYRIDINE, 2,6-DIMETHYL-	108-48-5	ug/kg		
Pyridine, 3,4-dimethyl-	583-58-4	ug/kg		
Quinoline, 2,4-dimethyl-	1198-37-4	ug/kg		
Quinoline, 2,7-dimethyl-	93-37-8	ug/kg		
Quinoline, 2-Methyl-	91-63-4	ug/kg		
Total Alkane Tics	E966796	ug/kg	74 J	
trans-1,2-Cyclohexanediol	1460-57-7	ug/kg		
Tributyl acetylcitrate	77-90-7	ug/kg		
Triphenylphosphine Oxide	791-28-6	ug/kg		
Unknown-01	UNKNOWN-01	ug/kg	57 J	5100 BJ
Unknown-02	UNKNOWN-02	ug/kg	4500 BJ	140 BJ
Unknown-03	UNKNOWN-03	ug/kg	120 BJ	220 J
Unknown-04	UNKNOWN-04	ug/kg	60 J	250 J
Unknown-05	UNKNOWN-05	ug/kg		
Unknown-06	UNKNOWN-06	ug/kg		
Unknown-07	UNKNOWN-07	ug/kg		
Unknown-08	UNKNOWN-08	ug/kg		
Unknown-09	UNKNOWN-09	ug/kg		
Unknown-10	UNKNOWN-10	ug/kg		
Unknown-11	UNKNOWN-11	ug/kg		
Unknown-12	UNKNOWN-12	ug/kg		
Unknown-13	UNKNOWN-13	ug/kg		
Unknown-14	UNKNOWN-14	ug/kg		
Unknown-15	UNKNOWN-15	ug/kg		
Unknown-16	UNKNOWN-16	ug/kg		
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg		
Solids, Percent	SOLID	%		
TPH, HEM-SGT	TPHNONPOLAR	mg/kg		

J The associated value is an estimated quantity.
NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4-6
Correlating LIF, TPH, Total SVOCs, SVOC TICs, and NAPL Obervations
GCL Tie and Treating Superfund Site
Sidney, New York

Sample ID	Total SVOCs (mg/Kg)	Total SVOC TICs (mg/Kg)	Sum of SVOCs and SVOC TICs (mg/Kg)	TPH (mg/Kg)	NAPL	Sheen	LIF Response (%)
SB-BR-03-09-10	16,360	554.200	16,914	NS	X		
SB-BR-03-33-34	15,970	503.500	16,474	18,100	X		
SB-BR-02-26-27	13,220	1.556	13,222	NS	X		
SB-BR-LIF18-20-21	8,509	1,171.530	9,681	NS		X	74.00
SB-BR-02-07-08	6,800	3,869.063	10,669	NS	X		
SB-BR-03-28-29	5,884	306.300	6,190	NS	X		
SB-BR-LIF22-19-20	5,004	568.071	5,572	719	X		58.00
SB-BR-05-57-58	4,112	68.070	4,180	NS	X		
SB-BR-LIF18-12-13	2,927	1,826.390	4,754	6,200	X	X	73.00
SB-BR-02-13-14	1,745	4.704	1,750	703			
SB-BR-LIF22-48-49	1,528	63.378	1,591	ND	X		56.60
SB-BR-05-44-45	964	215.500	1,179	NS			
SB-BR-05-38-39	722	1.510	723	2,470	X		
SB-BR-02-17-18	543	3.312	546	ND			
SB-BR-01-19-20	468	1.444	469	NS			
SB-BR-05-10-11	89	0.300	90	NS			
SB-BR-LIF22-15-16	74	2.158	76	NS	X		27.00
SB-BR-LIF16-08-09	43	-	43	NS			3.40
SB-BR-LIF18-09-10	42	0.548	43	NS	X	X	36.00
SB-BR-03-37-38	35	1.932	37	NS			
SB-BR-06-00-05	24	-	24	NS			
SB-BR-LIF22-02-03	17	0.021	17	NS			15.00
SB-BR-LIF16-01-02	11	0.027	11	NS			5.30
SB-BR-LIF22-59-60	11	1.219	12	NS			
SB-BR-01-09-10	11	0.016	11	NS			2.50
SB-BR-02-21-22	9.2	1.966	11	NS			
SB-BR-LIF22-10-11	6.9	0.026	7.0	NS			0.00
SB-BR-03-15-16	6.1	2.407	8.5	NS			
SB-BR-LIF18-25-26	5.8	0.382	6.2	NS			1.50
SB-BR-07-19-20	2.3	-	2.3	NS			
SB-BR-LIF18-31-32	1.4	-	1.4	ND			14.00
SB-BR-02-60-61	1.0	0.101	1.1	NS			
SB-BR-03-47-48	0.9	0.299	1.2	NS			
SB-BR-07-29-30	0.8	0.041	0.8	NS			
SB-BR-02-32-33	0.8	1.623	2.4	NS			
SB-BR-10-37-38	0.6	0.820	1.4	ND			
SB-BR-LIF22-39-40	0.5	0.293	0.8	NS			0
SB-BR-LIF22-29-30	0.4	1.877	2.3	NS			<1
SB-BR-02-74-75	0.3	0.063	0.4	NS			
SB-BR-05-33-34	0.2	-	0.2	NS			
SB-BR-06-64-65	0.2	-	0.2	NS			
SB-BR-04-106-107	0.2	-	0.2	NS			
SB-BR-10-47-48	0.2	0.056	0.2	NS			
SB-BR-05-25-26	0.2	-	0.2	NS			
SB-BR-05-66-67	0.2	-	0.2	NS			
SB-BR-10-57-58	0.1	0.006	0.1	NS			
SB-BR-10-12-13	0.1	0.007	0.1	NS			
SB-BR-03-58-59	0.1	-	0.1	NS			
SB-BR-LIF18-53-54	0.1	-	0.1	NS			<1
SB-BR-04-82-83	0.1	-	0.1	NS			
SB-BR-01-60-61	0.1	0.007	0.1	NS			
SB-BR-01-67-68	0.1	0.014	0.1	NS			
SB-BR-01-29-30	0.1	-	0.1	NS			

Note:
Confirmed/Probable NAPL
NS = No Sample Collected at this Depth
TPH=Total Petroleum Hydrocarbons
SVOCs=Semi-Volatile Organic Compounds
NAPL=Non-Aqueous Phase Liquid
LIF-Laser Induced Fluroesence
ND=Non-Detect

Table 4-7
Temporary Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22
Start Depth (ft):			10	20	30	40	50	60	70	90	105
Sample:			GW-SB-MW-22-10	GW-SB-MW-22-20	GW-SB-MW-22-30	GW-SB-MW-22-40	GW-SB-MW-22-50	GW-SB-MW-22-60	GW-SB-MW-22-70	GW-SB-MW-22-90	GW-SB-MW-22-105
Analyte	**CAS**	**Units**									
1,1,1-Trichloroethane	71-55-6	ug/l								5.1	5.6
1,1-Dichloroethane	75-34-3	ug/l								3.4	5.2
1,1-Dichloroethene	75-35-4	ug/l									
1,2,4-Trimethylbenzene	95-63-6	ug/l		3.3	3	6.8	2.7	1.3 J	0.36 J		
1,2-Dichloroethane	107-06-2	ug/l									
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l				1.8 J					0.36 J
2-Butanone	78-93-3	ug/l									
Acetone	67-64-1	ug/l									
Benzene	71-43-2	ug/l		4.1	1.6 J	2.1 J	11	4.2			
Carbon Disulfide	75-15-0	ug/l									
Chloroform	67-66-3	ug/l									
Chloromethane	74-87-3	ug/l									
cis-1,2-Dichloroethene	156-59-2	ug/l								16	21
Dibromochloromethane	124-48-1	ug/l									
Ethylbenzene	100-41-4	ug/l		3.8	3.7	5.5	3.2	1.9 J	0.2 J		
Isopropylbenzene	98-82-8	ug/l				0.35 J	1.5 J	0.55 J			0.16 J
M, P Xylenes	179601-23-1	ug/l		5.1	3.8	12	5.4				1
Methyl tert-Butyl Ether	1634-04-4	ug/l									
Methylene Chloride	75-09-2	ug/l									
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l		6.1	4.1	7.6	11	3.9	0.3 J		1.1
Styrene	100-42-5	ug/l			0.7 J						
Toluene	108-88-3	ug/l	12	14	9.4	42	8.7	11	4.1	1.3	2
trans-1,2-Dichloroethene	156-60-5	ug/l								1.4	
Trichloroethene (TCE)	79-01-6	ug/l								4.4	4.3
Vinyl Chloride	75-01-4	ug/l									2.5
Total VOC TICs			**31.1**	**211.65**	**185.6**	**288.2**	**179.1**	**123.45**	**46.86**	**3.16**	**40.7**
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/l									
(E)-Tetradec-2-enal	51534-36-2	ug/l									
1,2,3,4-Tetramethylbenzene	488-23-3	ug/l									
1,2,3,5-Tetramethylbenzene	527-53-7	ug/l									
1,2,3-Trimethyl Benzene	526-73-8	ug/l					0.5 NDJ				
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l									
1,2-Dimethylindan	17057-82-8	ug/l									
1,3,8-P-Menthatriene	21195-59-5	ug/l									
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene	76089-59-3	ug/l									
1,3-Dimethylnaphthalene	575-41-7	ug/l									
1,4-Dihydro-1,4-Methanonaphthalene	4453-90-1	ug/l									
1,4-DIHYDRONAPHTHALENE	612-17-9	ug/l									
1,5-Dimethyl Naphthalene	571-61-9	ug/l									
1,7-Dimethyl Naphthalene	575-37-1	ug/l									
1-CYCLOPROP-2-EN-1-YL-2-METHYLBENZENE	65051-83-4	ug/l					1 NDJ				0.18 NDJ
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/l					2.1 NDJ	0.65 NDJ			
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l	0.4 NDJ	0.35 NDJ	0.55 NDJ						
1-Ethyl Naphthalene	1127-76-0	ug/l									0.2 NDJ
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/l									0.16 NDJ
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l			0.3 NDJ	0.5 NDJ	0.95 NDJ	1.2 NDJ			0.2 NDJ
1-ethylidene- Indene	2471-83-2	ug/l			1.8 NDJ						
1-Ethyltoluene	611-14-3	ug/l				1.3 NDJ					0.24 NDJ
1-Ethynyl-4-Methylbenzene	766-97-2	ug/l									
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/l									
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l							0.18 NDJ		
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/l									
1h-Indene, 2,3-Dihydro-2,2-Dimethyl-	824-63-5	ug/l									
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/l									
1H-Indene, Octahydro-, cis-	824-22-6	ug/l	0.25 NDJ		1.2 NDJ	1.2 NDJ			0.38 NDJ		0.52 NDJ
1-Methyl-1-Cyclohexene	1587-04-8	ug/l							0.18 NDJ		
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/l									
1-Methylindan	767-58-8	ug/l									0.8 NDJ
1-Methylindene	767-59-9	ug/l				1.5 NDJ					
1-methylnaphthalene	90-12-0	ug/l				4.3 NDJ		1.2 NDJ		0.24 NDJ	
1-Pentenylbenzene	824-90-8	ug/l				0.95 NDJ					
1-Phenyl-1-Propyne	673-32-5	ug/l									
2-(2-Hydroxyphenyl)buta-1,3...	38865-47-3	ug/l				0.4 NDJ					
2,3-Benzofuran	271-89-6	ug/l		5.7 NDJ		4.9 NDJ		1.1 NDJ			0.5 NDJ
2,3-Dihydro-1h-Indene	496-11-7	ug/l	1.4 NDJ	19 NDJ	19 NDJ	27 NDJ	22 NDJ	11 NDJ	1.7 NDJ		3.4 NDJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l									
2,6-Dimethyl-Napthalene	581-42-0	ug/l									0.4 NDJ
2,7-Dimethyl Naphthalene	582-16-1	ug/l									0.34 NDJ
2a,4a,6a,6b-Tetrahydrocyclo...	6053-74-3	ug/l				0.7 NDJ					
2-Decenal, (Z)-	2497-25-8	ug/l									
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/l									
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/l									
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/l									
2-METHYLBENZOFURAN	4265-25-2	ug/l		2.4 NDJ			11 NDJ	5.3 NDJ	0.28 NDJ		1.1 NDJ
2-METHYLINDENE	2177-47-1	ug/l									
2-Methylnaphthalene	91-57-6	ug/l	3.8 NDJ	2.4 NDJ	2.9 NDJ	7.3 NDJ	4.5 NDJ	1.9 NDJ	4.3 NDJ		2.6 NDJ
2-Octenal, (E)-	2548-87-0	ug/l									
3,5-Dimethyl-1-Ethylbenzene	934-74-7	ug/l				0.4 NDJ					

J The value is an estimated quantity.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-7
Temporary Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22
			Start Depth (ft):	10	20	30	40	50	60	70	90	105
			Sample:	GW-SB-MW-22-10	GW-SB-MW-22-20	GW-SB-MW-22-30	GW-SB-MW-22-40	GW-SB-MW-22-50	GW-SB-MW-22-60	GW-SB-MW-22-70	GW-SB-MW-22-90	GW-SB-MW-22-105
3a,6-Methano-3aH-indene, 2,...	98640-29-0	ug/l										
3-Hydroxyphenylacetylene	10401-11-3	ug/l										
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l										
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/l										
3-phenyl-2-propenal	104-55-2	ug/l			3.2 NDJ							
3-Phenyl-2-propyn-1-ol	1504-58-1	ug/l										
3-Phenylbut-1-ene	934-10-1	ug/l										
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/l										
4-Ethyltoluene	622-96-8	ug/l						1.7 NDJ				
5-Methylbenzimidazole	614-97-1	ug/l										
Azulene	275-51-4	ug/l										
Benzene, (1-methyl-1-propen... (02)	767-99-7	ug/l							1.5 NDJ			
BENZENE, (1-METHYL-1-PROPENYL)-, (E)-	768-00-3	ug/l		0.25 NDJ					0.5 NDJ			
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/l										
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/l										
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/l										
Benzene, 2-Butenyl	1560-06-1	ug/l					2.3 NDJ	4.7 NDJ				
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l		0.85 NDJ				1.4 NDJ				0.7 NDJ
Benzo[b]thiophene	95-15-8	ug/l		5.4 NDJ			8.2 NDJ					
Benzo[C]Thiophene	270-82-6	ug/l			4.9 NDJ			8.6 NDJ	4 NDJ			1.3 NDJ
BENZOCYCLOHEPTATRIENE	264-09-5	ug/l										
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l		1.1 NDJ	1.3 NDJ	2.4 NDJ		4.3 NDJ				
Biphenyl (Diphenyl)	92-52-4	ug/l										
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l								0.52 NDJ		
Cymene	99-87-6	ug/l						0.3 NDJ				
Decyl Aldehyde	112-31-2	ug/l										
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l										
Ethyl Acetate	141-78-6	ug/l										
Ethyl Naphthalene; 2-	939-27-5	ug/l										
Furan, 2-pentyl-	3777-69-3	ug/l								0.66 NDJ		
Heptanal	111-71-7	ug/l		0.9 NDJ	2.2 NDJ			1.2 NDJ				
Hexanal	66-25-1	ug/l	3.2 NDJ		13 NDJ	9.9 NDJ	7.1 NDJ	15 NDJ	4.3 NDJ			
Indene	95-13-6	ug/l		21 NDJ	16 NDJ	33 NDJ	30 NDJ	15 NDJ	0.88 NDJ			3.7 NDJ
M-Cymene	535-77-3	ug/l										
Naphthalene	91-20-3	ug/l	9.1 NDJ	130 NDJ	86 NDJ	150 NDJ	56 NDJ	32 NDJ	12 NDJ	0.72 NDJ		19 NDJ
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/l										0.4 NDJ
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l										
NAPHTHALENE, 2-ETHENYL-	827-54-3	ug/l										
N-Butyraldehyde	123-72-8	ug/l										
Nonanol	124-19-6	ug/l	3.2 NDJ	3.6 NDJ	12 NDJ	11 NDJ	7 NDJ	12 NDJ	9.2 NDJ			0.6 NDJ
Octanal	124-13-0	ug/l		2.2 NDJ	5.7 NDJ	6 NDJ	2.8 NDJ	5.1 NDJ	5 NDJ	0.14 NDJ		
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/l										
Propylene	115-07-1	ug/l	1.8 NDJ	3.6 NDJ	4 NDJ		2.5 NDJ	4.1 NDJ	0.38 NDJ			
Total Alkane Tics	E966796	ug/l			2 DJ	0.8 DJ	0.95 DJ	1.7 DJ				
Unknown-01	UNKNOWN-01	ug/l	0.4 DJ	0.3 DJ	1.4 BDJ	2.5 DJ	1.2 BDJ	1.1 BDJ	0.36 BDJ	0.18 DJ	0.84 DJ	
Unknown-02	UNKNOWN-02	ug/l	1.1 BDJ	1.2 BDJ	0.6 DJ	1.2 BDJ	0.5 DJ	0.35 DJ	0.62 DJ	0.1 BDJ	0.6 DJ	
Unknown-03	UNKNOWN-03	ug/l	0.5 DJ	0.65 DJ	0.4 DJ	1.1 DJ	0.55 DJ	0.45 DJ	0.32 NDJ	0.56 DJ	0.18 BDJ	
Unknown-04	UNKNOWN-04	ug/l	0.45 DJ	0.3 DJ	1.1 DJ	2.1 DJ	1.6 NDJ	1.2 DJ	1.1 DJ	0.22 DJ	0.14 DJ	
Unknown-05	UNKNOWN-05	ug/l	0.25 DJ	0.25 DJ	0.35 NDJ	6 NDJ	1.2 DJ	0.3 DJ	0.22 DJ	0.16 DJ	0.26 DJ	
Unknown-06	UNKNOWN-06	ug/l	0.3 DJ	0.5 DJ	0.75 DJ	0.9 DJ	0.65 DJ	1.9 DJ	0.2 DJ	0.3 DJ	0.6 NDJ	
Unknown-07	UNKNOWN-07	ug/l	0.7 DJ	6.6 DJ	3.1 NDJ	0.35 DJ	2.8 NDJ	0.35 DJ	0.18 DJ	0.54 DJ	0.14 DJ	
Unknown-08	UNKNOWN-08	ug/l	0.45 NDJ	0.25 DJ	0.5 NDJ			1.8 NDJ	0.14 DJ		1.1 NDJ	
Unknown-09	UNKNOWN-09	ug/l	2.4 DJ	0.25 DJ	0.5 DJ			0.3 DJ	0.16 DJ		0.5 DJ	
Unknown-10	UNKNOWN-10	ug/l	1.4 NDJ	0.35 DJ	0.85 DJ			0.45 DJ	1.3 DJ			
Unknown-11	UNKNOWN-11	ug/l		0.55 DJ				2 DJ	1.7 NDJ			
Unknown-12	UNKNOWN-12	ug/l		1.7 NDJ					0.18 DJ			
Unknown-13	UNKNOWN-13	ug/l							0.26 DJ			
Unknown-14	UNKNOWN-14	ug/l							0.16 DJ			
Unknown-15	UNKNOWN-15	ug/l										
Unknown-16	UNKNOWN-16	ug/l										
Unknown-17	UNKNOWN-17	ug/l										
Unknown-18	UNKNOWN-18	ug/l										

J The value is an estimated quantity.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	PZ-03S	MW-01S	MW-02S	MW-07S	PZ-01I	EW-1I	EW-2I	EW-3I	EW-4I	EW-5I
			Shallow	Shallow	Shallow	Shallow	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
		SYS_SAMPLE_CODE	PZ-03S-20221116	MW-01S-20221114	MW-02S-20221117	MW-07S-20221121	PZ-01I-20221121	EW-1I-20221118	EW-2I-20221118	EW-3I-20221118	EW-4I-20221116	EW-5I-20221117
Analyte	**CAS**	**Units**										
Aluminum	7429-90-5	ug/l										
Arsenic	7440-38-2	ug/l										
Barium	7440-39-3	ug/l										
Calcium	7440-70-2	ug/l										
Chromium, Total	7440-47-3	ug/l										
Iron	7439-89-6	ug/l										
Magnesium	7439-95-4	ug/l										
Manganese	7439-96-5	ug/l										
Potassium	7440-09-7	ug/l										
Sodium	7440-23-5	ug/l										
Zinc	7440-66-6	ug/l										
Total BTEX			***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***32.52***	***0.44***	***0.00***	***6.45***	***1.10***
1,1,1-Trichloroethane	71-55-6	ug/l		10			16	0.26 J	2.3			0.17 J
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l					0.34 J					
1,1-Dichloroethane	75-34-3	ug/l		5.1			12	13	2.5		3	4.4
1,1-Dichloroethene	75-35-4	ug/l		2.6			5.2	4.2	0.94		1	0.57
1,2,4-Trimethylbenzene	95-63-6	ug/l						2				
1,2-Dichloroethane	107-06-2	ug/l		0.34 J			1.1	0.75	0.13 J			0.2 J
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l										
Benzene	71-43-2	ug/l						15	0.28 J		5.7	1.1
Carbon Disulfide	75-15-0	ug/l			0.57							0.33 J
Chlorobenzene	108-90-7	ug/l						0.1 J				0.04 J
Chloroethane	75-00-3	ug/l										
Chloroform	67-66-3	ug/l		0.25 J								
cis-1,2-Dichloroethene	156-59-2	ug/l		22			31	34	5.7		5.9	6.5
Dichlorodifluoromethane	75-71-8	ug/l										
Ethylbenzene	100-41-4	ug/l						0.42 J	0.04 J			
Isopropylbenzene	98-82-8	ug/l						7.4			9.2	0.56
M, P Xylenes	179601-23-1	ug/l						3.6	0.05 J		0.18 J	
Methyl tert-Butyl Ether	1634-04-4	ug/l					0.12 J	0.14 J				
Methylcyclohexane	108-87-2	ug/l						0.14 J				
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l						12	0.07 J		0.57	
Styrene	100-42-5	ug/l										
Toluene	108-88-3	ug/l						1.5				
trans-1,2-Dichloroethene	156-60-5	ug/l		0.15 J				0.38 J				
Trichloroethene (TCE)	79-01-6	ug/l		8.4			10	15	5.7		0.7	1.1
Vinyl Chloride	75-01-4	ug/l					5.4	0.14 J				2.4
Total SVOCs			**0**	**3**	**0**	**0**	**9.3**	**30**	**1.1**	**0**	**7.4**	**1.3**
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l		3			9.3	3	1.1 J		1.3 J	1.3 J
1-methylnaphthalene	90-12-0	ug/l						12				
2,4-Dimethylphenol	105-67-9	ug/l										
2-Methylnaphthalene	91-57-6	ug/l										
Acenaphthene	83-32-9	ug/l						4.7 J			6.1	
Acenaphthylene	208-96-8	ug/l										
Anthracene	120-12-7	ug/l										
Biphenyl (Diphenyl)	92-52-4	ug/l						7.6				
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l										
Carbazole	86-74-8	ug/l										
Dibenzofuran	132-64-9	ug/l										
Fluoranthene	206-44-0	ug/l										
Fluorene	86-73-7	ug/l										
Naphthalene	91-20-3	ug/l						2.7 J				
Phenanthrene	85-01-8	ug/l										
Pyrene	129-00-0	ug/l										

J The associated value is an estimated quantity.
N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE	PZ-03S	MW-01S	MW-02S	MW-07S	PZ-01I	EW-1I	EW-2I	EW-3I	EW-4I	EW-5I
	SYS_SAMPLE_CODE	Shallow PZ-03S-20221116	Shallow MW-01S-20221114	Shallow MW-02S-20221117	Shallow MW-07S-20221121	Intermediate PZ-01I-20221121	Intermediate EW-1I-20221118	Intermediate EW-2I-20221118	Intermediate EW-3I-20221118	Intermediate EW-4I-20221116	Intermediate EW-5I-20221117
Analyte	**CAS** **Units**										
	Total VOC TICs	***1.00***	***4.10***	***44.67***	***0.55***	***2.72***	***515.20***	***3.30***	***0.00***	***249.01***	***117.37***
1,4-Dihydronaphthalene	000612-17-9 ug/l										0.7 JN
1H-Indazole, 3,6-dimethyl-	007746-28-3 ug/l									2.2 JN	
1H-Indazole, 5,7-dimethyl-	043067-41-0 ug/l									4.1 JN	
1H-Indene, 1-methylene-	002471-84-3 ug/l										
1H-Indene, 2,3-Dihydro-1,1-Dimethyl-	017059-48-2 ug/l									0.64 JN	
1H-Indene, 2,3-Dihydro-2-Me...	006682-71-9 ug/l									2.1 JN	
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6 ug/l						2.3 JN				
1H-Indene, 2,3-dihydro-5-methyl-	000874-35-1 ug/l										
1H-Indene, 2,3-dihydro-4,6-dimethy	001685-82-1 ug/l										
1H-Pyrrolo[2,3-b]pyridine, 2-methy	023612-48-8 ug/l										
2-(2-Hydroxyphenyl)buta-1,3-diene	038865-47-3 ug/l										1.2 JN
2H-Cyclopenta[d]pyridazine	000270-64-4 ug/l										
2-Methylindene	002177-47-1 ug/l										
2-Propenal, 3-phenyl-	000104-55-2 ug/l										
3-Buten-2-one, 4-phenyl-	000122-57-6 ug/l										
3-Fluoro-para-anisaldehyde	000351-54-2 ug/l										
3-Methylphenylacetylene	000766-82-5 ug/l									2.1 JN	
4-Aminobenzyl cyanide	003544-25-0 ug/l										1.4 JN
4-Methyl-1H-benzimidazole	1000486-24-5 ug/l										3.1 JN
Azulene	000275-51-4 ug/l						5.4 JN				
Benzene, (1-butylheptyl)-	004537-15-9 ug/l										5.6 JN
Benzene, (1-butylhexyl)-	004537-11-5 ug/l			0.62 JN							1 JN
Benzene, (1-ethylnonyl)-	004536-87-2 ug/l			0.88 JN							2.1 JN
Benzene, (1-ethyloctyl)-	004621-36-7 ug/l			1.4 JN							2.4 JN
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4 ug/l										
Benzene, (1,2-dimethyl-1-propenyl)	000769-57-3 ug/l										
Benzene, (1-methylnonyl)-	004537-13-7 ug/l			0.73 JN							1.7 JN
Benzene, (1-pentylhexyl)-	004537-14-8 ug/l			0.67 JN							1.7 JN
Benzene, (1-propylheptyl)-	004537-12-6 ug/l										1.1 JN
Benzene, (1-propylnonyl)-	002719-64-4 ug/l			0.67 JN							
Benzene, (1-propyloctyl)-	004536-86-1 ug/l			1.3 JN							3 JN
Benzene, (2-methyl-1-butenyl)-	056253-64-6 ug/l										
Benzene, (3-methyl-2-butenyl)-	004489-84-3 ug/l									1.7 JN	
Benzene, 1,2,3,5-tetramethyl-	000527-53-7 ug/l										
Benzene, 1,2,3-trimethyl-	000526-73-8 ug/l						8.9 JN				
Benzene, 1,2,4,5-Tetramethyl-	000095-93-2 ug/l						10 JN				
Benzene, 1-Ethenyl-3-Ethyl-	007525-62-4 ug/l						25 JN				
Benzene, 1-ethenyl-3-methyl-	000100-80-1 ug/l										
Benzene, 1-ethenyl-4-ethyl-	003454-07-7 ug/l										
Benzene, 1-ethyl-2,4-dimethyl-	000874-41-9 ug/l										
Benzene, 1-ethyl-2-methyl-	000611-14-3 ug/l						5.5 JN			1.3 JN	
Benzene, 1-ethyl-3-methyl-	000620-14-4 ug/l										
Benzene, 1-ethyl-4-methyl-	000622-96-8 ug/l										
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4 ug/l						4.7 JN				
Benzene, 1-pentenyl-	000826-18-6 ug/l									1.1 JN	
Benzene, 1-propynyl-	000673-32-5 ug/l						1.3 JN				
Benzene, 2-ethenyl-1,3,5-trimethyl	000769-25-5 ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6 ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6 ug/l										
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6 ug/l						1.9 JN			1.1 JN	1 JN
Benzo[b]thiophene, 2-methyl-	001195-14-8 ug/l										
Benzo[b]thiophene, 5-methyl-	014315-14-1 ug/l						3 JN				
Benzo[b]thiophene, 6-methyl-	016587-47-6 ug/l									2.5 JN	
Benzo[c]thiophene	000270-82-6 ug/l						63 JN			58 JN	16 JN
Benzofuran	000271-89-6 ug/l										
Benzofuran, 2-methyl-	004265-25-2 ug/l						29 JN			32 JN	9.8 JN
Benzofuran, 4,7-dimethyl-	028715-26-6 ug/l										0.57 JN
Benzofuran, 7-methyl-	017059-52-8 ug/l						64 JN			59 JN	1.8 JN
Benzonitrile, 4-(dimethylamino)-	001197-19-9 ug/l										
Cinnamaldehyde, (E)-	014371-10-9 ug/l						4.8 JN			9 JN	
Cycloprop[a]indene, 1,1a,6,6a-tetr	015677-15-3 ug/l						1.6 JN			1.5 JN	
Dodecanal	000112-54-9 ug/l			7.2 JN							8.5 JN
Dodecane, 1-chloro-	000112-52-7 ug/l			13 JN							17 JN
Ethane, 1-chloro-1,1-difluoro-	000075-68-3 ug/l		2.5 JN			2.1 JN	4.8 JN	1.2 JN		0.87 JN	
Indan, 1-methyl-	000767-58-8 ug/l									50 JN	3.8 JN
Indane	000496-11-7 ug/l						21 JN	0.7 JN		5.7 JN	1.8 JN
Indene	000095-13-6 ug/l						120 JN			6.3 JN	
Naphthalene, 1,2,3,4-tetrahydro-	000119-64-2 ug/l						9 JN			1.5 JN	
Naphthalene, 2,3-dimethyl-	000581-40-8 ug/l										
Naphthalene, 1,3-dimethyl-	000575-41-7 ug/l										
Naphthalene, 1-ethyl-	001127-76-0 ug/l										
Naphthalene, 2,6-dimethyl-	000581-42-0 ug/l										
Naphthalene, 2,7-dimethyl-	000582-16-1 ug/l										
Naphthalene, 2-ethenyl-	000827-54-3 ug/l										
Naphthalene, 2-ethyl-	000939-27-5 ug/l										
Pentadecanal-	002765-11-9 ug/l										
Sulfur dioxide	007446-09-5 ug/l	1 JN	1.6 JN		0.55 JN						
Tetradecanal	000124-25-4 ug/l										
Tetradecane, 1-chloro-	002425-54-9 ug/l			1.6 JN							2.1 JN
Total Alkane Tics	E966796 ug/l			13		0.62	130	1.4		6.3	30

J The associated value is an estimated quantity.
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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE	PZ-03S Shallow	MW-01S Shallow	MW-02S Shallow	MW-07S Shallow	PZ-01I Intermediate	EW-1I Intermediate	EW-2I Intermediate	EW-3I Intermediate	EW-4I Intermediate	EW-5I Intermediate
	SYS_SAMPLE_CODE	PZ-03S-20221116	MW-01S-20221114	MW-02S-20221117	MW-07S-20221121	PZ-01I-20221121	EW-1I-20221118	EW-2I-20221118	EW-3I-20221118	EW-4I-20221116	EW-5I-20221117
Analyte	**CAS**	**Units**									
Tridecanal	010486-19-8	ug/l									
Unknown-01	UNKNOWN-01	ug/l			3.6 J						
	Total SVOC TICs	**0**	**0**	**0**	**55**	**2**	**279.4**	**0**	**0**	**277.6**	**20.2**
1(2H)-Acenaphthylenone	002235-15-6	ug/l									
1(2H)-Quinolinecarboxaldehyde, 3,4	002739-16-4	ug/l								7.6 JN	
1-Acenaphthenol	006306-07-6	ug/l									
1-Hexanol, 2-ethyl-	000104-76-7	ug/l									
1H-Inden-1-ol, 2,3-dihydro-	006351-10-6	ug/l									
1H-Inden-1-one, 2,3-dihydro-	000083-33-0	ug/l									
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6	ug/l									
1H-Indene-2-carboxylic acid	041712-14-5	ug/l									
1H-Indenol	056631-57-3	ug/l									
1H-Isoindole, 3-methoxy-4,7-dimeth	100813-60-3	ug/l					2.5 JN				
1-Isopropenylnaphthalene	001855-47-6	ug/l									
1-Naphthalenamine, 5,6,7,8-tetrahy	013541-35-0	ug/l									
1-Naphthalenemethanol	004780-79-4	ug/l									
1-Naphthalenol, 2-amino-	000606-41-7	ug/l								16 JN	
2(1H)-Quinolinone, 3-methyl-	002721-59-7	ug/l					14 JN				2.7 JN
2(1H)-Quinolinone, 4,6-dimethyl-	023947-37-7	ug/l								3.1 JN	
2(1H)-Quinolinone, 4,8-dimethyl-	005349-78-0	ug/l									
2(1H)-Quinolinone, 4-methyl-	000607-66-9	ug/l					22 JN			23 JN	
2,3-Dimethylquinolin-4(1H)-one	058596-45-5	ug/l									
2,4,7,9-Tetramethyl-5-decyn-4,7-di	000126-86-3	ug/l									
2,6-Lutidine	000108-48-5	ug/l									
2-Indolinone, ethyl ether	1000453-17-4	ug/l									
2-Methylindene	002177-47-1	ug/l									
2-Naphthalenecarbonitrile	000613-46-7	ug/l					4.4 JN				
2-Naphthalenol, 5-amino-	000086-97-5	ug/l									
2-Propenal, 3-phenyl-	000104-55-2	ug/l								15 JN	
3-(Carboxymethyl)benzoic acid	1000481-02-3	ug/l								77 JN	
3,4-Dihydrocyclopenta[b]indol-1(2H	1000305-37-5	ug/l								2.1 JN	
3,4-Methylenedioxyphenylacetic aci	002861-28-1	ug/l									
3-Methylbenzothiophene	001455-18-1	ug/l					5.7 JN				
3-Methylphenylacetylene	000766-82-5	ug/l									
3-Phenyl-2-propyn-1-ol	001504-58-1	ug/l					8.3 JN			11 JN	
4H-Benzo[def]carbazole	000203-65-6	ug/l									
4H-Cyclopenta[Def]Phenanthrene	000203-64-5	ug/l									
4-Methyl-1H-benzimidazole	1000486-24-5	ug/l									
4-Methylcarbazole	003770-48-7	ug/l									
4-Quinolinol, 2-methyl-	000607-67-0	ug/l									
5-Amino-1-naphthol	000083-55-6	ug/l					6.5 JN				
5-Aminoindan	024425-40-9	ug/l					5.3 JN				2.8 JN
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	ug/l									
7-Methyl-1(2H)-isoquinolinone	026829-47-0	ug/l					3.6 JN			3.6 JN	
8-Methylquinolin-2(1H)-one	1000502-93-2	ug/l					7 JN				
9H-Fluoren-3-ol	006344-67-8	ug/l									
9H-Fluorene, 2-methyl-	001430-97-3	ug/l									
9-Octadecenamide, (Z)-	000301-02-0	ug/l				11 JN					
1-Isobutoxy-2-ethylhexane	1000139-90-3	ug/l									
2,4,6-Cycloheptatrien-1-one, 2-phe	014562-09-5	ug/l									
2-Dibenzofuranol	000086-77-1	ug/l									
3-Hydroxybiphenyl	000580-51-8	ug/l									
3-Phenylbut-1-ene	000934-10-1	ug/l									
9,12-Octadecadienoic acid (Z,Z)-	000060-33-3	ug/l									
9,17-Octadecadienal, (Z)-	056554-35-9	ug/l									
Adamantane-1-carboxylic acid	000828-51-3	ug/l									
Anthracene, 1-methyl-	000610-48-0	ug/l									
Anthracene, 9,10-dihydro-	000613-31-0	ug/l									
Benzene, (1-ethylpropyl)-	001196-58-3	ug/l									
Benzene, 1,1-(bromomethylene)bis-	000776-74-9	ug/l									
Benzene, 1,2,3,4-tetramethyl-	000488-23-3	ug/l									
Benzene, 1,2,3-trimethyl-	000526-73-8	ug/l					3.4 JN				
Benzene, 1,3-Dimethyl-	000108-38-3	ug/l									
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l									
Benzene, 1-ethyl-3-methyl-	000620-14-4	ug/l									
Benzene, 1-ethyl-4-methyl-	000622-96-8	ug/l					2.1 JN				
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4	ug/l					3.7 JN				
Benzene, 1-propynyl-	000673-32-5	ug/l								5.1 JN	
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l									
Benzene, 4-ethyl-1,2-dimethyl-	000934-80-5	ug/l					2.4 JN				
Benzene, cyclopropyl-	000873-49-4	ug/l								2.6 JN	
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6	ug/l					7.9 JN			6.4 JN	
Benzo[b]thiophene, 2-methyl-	001195-14-8	ug/l									
Benzo[b]thiophene, 4-methyl-	014315-11-8	ug/l								8 JN	
benzo[b]thiophene-5-carboxylic aci	1000404-77-7	ug/l								4.7 JN	
Benzo[c]thiophene	000270-82-6	ug/l									
Benzo[c]thiophene, 1,3-dihydro-	002471-92-3	ug/l									5.1 JN
Benzofuran, 2-methyl-	004265-25-2	ug/l					22 JN			46 JN	2.7 JN
Benzophenone	000119-61-9	ug/l									
Butanoic acid	000107-92-6	ug/l				4 JN					
Butoxyacetic acid	002516-93-0	ug/l				24 JN					

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			SYS_LOC_CODE	PZ-03S	MW-01S	MW-02S	MW-07S	PZ-01I	EW-1I	EW-2I	EW-3I	EW-4I	EW-5I
			SYS_SAMPLE_CODE	Shallow PZ-03S-20221116	Shallow MW-01S-20221114	Shallow MW-02S-20221117	Shallow MW-07S-20221121	Intermediate PZ-01I-20221121	Intermediate EW-1I-20221118	Intermediate EW-2I-20221118	Intermediate EW-3I-20221118	Intermediate EW-4I-20221116	Intermediate EW-5I-20221117
Analyte	**CAS**	**Units**											
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4	ug/l											
Benzene, 1-ethenyl-4-ethyl-	003454-07-7	ug/l											
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l											
Benzenesulfonamide, N,4-dimethyl-	000640-61-9	ug/l											
Benzofuran	000271-89-6	ug/l											
Benzofuran, 2-methyl-	004265-25-2	ug/l											
Benzofuran, 7-methyl-	017059-52-8	ug/l											
Benzonitrile, 3-methyl-	000620-22-4	ug/l											
Benzonitrile, 4-methyl-	000104-85-8	ug/l											
Cinnamaldehyde, (E)-	014371-10-9	ug/l							32 JN				6.9 JN
Dibenzofuran, 4-methyl-	007320-53-8	ug/l											
Dibenzothiophene	000132-65-0	ug/l											
Dichloroacetic acid, heptadecyl es	1000282-98-2	ug/l						2 JN					
Dibenzofuran, 4-methyl-	007320-53-8	ug/l											
Diphenylmethane	000101-81-5	ug/l											
Ethanone, 1-(2,3,4-trihydroxypheny	000528-21-2	ug/l											
Fluorene-4-carboxylic acid	006954-55-8	ug/l											
Indane	000496-11-7	ug/l							7.9 JN				
Indane-5-carboxylic acid	065898-38-6	ug/l											
Indene	000095-13-6	ug/l							82 JN				
Isoquinoline	000119-65-3	ug/l											
Isoquinoline, 5,6,7,8-tetrahydro-	036556-06-6	ug/l							31 JN			37 JN	
Methylchromone	000085-90-5	ug/l											
Naphthalene, 1,3-dimethyl-	000575-41-7	ug/l											
Naphthalene, 1,7-dimethyl-	000575-37-1	ug/l											
Naphthalene, 2,3-dimethyl-	000581-40-8	ug/l											
Naphthalene, 2,6-dimethyl-	000581-42-0	ug/l											
n-Hexadecanoic acid	000057-10-3	ug/l					3 JN						
Naphthalene, 1,6-dimethyl-	000575-43-9	ug/l											
Naphthalene, 1-ethyl-	001127-76-0	ug/l											
Octadecanoic acid	000057-11-4	ug/l											
o-Hydroxybiphenyl	000090-43-7	ug/l											
Pyridine, 2,3-dimethyl-	000583-61-9	ug/l											
Pyridine, 2-ethyl-6-methyl-	001122-69-6	ug/l											
Pyridine, 2-methyl-	000109-06-8	ug/l											
Pyridine, 3,4-dimethyl-	000583-58-4	ug/l											
Pentafluoropropionic acid, hexadec	006222-07-7	ug/l											
Phenanthrene, 1-Methyl-	000832-69-9	ug/l											
Phenanthrene, 2-Methyl- (01)	002531-84-2	ug/l											
p-Hydroxybiphenyl	000092-69-3	ug/l											
Quinoline, 1,2,3,4-tetrahydro-	000635-46-1	ug/l							5.7 JN				
Quinoline, 2-methyl-	000091-63-4	ug/l											
Supraene	007683-64-9	ug/l											
trans-4-Phenyl-3-butenoic acid	001914-58-5	ug/l										5.2 JN	
Trifluoroacetoxy hexadecane	006222-03-3	ug/l											
Unknown-01	UNKNOWN-01	ug/l					7.5 J					2 J	
Unknown-02	UNKNOWN-02	ug/l					5.5 J					2.2 J	
Alkalinity, Total (As Caco3)	ALK	mg/l											
Hardness (As Caco3)	HARD	mg/l											
Nitrogen, Nitrate (As N)	14797-55-8	mg/l											
Sulfate (As So4)	14808-79-8	mg/l											

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

SYS_LOC_CODE			MW-01D Intermediate	MW-02I Intermediate	MW-03I Intermediate	MW-07I Intermediate	MW-07I Intermediate	MW-08DI Intermediate	MW-10I Intermediate	MW-11I Intermediate	MW-12I Intermediate	MW-13I Intermediate
SYS_SAMPLE_CODE			MW-01D-20221114	MW-02I-20221117	MW-3I-20221118	MW-07I-20221121	MW-07I-20221121-DUP	MW-08DI-20221116	MW-10I-20221115	MW-11I-20221115	MW-12I-20221117	MW-13I-20221115
Analyte	**CAS**	**Units**										
Aluminum	7429-90-5	ug/l										
Arsenic	7440-38-2	ug/l									140	
Barium	7440-39-3	ug/l										
Calcium	7440-70-2	ug/l									56600	
Chromium, Total	7440-47-3	ug/l									7.69	
Iron	7439-89-6	ug/l									22100	
Magnesium	7439-95-4	ug/l									10700	
Manganese	7439-96-5	ug/l									19700	
Potassium	7440-09-7	ug/l									3260	
Sodium	7440-23-5	ug/l									14800	
Zinc	7440-66-6	ug/l									30.4	
Total BTEX			***0.00***	***0.00***	***10.95***	***0.00***	***0.00***	***8.47***	***0.00***	***0.00***	***69.30***	***0.00***
1,1,1-Trichloroethane	71-55-6	ug/l	4.8		1.6			3.7		0.09 J		2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l										
1,1-Dichloroethane	75-34-3	ug/l	16		8.7			14		0.41 J		9.9
1,1-Dichloroethene	75-35-4	ug/l	11		1.1			4				0.83
1,2,4-Trimethylbenzene	95-63-6	ug/l			0.22 J						3.6	
1,2-Dichloroethane	107-06-2	ug/l	1.4		0.4 J			1				0.29 J
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l									0.44 J	
Benzene	71-43-2	ug/l			0.96			5.6			1.5	
Carbon Disulfide	75-15-0	ug/l		0.84							1.2	
Chlorobenzene	108-90-7	ug/l						0.12 J				
Chloroethane	75-00-3	ug/l										4
Chloroform	67-66-3	ug/l										
cis-1,2-Dichloroethene	156-59-2	ug/l	72		20			48				1.8
Dichlorodifluoromethane	75-71-8	ug/l	0.08 J									
Ethylbenzene	100-41-4	ug/l			0.79			0.3 J			20	
Isopropylbenzene	98-82-8	ug/l			1.8			2.3			5.3	
M, P Xylenes	179601-23-1	ug/l			2.6			0.43 J			9.8	
Methyl tert-Butyl Ether	1634-04-4	ug/l	0.11 J					0.13 J				
Methylcyclohexane	108-87-2	ug/l									0.08 J	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l			6.1			1.8			30	
Styrene	100-42-5	ug/l										
Toluene	108-88-3	ug/l			0.5			0.34 J			8	
trans-1,2-Dichloroethene	156-60-5	ug/l	0.16 J		0.09 J			0.11 J		0.09 J-		
Trichloroethene (TCE)	79-01-6	ug/l	13		1.4			10				
Vinyl Chloride	75-01-4	ug/l	0.16 J		15			3.8				
Total SVOCs			**10**	**0**	**79.8**	**0**	**0**	**7.6**	**0**	**0**	**156.2**	**11**
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	10		2.6			7.6				11
1-methylnaphthalene	90-12-0	ug/l			2.8 J						21	
2,4-Dimethylphenol	105-67-9	ug/l										
2-Methylnaphthalene	91-57-6	ug/l										
Acenaphthene	83-32-9	ug/l			34						55	
Acenaphthylene	208-96-8	ug/l										
Anthracene	120-12-7	ug/l										
Biphenyl (Diphenyl)	92-52-4	ug/l			14						21	
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l										
Carbazole	86-74-8	ug/l			15							
Dibenzofuran	132-64-9	ug/l			10						37	
Fluoranthene	206-44-0	ug/l										
Fluorene	86-73-7	ug/l									1.4 J	
Naphthalene	91-20-3	ug/l			1.4 J						17	
Phenanthrene	85-01-8	ug/l									3.8 J	
Pyrene	129-00-0	ug/l										

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE	MW-01D Intermediate	MW-02I Intermediate	MW-03I Intermediate	MW-07I Intermediate	MW-07I Intermediate	MW-08DI Intermediate	MW-10I Intermediate	MW-11I Intermediate	MW-12I Intermediate	MW-13I Intermediate
	SYS_SAMPLE_CODE	MW-01D-20221114	MW-02I-20221117	MW-3I-20221118	MW-07I-20221121	MW-07I-20221121-DUP	MW-08DI-20221116	MW-10I-20221115	MW-11I-20221115	MW-12I-20221117	MW-13I-20221115
Analyte	**CAS**	**Units**									
	Total VOC TICs	***4.10***	***60.60***	***237.27***	***0.00***	***0.00***	***224.98***	***0.00***	***0.78***	***1005.90***	***0.00***
1,4-Dihydronaphthalene	000612-17-9	ug/l										
1H-Indazole, 3,6-dimethyl-	007746-28-3	ug/l										
1H-Indazole, 5,7-dimethyl-	043067-41-0	ug/l										
1H-Indene, 1-methylene-	002471-84-3	ug/l										
1H-Indene, 2,3-Dihydro-1,1-Dimethyl-	017059-48-2	ug/l										
1H-Indene, 2,3-Dihydro-2-Me...	006682-71-9	ug/l										
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6	ug/l			3.7 JN						32 JN	
1H-Indene, 2,3-dihydro-5-methyl-	000874-35-1	ug/l			3.7 JN			0.78 JN				
1H-Indene, 2,3-dihydro-4,6-dimethy	001685-82-1	ug/l										
1H-Pyrrolo[2,3-b]pyridine, 2-methy	023612-48-8	ug/l						7.3 JN			7.8 JN	
2-(2-Hydroxyphenyl)buta-1,3-diene	038865-47-3	ug/l										
2H-Cyclopenta[d]pyridazine	000270-64-4	ug/l										
2-Methylindene	002177-47-1	ug/l										
2-Propenal, 3-phenyl-	000104-55-2	ug/l									6.2 JN	
3-Buten-2-one, 4-phenyl-	000122-57-6	ug/l						3 JN				
3-Fluoro-para-anisaldehyde	000351-54-2	ug/l										
3-Methylphenylacetylene	000766-82-5	ug/l										
4-Aminobenzyl cyanide	003544-25-0	ug/l										
4-Methyl-1H-benzimidazole	1000486-24-5	ug/l										
Azulene	000275-51-4	ug/l									30 JN	
Benzene, (1-butylheptyl)-	004537-15-9	ug/l		4.8 JN								
Benzene, (1-butylhexyl)-	004537-11-5	ug/l		0.78 JN								
Benzene, (1-ethylnonyl)-	004536-87-2	ug/l		1.4 JN								
Benzene, (1-ethyloctyl)-	004621-36-7	ug/l		1.8 JN								
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4	ug/l			0.98 JN							
Benzene, (1,2-dimethyl-1-propenyl)	000769-57-3	ug/l										
Benzene, (1-methylnonyl)-	004537-13-7	ug/l		1.2 JN								
Benzene, (1-pentylhexyl)-	004537-14-8	ug/l		1.2 JN								
Benzene, (1-propylheptyl)-	004537-12-6	ug/l		0.82 JN								
Benzene, (1-propylnonyl)-	002719-64-4	ug/l										
Benzene, (1-propyloctyl)-	004536-86-1	ug/l		2 JN								
Benzene, (2-methyl-1-butenyl)-	056253-64-6	ug/l			2 JN							
Benzene, (3-methyl-2-butenyl)-	004489-84-3	ug/l										
Benzene, 1,2,3,5-tetramethyl-	000527-53-7	ug/l			0.84 JN							
Benzene, 1,2,3-trimethyl-	000526-73-8	ug/l						0.59 JN			12 JN	
Benzene, 1,2,4,5-Tetramethyl-	000095-93-2	ug/l										
Benzene, 1-Ethenyl-3-Ethyl-	007525-62-4	ug/l										
Benzene, 1-ethenyl-3-methyl-	000100-80-1	ug/l									460 JN	
Benzene, 1-ethenyl-4-ethyl-	003454-07-7	ug/l										
Benzene, 1-ethyl-2,4-dimethyl-	000874-41-9	ug/l									9.9 JN	
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l			2.3 JN						9.3 JN	
Benzene, 1-ethyl-3-methyl-	000620-14-4	ug/l										
Benzene, 1-ethyl-4-methyl-	000622-96-8	ug/l						0.62 JN				
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4	ug/l			2.5 JN							
Benzene, 1-pentenyl-	000826-18-6	ug/l										
Benzene, 1-propynyl-	000673-32-5	ug/l						0.91 JN				
Benzene, 2-ethenyl-1,3,5-trimethyl	000769-25-5	ug/l						0.58 JN				
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l									43 JN	
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6	ug/l			0.85 JN			1.1 JN				
Benzo[b]thiophene, 2-methyl-	001195-14-8	ug/l										
Benzo[b]thiophene, 5-methyl-	014315-14-1	ug/l										
Benzo[b]thiophene, 6-methyl-	016587-47-6	ug/l						2.4 JN			5.1 JN	
Benzo[c]thiophene	000270-82-6	ug/l		1.3 JN	6 JN			44 JN			44 JN	
Benzofuran	000271-89-6	ug/l										
Benzofuran, 2-methyl-	004265-25-2	ug/l			18 JN			11 JN			69 JN	
Benzofuran, 4,7-dimethyl-	028715-26-6	ug/l										
Benzofuran, 7-methyl-	017059-52-8	ug/l			6.9 JN			41 JN			31 JN	
Benzonitrile, 4-(dimethylamino)-	001197-19-9	ug/l						1.1 JN				
Cinnamaldehyde, (E)-	014371-10-9	ug/l			1.5 JN			5.9 JN				
Cycloprop[a]indene, 1,1a,6,6a-tetr	015677-15-3	ug/l										
Dodecanal	000112-54-9	ug/l										
Dodecane, 1-chloro-	000112-52-7	ug/l		16 JN							8.8 JN	
Ethane, 1-chloro-1,1-difluoro-	000075-68-3	ug/l	4.1 JN									
Indan, 1-methyl-	000767-58-8	ug/l			9.9 JN			4.9 JN			39 JN	
Indane	000496-11-7	ug/l		0.7 JN	26 JN			6.1 JN				
Indene	000095-13-6	ug/l			48 JN			13 JN			160 JN	
Naphthalene, 1,2,3,4-tetrahydro-	000119-64-2	ug/l			4.1 JN						17 JN	
Naphthalene, 2,3-dimethyl-	000581-40-8	ug/l										
Naphthalene, 1,3-dimethyl-	000575-41-7	ug/l										
Naphthalene, 1-ethyl-	001127-76-0	ug/l										
Naphthalene, 2,6-dimethyl-	000581-42-0	ug/l										
Naphthalene, 2,7-dimethyl-	000582-16-1	ug/l										
Naphthalene, 2-ethenyl-	000827-54-3	ug/l									17 JN	
Naphthalene, 2-ethyl-	000939-27-5	ug/l										
Pentadecanal-	002765-11-9	ug/l										
Sulfur dioxide	007446-09-5	ug/l						1.7 JN		0.78 JN		
Tetradecanal	000124-25-4	ug/l										
Tetradecane, 1-chloro-	002425-54-9	ug/l		2.1 JN								
Total Alkane Tics	E966796	ug/l		18	100			79			4.8	

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	MW-01D	MW-02I	MW-03I	MW-07I	MW-07I	MW-08DI	MW-10I	MW-11I	MW-12I	MW-13I
			Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
		SYS_SAMPLE_CODE	MW-01D-20221114	MW-02I-20221117	MW-3I-20221118	MW-07I-20221121	MW-07I-20221121-DUP	MW-08DI-20221116	MW-10I-20221115	MW-11I-20221115	MW-12I-20221117	MW-13I-20221115
Analyte	**CAS**	**Units**										
Tridecanal	010486-19-8	ug/l		8.5 JN								
Unknown-01	UNKNOWN-01	ug/l										
	Total SVOC TICs		**0**	**0**	**148.4**	**0**	**0**	**282**	**0**	**0**	**713.1**	**0**
1(2H)-Acenaphthylenone	002235-15-6	ug/l			4 JN						12 JN	
1(2H)-Quinolinecarboxaldehyde, 3,4	002739-16-4	ug/l										
1-Acenaphthenol	006306-07-6	ug/l										
1-Hexanol, 2-ethyl-	000104-76-7	ug/l										
1H-Inden-1-ol, 2,3-dihydro-	006351-10-6	ug/l									5.8 JN	
1H-Inden-1-one, 2,3-dihydro-	000083-33-0	ug/l									5.3 JN	
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6	ug/l									12 JN	
1H-Indene-2-carboxylic acid	041712-14-5	ug/l									2.2 JN	
1H-Indenol	056631-57-3	ug/l									3 JN	
1H-Isoindole, 3-methoxy-4,7-dimeth	100813-60-3	ug/l										
1-Isopropenylnaphthalene	001855-47-6	ug/l										
1-Naphthalenamine, 5,6,7,8-tetrahy	013541-35-0	ug/l						2.5 JN				
1-Naphthalenemethanol	004780-79-4	ug/l										
1-Naphthalenol, 2-amino-	000606-41-7	ug/l										
2(1H)-Quinolinone, 3-methyl-	002721-59-7	ug/l						27 JN				
2(1H)-Quinolinone, 4,6-dimethyl-	023947-37-7	ug/l										
2(1H)-Quinolinone, 4,8-dimethyl-	005349-78-0	ug/l						2.3 JN				
2(1H)-Quinolinone, 4-methyl-	000607-66-9	ug/l						9.6 JN				
2,3-Dimethylquinolin-4(1H)-one	058596-45-5	ug/l						2.4 JN				
2,4,7,9-Tetramethyl-5-decyn-4,7-di	000126-86-3	ug/l										
2,6-Lutidine	000108-48-5	ug/l			32 JN						23 JN	
2-Indolinone, ethyl ether	1000453-17-4	ug/l						2.9 JN				
2-Methylindene	002177-47-1	ug/l									4.1 JN	
2-Naphthalenecarbonitrile	000613-46-7	ug/l										
2-Naphthalenol, 5-amino-	000086-97-5	ug/l						2.6 JN				
2-Propenal, 3-phenyl-	000104-55-2	ug/l			10 JN			7.8 JN			43 JN	
3-(Carboxymethyl)benzoic acid	1000481-02-3	ug/l										
3,4-Dihydrocyclopenta[b]indol-1(2H	1000305-37-5	ug/l						4.6 JN				
3,4-Methylenedioxyphenylacetic aci	002861-28-1	ug/l									12 JN	
3-Methylbenzothiophene	001455-18-1	ug/l										
3-Methylphenylacetylene	000766-82-5	ug/l						12 JN				
3-Phenyl-2-propyn-1-ol	001504-58-1	ug/l						9.1 JN				
4H-Benzo[def]carbazole	000203-65-6	ug/l										
4H-Cyclopenta[Def]Phenanthrene	000203-64-5	ug/l										
4-Methyl-1H-benzimidazole	1000486-24-5	ug/l			2.5 JN							
4-Methylcarbazole	003770-48-7	ug/l										
4-Quinolinol, 2-methyl-	000607-67-0	ug/l						2.1 JN				
5-Amino-1-naphthol	000083-55-6	ug/l										
5-Aminoindan	024425-40-9	ug/l						40 JN				
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	ug/l										
7-Methyl-1(2H)-isoquinolinone	026829-47-0	ug/l										
8-Methylquinolin-2(1H)-one	1000502-93-2	ug/l										
9H-Fluoren-3-ol	006344-67-8	ug/l										
9H-Fluorene, 2-methyl-	001430-97-3	ug/l										
9-Octadecenamide, (Z)-	000301-02-0	ug/l										
1-Isobutoxy-2-ethylhexane	1000139-90-3	ug/l										
2,4,6-Cycloheptatrien-1-one, 2-phe	014562-09-5	ug/l										
2-Dibenzofuranol	000086-77-1	ug/l										
3-Hydroxybiphenyl	000580-51-8	ug/l										
3-Phenylbut-1-ene	000934-10-1	ug/l										
9,12-Octadecadienoic acid (Z,Z)-	000060-33-3	ug/l										
9,17-Octadecadienal, (Z)-	056554-35-9	ug/l										
Adamantane-1-carboxylic acid	000828-51-3	ug/l										
Anthracene, 1-methyl-	000610-48-0	ug/l										
Anthracene, 9,10-dihydro-	000613-31-0	ug/l										
Benzene, (1-ethylpropyl)-	001196-58-3	ug/l										
Benzene, 1,1-(bromomethylene)bis-	000776-74-9	ug/l										
Benzene, 1,2,3,4-tetramethyl-	000488-23-3	ug/l										
Benzene, 1,2,3-trimethyl-	000526-73-8	ug/l										
Benzene, 1,3-Dimethyl-	000108-38-3	ug/l									14 JN	
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l										
Benzene, 1-ethyl-3-methyl-	000620-14-4	ug/l									4.4 JN	
Benzene, 1-ethyl-4-methyl-	000622-96-8	ug/l										
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4	ug/l									7.9 JN	
Benzene, 1-propynyl-	000673-32-5	ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l									20 JN	
Benzene, 4-ethyl-1,2-dimethyl-	000934-80-5	ug/l										
Benzene, cyclopropyl-	000873-49-4	ug/l										
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6	ug/l			5.1 JN			10 JN			11 JN	
Benzo[b]thiophene, 2-methyl-	001195-14-8	ug/l						4.5 JN			8.7 JN	
Benzo[b]thiophene, 4-methyl-	014315-11-8	ug/l			2.5 JN							
benzo[b]thiophene-5-carboxylic aci	1000404-77-7	ug/l						4.7 JN				
Benzo[c]thiophene	000270-82-6	ug/l									4.8 JN	
Benzo[c]thiophene, 1,3-dihydro-	002471-92-3	ug/l										
Benzofuran, 2-methyl-	004265-25-2	ug/l			5.6 JN			36 JN			13 JN	
Benzophenone	000119-61-9	ug/l									2.3 JN	
Butanoic acid	000107-92-6	ug/l										
Butoxyacetic acid	002516-93-0	ug/l										

J The associated value is an estimated quantity.
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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			SYS_LOC_CODE	MW-01D Intermediate	MW-02I Intermediate	MW-03I Intermediate	MW-07I Intermediate	MW-07I Intermediate	MW-08DI Intermediate	MW-10I Intermediate	MW-11I Intermediate	MW-12I Intermediate	MW-13I Intermediate
			SYS_SAMPLE_CODE	MW-01D-20221114	MW-02I-20221117	MW-3I-20221118	MW-07I-20221121	MW-07I-20221121-DUP	MW-08DI-20221116	MW-10I-20221115	MW-11I-20221115	MW-12I-20221117	MW-13I-20221115
Analyte	**CAS**	**Units**											
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4	ug/l											
Benzene, 1-ethenyl-4-ethyl-	003454-07-7	ug/l											
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l											
Benzenesulfonamide, N,4-dimethyl-	000640-61-9	ug/l											
Benzofuran	000271-89-6	ug/l											
Benzofuran, 2-methyl-	004265-25-2	ug/l											
Benzofuran, 7-methyl-	017059-52-8	ug/l											
Benzonitrile, 3-methyl-	000620-22-4	ug/l											
Benzonitrile, 4-methyl-	000104-85-8	ug/l											
Cinnamaldehyde, (E)-	014371-10-9	ug/l										33 JN	
Dibenzofuran, 4-methyl-	007320-53-8	ug/l											
Dibenzothiophene	000132-65-0	ug/l											
Dichloroacetic acid, heptadecyl es	1000282-98-2	ug/l											
Dibenzofuran, 4-methyl-	007320-53-8	ug/l											
Diphenylmethane	000101-81-5	ug/l											
Ethanone, 1-(2,3,4-trihydroxypheny	000528-21-2	ug/l											
Fluorene-4-carboxylic acid	006954-55-8	ug/l										3.2 JN	
Indane	000496-11-7	ug/l				11 JN			3.1 JN			260 JN	
Indane-5-carboxylic acid	065898-38-6	ug/l				6.9 JN			2.6 JN			23 JN	
Indene	000095-13-6	ug/l				35 JN						160 JN	
Isoquinoline	000119-65-3	ug/l										4.1 JN	
Isoquinoline, 5,6,7,8-tetrahydro-	036556-06-6	ug/l							21 JN				
Methylchromone	000085-90-5	ug/l							2.1 JN				
Naphthalene, 1,3-dimethyl-	000575-41-7	ug/l										2.4 JN	
Naphthalene, 1,7-dimethyl-	000575-37-1	ug/l											
Naphthalene, 2,3-dimethyl-	000581-40-8	ug/l											
Naphthalene, 2,6-dimethyl-	000581-42-0	ug/l											
n-Hexadecanoic acid	000057-10-3	ug/l							3.9 JN				
Naphthalene, 1,6-dimethyl-	000575-43-9	ug/l											
Naphthalene, 1-ethyl-	001127-76-0	ug/l											
Octadecanoic acid	000057-11-4	ug/l											
o-Hydroxybiphenyl	000090-43-7	ug/l											
Pyridine, 2,3-dimethyl-	000583-61-9	ug/l				2.1 JN						7 JN	
Pyridine, 2-ethyl-6-methyl-	001122-69-6	ug/l				2.9 JN						2.5 JN	
Pyridine, 2-methyl-	000109-06-8	ug/l				15 JN						4.5 JN	
Pyridine, 3,4-dimethyl-	000583-58-4	ug/l										4.9 JN	
Pentafluoropropionic acid, hexadec	006222-07-7	ug/l											
Phenanthrene, 1-Methyl-	000832-69-9	ug/l											
Phenanthrene, 2-Methyl- (01)	002531-84-2	ug/l											
p-Hydroxybiphenyl	000092-69-3	ug/l											
Quinoline, 1,2,3,4-tetrahydro-	000635-46-1	ug/l											
Quinoline, 2-methyl-	000091-63-4	ug/l				7.6 JN							
Supraene	007683-64-9	ug/l							3.2 JN				
trans-4-Phenyl-3-butenoic acid	001914-58-5	ug/l											
Trifluoroacetoxy hexadecane	006222-03-3	ug/l											
Unknown-01	UNKNOWN-01	ug/l				6.2 J			66 J				
Unknown-02	UNKNOWN-02	ug/l											
Alkalinity, Total (As Caco3)	ALK	mg/l										289 J	
Hardness (As Caco3)	HARD	mg/l										185	
Nitrogen, Nitrate (As N)	14797-55-8	mg/l											
Sulfate (As So4)	14808-79-8	mg/l											

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	MW-21I Intermediate	MW-22I Intermediate	MW-08B Bedrock	MW-10B Bedrock	MW-11B Bedrock	MW-12B Bedrock	MW-13B Bedrock	MW-17B Bedrock	MW-17B Bedrock	MW-19B Bedrock
		SYS_SAMPLE_CODE	MW-21I-20221116	MW-22I-3-20230117	MW-08B-20221116	MW-10B-20221115	MW-11B-20221115	MW-12B-20221117	MW-13B-20221115	MW-17B-20221117-DUP	MW-17B-20221117	MW-19B-20221116
Analyte	**CAS**	**Units**										
Aluminum	7429-90-5	ug/l						204		427	727	
Arsenic	7440-38-2	ug/l										
Barium	7440-39-3	ug/l						565		289	330	
Calcium	7440-70-2	ug/l						54500		68800	77800	
Chromium, Total	7440-47-3	ug/l										
Iron	7439-89-6	ug/l						363		1570	2380	
Magnesium	7439-95-4	ug/l						10500		13400	15400	
Manganese	7439-96-5	ug/l						637		197	250	
Potassium	7440-09-7	ug/l						1410		4300	3270	
Sodium	7440-23-5	ug/l						86300		64900	69800	
Zinc	7440-66-6	ug/l										
Total BTEX			***3.79***	***0.62***	***0.40***	***0.00***	***10.26***	***33.60***	***0.34***	***0.00***	***0.00***	***0.00***
1,1,1-Trichloroethane	71-55-6	ug/l	6.9	0.08 J	25		0.42 J	4.6	6.6	34	31	4.9
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l										
1,1-Dichloroethane	75-34-3	ug/l	13	15	23		4.1	16	13	28	25	4.4
1,1-Dichloroethene	75-35-4	ug/l	1.5	3.8	7.2		0.32 J-	0.99	3.1	14 J+	13	1.3
1,2,4-Trimethylbenzene	95-63-6	ug/l	0.1 J				0.1 J	7				
1,2-Dichloroethane	107-06-2	ug/l	0.66	0.74	1.3			0.84	0.78	1.8	1.6	0.24 J
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	0.08 J					5.3				
Benzene	71-43-2	ug/l	1.2	0.62	0.4 J		7.9	1.5	0.34 J			
Carbon Disulfide	75-15-0	ug/l	0.24 J					1.8		0.51	0.67	
Chlorobenzene	108-90-7	ug/l										
Chloroethane	75-00-3	ug/l					1.3					
Chloroform	67-66-3	ug/l			0.37 J							
cis-1,2-Dichloroethene	156-59-2	ug/l	19	43	94		2.9 J-	37	27	160	150	18
Dichlorodifluoromethane	75-71-8	ug/l								0.12 J	0.11 J	
Ethylbenzene	100-41-4	ug/l	0.38 J				0.78	4.3				
Isopropylbenzene	98-82-8	ug/l	0.18 J				0.09 J	1.4				
M, P Xylenes	179601-23-1	ug/l	0.67				0.5	15				
Methyl tert-Butyl Ether	1634-04-4	ug/l	0.32 J		0.28 J		0.14 J	1.4	0.2 J			
Methylcyclohexane	108-87-2	ug/l										
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	0.97				0.84	10				
Styrene	100-42-5	ug/l										
Toluene	108-88-3	ug/l	0.57				0.24 J	2.8				
trans-1,2-Dichloroethene	156-60-5	ug/l	0.13 J	0.1 J	0.16 J		0.07 J-		0.09 J			
Trichloroethene (TCE)	79-01-6	ug/l	4.9	6.3	40		0.8	1.3	12	33	30	5.3
Vinyl Chloride	75-01-4	ug/l	9.8	1.7			1.2	32	1.7			
Total SVOCs			**5.4**	**5747.7**	**12**	**0**	**0**	**434**	**6.6**	**9.8**	**9.6**	**1.9**
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	5.4		12			6.4	6.6	9.8	9.6	1.9 J
1-methylnaphthalene	90-12-0	ug/l		140				57				
2,4-Dimethylphenol	105-67-9	ug/l		1.2 J								
2-Methylnaphthalene	91-57-6	ug/l		200								
Acenaphthene	83-32-9	ug/l		23				93				
Acenaphthylene	208-96-8	ug/l		3.5 J				3.9 J				
Anthracene	120-12-7	ug/l						4 J				
Biphenyl (Diphenyl)	92-52-4	ug/l		12				31				
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l		2.6 J								
Carbazole	86-74-8	ug/l		52				25				
Dibenzofuran	132-64-9	ug/l		12				60				
Fluoranthene	206-44-0	ug/l						10				
Fluorene	86-73-7	ug/l		1.4 J				61				
Naphthalene	91-20-3	ug/l		5300								
Phenanthrene	85-01-8	ug/l						77				
Pyrene	129-00-0	ug/l						5.7				

J The associated value is an estimated quantity.
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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	MW-21I Intermediate	MW-22I Intermediate	MW-08B Bedrock	MW-10B Bedrock	MW-11B Bedrock	MW-12B Bedrock	MW-13B Bedrock	MW-17B Bedrock	MW-17B Bedrock	MW-19B Bedrock
		SYS_SAMPLE_CODE	MW-21I-20221116	MW-22I-3-20230117	MW-08B-20221116	MW-10B-20221115	MW-11B-20221115	MW-12B-20221117	MW-13B-20221115	MW-17B-20221117-DUP	MW-17B-20221117	MW-19B-20221116
Analyte	**CAS**	**Units**										
		Total VOC TICs	***45.10***	***672.70***	***5.55***	***0.00***	***30.45***	***614.10***	***24.70***	***37.70***	***65.40***	***1.40***
1,4-Dihydronaphthalene	000612-17-9	ug/l										
1H-Indazole, 3,6-dimethyl-	007746-28-3	ug/l										
1H-Indazole, 5,7-dimethyl-	043067-41-0	ug/l										
1H-Indene, 1-methylene-	002471-84-3	ug/l										
1H-Indene, 2,3-Dihydro-1,1-Dimethyl-	017059-48-2	ug/l										
1H-Indene, 2,3-Dihydro-2-Me...	006682-71-9	ug/l										
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6	ug/l						9.5 JN				
1H-Indene, 2,3-dihydro-5-methyl-	000874-35-1	ug/l										
1H-Indene, 2,3-dihydro-4,6-dimethy	001685-82-1	ug/l										
1H-Pyrrolo[2,3-b]pyridine, 2-methy	023612-48-8	ug/l										
2-(2-Hydroxyphenyl)buta-1,3-diene	038865-47-3	ug/l										
2H-Cyclopenta[d]pyridazine	000270-64-4	ug/l						7.3 JN				
2-Methylindene	002177-47-1	ug/l		7.2 JN				5.2 JN				
2-Propenal, 3-phenyl-	000104-55-2	ug/l										
3-Buten-2-one, 4-phenyl-	000122-57-6	ug/l										
3-Fluoro-para-anisaldehyde	000351-54-2	ug/l									5.2 JN	
3-Methylphenylacetylene	000766-82-5	ug/l										
4-Aminobenzyl cyanide	003544-25-0	ug/l										
4-Methyl-1H-benzimidazole	1000486-24-5	ug/l										
Azulene	000275-51-4	ug/l		350 JN			1.7 JN	290 JN		4.5 JN	18 JN	
Benzene, (1-butylheptyl)-	004537-15-9	ug/l										
Benzene, (1-butylhexyl)-	004537-11-5	ug/l										
Benzene, (1-ethylnonyl)-	004536-87-2	ug/l										
Benzene, (1-ethyloctyl)-	004621-36-7	ug/l										
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4	ug/l										
Benzene, (1,2-dimethyl-1-propenyl)	000769-57-3	ug/l										
Benzene, (1-methylnonyl)-	004537-13-7	ug/l										
Benzene, (1-pentylhexyl)-	004537-14-8	ug/l										
Benzene, (1-propylheptyl)-	004537-12-6	ug/l										
Benzene, (1-propylnonyl)-	002719-64-4	ug/l										
Benzene, (1-propyloctyl)-	004536-86-1	ug/l										
Benzene, (2-methyl-1-butenyl)-	056253-64-6	ug/l										
Benzene, (3-methyl-2-butenyl)-	004489-84-3	ug/l										
Benzene, 1,2,3,5-tetramethyl-	000527-53-7	ug/l						3.1 JN				
Benzene, 1,2,3-trimethyl-	000526-73-8	ug/l		5 JN				7.7 JN				
Benzene, 1,2,4,5-Tetramethyl-	000095-93-2	ug/l										
Benzene, 1-Ethenyl-3-Ethyl-	007525-62-4	ug/l										
Benzene, 1-ethenyl-3-methyl-	000100-80-1	ug/l										
Benzene, 1-ethenyl-4-ethyl-	003454-07-7	ug/l		6 JN			0.56 JN					
Benzene, 1-ethyl-2,4-dimethyl-	000874-41-9	ug/l						4.7 JN				
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l						5.8 JN				
Benzene, 1-ethyl-3-methyl-	000620-14-4	ug/l		5 JN								
Benzene, 1-ethyl-4-methyl-	000622-96-8	ug/l						3.1 JN				
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4	ug/l										
Benzene, 1-pentenyl-	000826-18-6	ug/l										
Benzene, 1-propynyl-	000673-32-5	ug/l										
Benzene, 2-ethenyl-1,3,5-trimethyl	000769-25-5	ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l					0.73 JN	16 JN				
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6	ug/l										
Benzo[b]thiophene, 2-methyl-	001195-14-8	ug/l						3.1 JN				
Benzo[b]thiophene, 5-methyl-	014315-14-1	ug/l										
Benzo[b]thiophene, 6-methyl-	016587-47-6	ug/l										
Benzo[c]thiophene	000270-82-6	ug/l		30 JN	3 JN		1.4 JN	19 JN			1.3 JN	
Benzofuran	000271-89-6	ug/l		32 JN								
Benzofuran, 2-methyl-	004265-25-2	ug/l		9.5 JN			0.84 JN	10 JN				
Benzofuran, 4,7-dimethyl-	028715-26-6	ug/l										
Benzofuran, 7-methyl-	017059-52-8	ug/l		24 JN			1.1 JN	18 JN				
Benzonitrile, 4-(dimethylamino)-	001197-19-9	ug/l										
Cinnamaldehyde, (E)-	014371-10-9	ug/l										
Cycloprop[a]indene, 1,1a,6,6a-tetr	015677-15-3	ug/l										
Dodecanal	000112-54-9	ug/l								7.7 JN		
Dodecane, 1-chloro-	000112-52-7	ug/l						7.2 JN		7.8 JN	8.2 JN	
Ethane, 1-chloro-1,1-difluoro-	000075-68-3	ug/l	2 JN				0.92 JN		2.7 JN			
Indan, 1-methyl-	000767-58-8	ug/l						9.7 JN				
Indane	000496-11-7	ug/l		54 JN			11 JN	73 JN			1.3 JN	
Indene	000095-13-6	ug/l		150 JN			5.6 JN	73 JN				
Naphthalene, 1,2,3,4-tetrahydro-	000119-64-2	ug/l						11 JN				
Naphthalene, 2,3-dimethyl-	000581-40-8	ug/l									3.3 JN	
Naphthalene, 1,3-dimethyl-	000575-41-7	ug/l										
Naphthalene, 1-ethyl-	001127-76-0	ug/l										
Naphthalene, 2,6-dimethyl-	000581-42-0	ug/l								2 JN	5.4 JN	
Naphthalene, 2,7-dimethyl-	000582-16-1	ug/l						4.7 JN				
Naphthalene, 2-ethenyl-	000827-54-3	ug/l						13 JN		4.2 JN	11 JN	
Naphthalene, 2-ethyl-	000939-27-5	ug/l									2.1 JN	
Pentadecanal-	002765-11-9	ug/l								2.4 JN		
Sulfur dioxide	007446-09-5	ug/l	1.1 JN		0.95 JN		1 JN					1.4 JN
Tetradecanal	000124-25-4	ug/l									2 JN	
Tetradecane, 1-chloro-	002425-54-9	ug/l								1.1 JN	1 JN	
Total Alkane Tics	E966796	ug/l	42				5.6	20	22	8	6.6	0

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE	MW-21I Intermediate	MW-22I Intermediate	MW-08B Bedrock	MW-10B Bedrock	MW-11B Bedrock	MW-12B Bedrock	MW-13B Bedrock	MW-17B Bedrock	MW-17B Bedrock	MW-19B Bedrock
	SYS_SAMPLE_CODE	MW-21I-20221116	MW-22I-3-20230117	MW-08B-20221116	MW-10B-20221115	MW-11B-20221115	MW-12B-20221117	MW-13B-20221115	MW-17B-20221117-DUP	MW-17B-20221117	MW-19B-20221116
Analyte	**CAS**	**Units**									
Tridecanal	010486-19-8	ug/l									
Unknown-01	UNKNOWN-01	ug/l			1.6 J						
	Total SVOC TICs	**28.5**	**2851**	**12.3**	**0**	**3.7**	**199.8**	**0**	**0**	**0**	**0**
1(2H)-Acenaphthylenone	002235-15-6	ug/l									
1(2H)-Quinolinecarboxaldehyde, 3,4	002739-16-4	ug/l									
1-Acenaphthenol	006306-07-6	ug/l					8.5 JN				
1-Hexanol, 2-ethyl-	000104-76-7	ug/l									
1H-Inden-1-ol, 2,3-dihydro-	006351-10-6	ug/l					6.7 JN				
1H-Inden-1-one, 2,3-dihydro-	000083-33-0	ug/l									
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6	ug/l									
1H-Indene-2-carboxylic acid	041712-14-5	ug/l									
1H-Indenol	056631-57-3	ug/l					23 JN				
1H-Isoindole, 3-methoxy-4,7-dimeth	100813-60-3	ug/l									
1-Isopropenylnaphthalene	001855-47-6	ug/l					2.4 JN				
1-Naphthalenamine, 5,6,7,8-tetrahy	013541-35-0	ug/l									
1-Naphthalenemethanol	004780-79-4	ug/l					21 JN				
1-Naphthalenol, 2-amino-	000606-41-7	ug/l		21 JN							
2(1H)-Quinolinone, 3-methyl-	002721-59-7	ug/l	11 JN								
2(1H)-Quinolinone, 4,6-dimethyl-	023947-37-7	ug/l									
2(1H)-Quinolinone, 4,8-dimethyl-	005349-78-0	ug/l									
2(1H)-Quinolinone, 4-methyl-	000607-66-9	ug/l									
2,3-Dimethylquinolin-4(1H)-one	058596-45-5	ug/l									
2,4,7,9-Tetramethyl-5-decyn-4,7-di	000126-86-3	ug/l									
2,6-Lutidine	000108-48-5	ug/l									
2-Indolinone, ethyl ether	1000453-17-4	ug/l									
2-Methylindene	002177-47-1	ug/l		48 JN							
2-Naphthalenecarbonitrile	000613-46-7	ug/l		27 JN							
2-Naphthalenol, 5-amino-	000086-97-5	ug/l									
2-Propenal, 3-phenyl-	000104-55-2	ug/l									
3-(Carboxymethyl)benzoic acid	1000481-02-3	ug/l									
3,4-Dihydrocyclopenta[b]indol-1(2H	1000305-37-5	ug/l									
3,4-Methylenedioxyphenylacetic aci	002861-28-1	ug/l									
3-Methylbenzothiophene	001455-18-1	ug/l		21 JN							
3-Methylphenylacetylene	000766-82-5	ug/l									
3-Phenyl-2-propyn-1-ol	001504-58-1	ug/l		49 JN							
4H-Benzo[def]carbazole	000203-65-6	ug/l					3.2 JN				
4H-Cyclopenta[Def]Phenanthrene	000203-64-5	ug/l					5.9 JN				
4-Methyl-1H-benzimidazole	1000486-24-5	ug/l									
4-Methylcarbazole	003770-48-7	ug/l					4.3 JN				
4-Quinolinol, 2-methyl-	000607-67-0	ug/l									
5-Amino-1-naphthol	000083-55-6	ug/l									
5-Aminoindan	024425-40-9	ug/l									
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	ug/l				3.7 JN					
7-Methyl-1(2H)-isoquinolinone	026829-47-0	ug/l									
8-Methylquinolin-2(1H)-one	1000502-93-2	ug/l		20 JN							
9H-Fluoren-3-ol	006344-67-8	ug/l					5.5 JN				
9H-Fluorene, 2-methyl-	001430-97-3	ug/l					2.2 JN				
9-Octadecenamide, (Z)-	000301-02-0	ug/l									
1-Isobutoxy-2-ethylhexane	1000139-90-3	ug/l									
2,4,6-Cycloheptatrien-1-one, 2-phe	014562-09-5	ug/l									
2-Dibenzofuranol	000086-77-1	ug/l		14 JN							
3-Hydroxybiphenyl	000580-51-8	ug/l		28 JN							
3-Phenylbut-1-ene	000934-10-1	ug/l		64 JN							
9,12-Octadecadienoic acid (Z,Z)-	000060-33-3	ug/l		450 JN							
9,17-Octadecadienal, (Z)-	056554-35-9	ug/l		16 JN							
Adamantane-1-carboxylic acid	000828-51-3	ug/l					5 JN				
Anthracene, 1-methyl-	000610-48-0	ug/l					3 JN				
Anthracene, 9,10-dihydro-	000613-31-0	ug/l					2.4 JN				
Benzene, (1-ethylpropyl)-	001196-58-3	ug/l					2.5 JN				
Benzene, 1,1-(bromomethylene)bis-	000776-74-9	ug/l					4.5 JN				
Benzene, 1,2,3,4-tetramethyl-	000488-23-3	ug/l					2.6 JN				
Benzene, 1,2,3-trimethyl-	000526-73-8	ug/l		16 JN			3.5 JN				
Benzene, 1,3-Dimethyl-	000108-38-3	ug/l					3.3 JN				
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l					2.2 JN				
Benzene, 1-ethyl-3-methyl-	000620-14-4	ug/l									
Benzene, 1-ethyl-4-methyl-	000622-96-8	ug/l									
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4	ug/l									
Benzene, 1-propynyl-	000673-32-5	ug/l									
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l					6.9 JN				
Benzene, 4-ethyl-1,2-dimethyl-	000934-80-5	ug/l									
Benzene, cyclopropyl-	000873-49-4	ug/l									
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6	ug/l		10 JN							
Benzo[b]thiophene, 2-methyl-	001195-14-8	ug/l		28 JN			4.9 JN				
Benzo[b]thiophene, 4-methyl-	014315-11-8	ug/l									
benzo[b]thiophene-5-carboxylic aci	1000404-77-7	ug/l									
Benzo[c]thiophene	000270-82-6	ug/l		530 JN							
Benzo[c]thiophene, 1,3-dihydro-	002471-92-3	ug/l									
Benzofuran, 2-methyl-	004265-25-2	ug/l					4.3 JN				
Benzophenone	000119-61-9	ug/l									
Butanoic acid	000107-92-6	ug/l									
Butoxyacetic acid	002516-93-0	ug/l									

J The associated value is an estimated quantity.
N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			SYS_LOC_CODE	MW-21I Intermediate	MW-22I Intermediate	MW-08B Bedrock	MW-10B Bedrock	MW-11B Bedrock	MW-12B Bedrock	MW-13B Bedrock	MW-17B Bedrock	MW-17B Bedrock	MW-19B Bedrock
			SYS_SAMPLE_CODE	MW-21I-20221116	MW-22I-3-20230117	MW-08B-20221116	MW-10B-20221115	MW-11B-20221115	MW-12B-20221117	MW-13B-20221115	MW-17B-20221117-DUP	MW-17B-20221117	MW-19B-20221116
Analyte	**CAS**	**Units**											
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4	ug/l		31 JN									
Benzene, 1-ethenyl-4-ethyl-	003454-07-7	ug/l		21 JN									
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l		13 JN									
Benzenesulfonamide, N,4-dimethyl-	000640-61-9	ug/l											
Benzofuran	000271-89-6	ug/l		160 JN									
Benzofuran, 2-methyl-	004265-25-2	ug/l		37 JN									
Benzofuran, 7-methyl-	017059-52-8	ug/l		220 JN									
Benzonitrile, 3-methyl-	000620-22-4	ug/l		70 JN									
Benzonitrile, 4-methyl-	000104-85-8	ug/l		19 JN									
Cinnamaldehyde, (E)-	014371-10-9	ug/l											
Dibenzofuran, 4-methyl-	007320-53-8	ug/l							7.6 JN				
Dibenzothiophene	000132-65-0	ug/l							6.8 JN				
Dichloroacetic acid, heptadecyl es	1000282-98-2	ug/l											
Dibenzofuran, 4-methyl-	007320-53-8	ug/l											
Diphenylmethane	000101-81-5	ug/l											
Ethanone, 1-(2,3,4-trihydroxypheny	000528-21-2	ug/l							2.5 JN				
Fluorene-4-carboxylic acid	006954-55-8	ug/l											
Indane	000496-11-7	ug/l		170 JN					19 JN				
Indane-5-carboxylic acid	065898-38-6	ug/l											
Indene	000095-13-6	ug/l		490 JN					5.3 JN				
Isoquinoline	000119-65-3	ug/l											
Isoquinoline, 5,6,7,8-tetrahydro-	036556-06-6	ug/l											
Methylchromone	000085-90-5	ug/l											
Naphthalene, 1,3-dimethyl-	000575-41-7	ug/l											
Naphthalene, 1,7-dimethyl-	000575-37-1	ug/l							3.8 JN				
Naphthalene, 2,3-dimethyl-	000581-40-8	ug/l							14 JN				
Naphthalene, 2,6-dimethyl-	000581-42-0	ug/l							13 JN				
n-Hexadecanoic acid	000057-10-3	ug/l	2.6 JN	130 JN	2.3 JN								
Naphthalene, 1,6-dimethyl-	000575-43-9	ug/l											
Naphthalene, 1-ethyl-	001127-76-0	ug/l											
Octadecanoic acid	000057-11-4	ug/l		64 JN									
o-Hydroxybiphenyl	000090-43-7	ug/l		23 JN									
Pyridine, 2,3-dimethyl-	000583-61-9	ug/l											
Pyridine, 2-ethyl-6-methyl-	001122-69-6	ug/l											
Pyridine, 2-methyl-	000109-06-8	ug/l											
Pyridine, 3,4-dimethyl-	000583-58-4	ug/l											
Pentafluoropropionic acid, hexadec	006222-07-7	ug/l											
Phenanthrene, 1-Methyl-	000832-69-9	ug/l											
Phenanthrene, 2-Methyl- (01)	002531-84-2	ug/l											
p-Hydroxybiphenyl	000092-69-3	ug/l		26 JN									
Quinoline, 1,2,3,4-tetrahydro-	000635-46-1	ug/l	12 JN										
Quinoline, 2-methyl-	000091-63-4	ug/l											
Supraene	007683-64-9	ug/l				10 JN							
trans-4-Phenyl-3-butenoic acid	001914-58-5	ug/l											
Trifluoroacetoxy hexadecane	006222-03-3	ug/l	2.9 JN										
Unknown-01	UNKNOWN-01	ug/l		35 J									
Unknown-02	UNKNOWN-02	ug/l											
Alkalinity, Total (As Caco3)	ALK	mg/l							171 J		115 J	126 J	
Hardness (As Caco3)	HARD	mg/l							179		227	258	
Nitrogen, Nitrate (As N)	14797-55-8	mg/l									0.614	0.613	
Sulfate (As So4)	14808-79-8	mg/l							7.66		13.2	13.2	

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

	SYS_LOC_CODE	MW-20B Bedrock	MW-21B Bedrock	MW-22B Bedrock
	SYS_SAMPLE_CODE	MW-20B-20221116	MW-21B-20221116	MW-22B-20230112
Analyte	**CAS**	**Units**			
Aluminum	7429-90-5	ug/l			
Arsenic	7440-38-2	ug/l			
Barium	7440-39-3	ug/l			
Calcium	7440-70-2	ug/l			
Chromium, Total	7440-47-3	ug/l			
Iron	7439-89-6	ug/l			
Magnesium	7439-95-4	ug/l			
Manganese	7439-96-5	ug/l			
Potassium	7440-09-7	ug/l			
Sodium	7440-23-5	ug/l			
Zinc	7440-66-6	ug/l			
Total BTEX			***1.37***	***3.79***	***13.20***
1,1,1-Trichloroethane	71-55-6	ug/l	0.2 J	6.9	16
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l			
1,1-Dichloroethane	75-34-3	ug/l	2.5	13	20
1,1-Dichloroethene	75-35-4	ug/l	0.81	1.5	6.4
1,2,4-Trimethylbenzene	95-63-6	ug/l	0.35 J	0.1	1.8
1,2-Dichloroethane	107-06-2	ug/l		0.66	1.3
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	0.11 J	0.08	0.96
Benzene	71-43-2	ug/l	0.07 J	1.2	0.19 J
Carbon Disulfide	75-15-0	ug/l		0.24	
Chlorobenzene	108-90-7	ug/l			
Chloroethane	75-00-3	ug/l			
Chloroform	67-66-3	ug/l			0.27
cis-1,2-Dichloroethene	156-59-2	ug/l	8.5	19	69
Dichlorodifluoromethane	75-71-8	ug/l			0.09
Ethylbenzene	100-41-4	ug/l	0.16 J	0.38 J	0.61
Isopropylbenzene	98-82-8	ug/l		0.18	0.18
M, P Xylenes	179601-23-1	ug/l	0.55	0.67	1.6
Methyl tert-Butyl Ether	1634-04-4	ug/l	0.49 J	0.32	0.21
Methylcyclohexane	108-87-2	ug/l			
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	0.28 J	0.97	1.4
Styrene	100-42-5	ug/l	0.1 J		0.2
Toluene	108-88-3	ug/l	0.31 J	0.57	9.4
trans-1,2-Dichloroethene	156-60-5	ug/l		0.13	0.12
Trichloroethene (TCE)	79-01-6	ug/l	1.1	4.9	19
Vinyl Chloride	75-01-4	ug/l		9.8	3.1
Total SVOCs			**20.3**	**49.1**	**344.4**
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	3.2	4	6.3
1-methylnaphthalene	90-12-0	ug/l	1.1 J	3.8 J	24
2,4-Dimethylphenol	105-67-9	ug/l			
2-Methylnaphthalene	91-57-6	ug/l	2 J		23
Acenaphthene	83-32-9	ug/l	2.3 J	9.7	46
Acenaphthylene	208-96-8	ug/l			1.4 J
Anthracene	120-12-7	ug/l			2.2 J
Biphenyl (Diphenyl)	92-52-4	ug/l		1.3 J	12
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l			4.8 J
Carbazole	86-74-8	ug/l		1.8 J	4.3 J
Dibenzofuran	132-64-9	ug/l	1.7 J	7.9	37
Fluoranthene	206-44-0	ug/l		2.4 J	14
Fluorene	86-73-7	ug/l	1.7 J	6.9	38
Naphthalene	91-20-3	ug/l	5.2	2.5 J	57
Phenanthrene	85-01-8	ug/l	3.1 J	7.4	67
Pyrene	129-00-0	ug/l		1.4 J	7.4

J The associated value is an estimated quantity.
N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	MW-20B	MW-21B	MW-22B
		SYS_SAMPLE_CODE	Bedrock MW-20B-20221116	Bedrock MW-21B-20221116	Bedrock MW-22B-20230112
Analyte	**CAS**	**Units**			
		Total VOC TICs	***12.09***	***56.79***	***196.24***
1,4-Dihydronaphthalene	000612-17-9	ug/l			
1H-Indazole, 3,6-dimethyl-	007746-28-3	ug/l			
1H-Indazole, 5,7-dimethyl-	043067-41-0	ug/l			
1H-Indene, 1-methylene-	002471-84-3	ug/l	2 JN		
1H-Indene, 2,3-Dihydro-1,1-Dimethyl-	017059-48-2	ug/l			
1H-Indene, 2,3-Dihydro-2-Me...	006682-71-9	ug/l			1.1 JN
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6	ug/l			4.7 JN
1H-Indene, 2,3-dihydro-5-methyl-	000874-35-1	ug/l			
1H-Indene, 2,3-dihydro-4,6-dimethy	001685-82-1	ug/l			1.1 JN
1H-Pyrrolo[2,3-b]pyridine, 2-methy	023612-48-8	ug/l			
2-(2-Hydroxyphenyl)buta-1,3-diene	038865-47-3	ug/l			
2H-Cyclopenta[d]pyridazine	000270-64-4	ug/l			
2-Methylindene	002177-47-1	ug/l			
2-Propenal, 3-phenyl-	000104-55-2	ug/l			
3-Buten-2-one, 4-phenyl-	000122-57-6	ug/l			
3-Fluoro-para-anisaldehyde	000351-54-2	ug/l			
3-Methylphenylacetylene	000766-82-5	ug/l			
4-Aminobenzyl cyanide	003544-25-0	ug/l			
4-Methyl-1H-benzimidazole	1000486-24-5	ug/l			
Azulene	000275-51-4	ug/l		4.5 JN	91 JN
Benzene, (1-butylheptyl)-	004537-15-9	ug/l			
Benzene, (1-butylhexyl)-	004537-11-5	ug/l			
Benzene, (1-ethylnonyl)-	004536-87-2	ug/l			
Benzene, (1-ethyloctyl)-	004621-36-7	ug/l			
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4	ug/l			
Benzene, (1,2-dimethyl-1-propenyl)	000769-57-3	ug/l			0.94 JN
Benzene, (1-methylnonyl)-	004537-13-7	ug/l			
Benzene, (1-pentylhexyl)-	004537-14-8	ug/l			
Benzene, (1-propylheptyl)-	004537-12-6	ug/l			
Benzene, (1-propylnonyl)-	002719-64-4	ug/l			
Benzene, (1-propyloctyl)-	004536-86-1	ug/l			
Benzene, (2-methyl-1-butenyl)-	056253-64-6	ug/l			
Benzene, (3-methyl-2-butenyl)-	004489-84-3	ug/l			
Benzene, 1,2,3,5-tetramethyl-	000527-53-7	ug/l			
Benzene, 1,2,3-trimethyl-	000526-73-8	ug/l		0.8 JN	1.4 JN
Benzene, 1,2,4,5-Tetramethyl-	000095-93-2	ug/l			1.1 JN
Benzene, 1-Ethenyl-3-Ethyl-	007525-62-4	ug/l		1.6 JN	
Benzene, 1-ethenyl-3-methyl-	000100-80-1	ug/l			
Benzene, 1-ethenyl-4-ethyl-	003454-07-7	ug/l		1.7 JN	
Benzene, 1-ethyl-2,4-dimethyl-	000874-41-9	ug/l		0.53 JN	1.4 JN
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l		0.5 JN	
Benzene, 1-ethyl-3-methyl-	000620-14-4	ug/l			
Benzene, 1-ethyl-4-methyl-	000622-96-8	ug/l			
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4	ug/l			
Benzene, 1-pentenyl-	000826-18-6	ug/l			
Benzene, 1-propynyl-	000673-32-5	ug/l			
Benzene, 2-ethenyl-1,3,5-trimethyl	000769-25-5	ug/l			
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l			2.9 JN
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l		1.1 JN	
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6	ug/l			
Benzo[b]thiophene, 2-methyl-	001195-14-8	ug/l			1.1 JN
Benzo[b]thiophene, 5-methyl-	014315-14-1	ug/l			
Benzo[b]thiophene, 6-methyl-	016587-47-6	ug/l			
Benzo[c]thiophene	000270-82-6	ug/l	1.4 JN	1.5 JN	3.7 JN
Benzofuran	000271-89-6	ug/l			1.4 JN
Benzofuran, 2-methyl-	004265-25-2	ug/l		1.9 JN	3.7 JN
Benzofuran, 4,7-dimethyl-	028715-26-6	ug/l			
Benzofuran, 7-methyl-	017059-52-8	ug/l		2.2 JN	1.2 JN
Benzonitrile, 4-(dimethylamino)-	001197-19-9	ug/l			
Cinnamaldehyde, (E)-	014371-10-9	ug/l			
Cycloprop[a]indene, 1,1a,6,6a-tetr	015677-15-3	ug/l			
Dodecanal	000112-54-9	ug/l			
Dodecane, 1-chloro-	000112-52-7	ug/l			
Ethane, 1-chloro-1,1-difluoro-	000075-68-3	ug/l	0.59 JN		3.8 JN
Indan, 1-methyl-	000767-58-8	ug/l			2.6 JN
Indane	000496-11-7	ug/l	2.9 JN	8.9 JN	14 JN
Indene	000095-13-6	ug/l	3 JN	3.1 JN	14 JN
Naphthalene, 1,2,3,4-tetrahydro-	000119-64-2	ug/l		0.66 JN	2.6 JN
Naphthalene, 2,3-dimethyl-	000581-40-8	ug/l			10 JN
Naphthalene, 1,3-dimethyl-	000575-41-7	ug/l			3.5 JN
Naphthalene, 1-ethyl-	001127-76-0	ug/l			5.1 JN
Naphthalene, 2,6-dimethyl-	000581-42-0	ug/l			11 JN
Naphthalene, 2,7-dimethyl-	000582-16-1	ug/l			4.4 JN
Naphthalene, 2-ethenyl-	000827-54-3	ug/l			8.5 JN
Naphthalene, 2-ethyl-	000939-27-5	ug/l			
Pentadecanal-	002765-11-9	ug/l			
Sulfur dioxide	007446-09-5	ug/l			
Tetradecanal	000124-25-4	ug/l			
Tetradecane, 1-chloro-	002425-54-9	ug/l			
Total Alkane Tics	E966796	ug/l	2.2	25	

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N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."

Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	MW-20B Bedrock	MW-21B Bedrock	MW-22B Bedrock
		SYS_SAMPLE_CODE	MW-20B-20221116	MW-21B-20221116	MW-22B-20230112
Analyte	**CAS**	**Units**			
Tridecanal	010486-19-8	ug/l			
Unknown-01	UNKNOWN-01	ug/l		2.8 J	
	Total SVOC TICs		**14.7**	**14.7**	**81.9**
1(2H)-Acenaphthylenone	002235-15-6	ug/l			
1(2H)-Quinolinecarboxaldehyde, 3,4	002739-16-4	ug/l			
1-Acenaphthenol	006306-07-6	ug/l			
1-Hexanol, 2-ethyl-	000104-76-7	ug/l	7.1 JN		
1H-Inden-1-ol, 2,3-dihydro-	006351-10-6	ug/l			
1H-Inden-1-one, 2,3-dihydro-	000083-33-0	ug/l			
1H-Indene, 2,3-dihydro-4-methyl-	000824-22-6	ug/l			
1H-Indene-2-carboxylic acid	041712-14-5	ug/l			
1H-Indenol	056631-57-3	ug/l			
1H-Isoindole, 3-methoxy-4,7-dimeth	100813-60-3	ug/l			
1-Isopropenylnaphthalene	001855-47-6	ug/l			
1-Naphthalenamine, 5,6,7,8-tetrahy	013541-35-0	ug/l			
1-Naphthalenemethanol	004780-79-4	ug/l			
1-Naphthalenol, 2-amino-	000606-41-7	ug/l			
2(1H)-Quinolinone, 3-methyl-	002721-59-7	ug/l			
2(1H)-Quinolinone, 4,6-dimethyl-	023947-37-7	ug/l			
2(1H)-Quinolinone, 4,8-dimethyl-	005349-78-0	ug/l			
2(1H)-Quinolinone, 4-methyl-	000607-66-9	ug/l			
2,3-Dimethylquinolin-4(1H)-one	058596-45-5	ug/l			
2,4,7,9-Tetramethyl-5-decyn-4,7-di	000126-86-3	ug/l	5.6 JN		
2,6-Lutidine	000108-48-5	ug/l			
2-Indolinone, ethyl ether	1000453-17-4	ug/l			
2-Methylindene	002177-47-1	ug/l			
2-Naphthalenecarbonitrile	000613-46-7	ug/l			
2-Naphthalenol, 5-amino-	000086-97-5	ug/l			
2-Propenal, 3-phenyl-	000104-55-2	ug/l			
3-(Carboxymethyl)benzoic acid	1000481-02-3	ug/l		3.2 JN	
3,4-Dihydrocyclopenta[b]indol-1(2H	1000305-37-5	ug/l			
3,4-Methylenedioxyphenylacetic aci	002861-28-1	ug/l			
3-Methylbenzothiophene	001455-18-1	ug/l			
3-Methylphenylacetylene	000766-82-5	ug/l		2 JN	
3-Phenyl-2-propyn-1-ol	001504-58-1	ug/l			
4H-Benzo[def]carbazole	000203-65-6	ug/l			
4H-Cyclopenta[Def]Phenanthrene	000203-64-5	ug/l			6.1 JN
4-Methyl-1H-benzimidazole	1000486-24-5	ug/l			
4-Methylcarbazole	003770-48-7	ug/l			
4-Quinolinol, 2-methyl-	000607-67-0	ug/l			
5-Amino-1-naphthol	000083-55-6	ug/l			
5-Aminoindan	024425-40-9	ug/l			
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	ug/l			
7-Methyl-1(2H)-isoquinolinone	026829-47-0	ug/l			
8-Methylquinolin-2(1H)-one	1000502-93-2	ug/l			
9H-Fluoren-3-ol	006344-67-8	ug/l			
9H-Fluorene, 2-methyl-	001430-97-3	ug/l			2.4 JN
9-Octadecenamide, (Z)-	000301-02-0	ug/l			
1-Isobutoxy-2-ethylhexane	1000139-90-3	ug/l			2.7 JN
2,4,6-Cycloheptatrien-1-one, 2-phe	014562-09-5	ug/l			5.6 JN
2-Dibenzofuranol	000086-77-1	ug/l			
3-Hydroxybiphenyl	000580-51-8	ug/l			
3-Phenylbut-1-ene	000934-10-1	ug/l			
9,12-Octadecadienoic acid (Z,Z)-	000060-33-3	ug/l			
9,17-Octadecadienal, (Z)-	056554-35-9	ug/l			
Adamantane-1-carboxylic acid	000828-51-3	ug/l			
Anthracene, 1-methyl-	000610-48-0	ug/l			
Anthracene, 9,10-dihydro-	000613-31-0	ug/l			
Benzene, (1-ethylpropyl)-	001196-58-3	ug/l			
Benzene, 1,1-(bromomethylene)bis-	000776-74-9	ug/l			
Benzene, 1,2,3,4-tetramethyl-	000488-23-3	ug/l			
Benzene, 1,2,3-trimethyl-	000526-73-8	ug/l			
Benzene, 1,3-Dimethyl-	000108-38-3	ug/l			
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l			
Benzene, 1-ethyl-3-methyl-	000620-14-4	ug/l			
Benzene, 1-ethyl-4-methyl-	000622-96-8	ug/l			
Benzene, 1-Methyl-2-(1-Meth...	000527-84-4	ug/l			
Benzene, 1-propynyl-	000673-32-5	ug/l			
Benzene, 2-ethenyl-1,4-dimethyl-	002039-89-6	ug/l			
Benzene, 4-ethyl-1,2-dimethyl-	000934-80-5	ug/l			
Benzene, cyclopropyl-	000873-49-4	ug/l			
Benzo[b]thiophene, 2,3-dihydro-	004565-32-6	ug/l			
Benzo[b]thiophene, 2-methyl-	001195-14-8	ug/l			
Benzo[b]thiophene, 4-methyl-	014315-11-8	ug/l			
benzo[b]thiophene-5-carboxylic aci	1000404-77-7	ug/l			
Benzo[c]thiophene	000270-82-6	ug/l			
Benzo[c]thiophene, 1,3-dihydro-	002471-92-3	ug/l			
Benzofuran, 2-methyl-	004265-25-2	ug/l			
Benzophenone	000119-61-9	ug/l			
Butanoic acid	000107-92-6	ug/l			
Butoxyacetic acid	002516-93-0	ug/l			

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Table 4-8
Monitoring Well Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

		SYS_LOC_CODE	MW-20B Bedrock	MW-21B Bedrock	MW-22B Bedrock
		SYS_SAMPLE_CODE	MW-20B-20221116	MW-21B-20221116	MW-22B-20230112
Analyte	**CAS**	**Units**			
Benzene, (1-methyl-2-cyclopropen-1	065051-83-4	ug/l			
Benzene, 1-ethenyl-4-ethyl-	003454-07-7	ug/l			
Benzene, 1-ethyl-2-methyl-	000611-14-3	ug/l			
Benzenesulfonamide, N,4-dimethyl-	000640-61-9	ug/l			2.3 JN
Benzofuran	000271-89-6	ug/l			
Benzofuran, 2-methyl-	004265-25-2	ug/l			
Benzofuran, 7-methyl-	017059-52-8	ug/l			
Benzonitrile, 3-methyl-	000620-22-4	ug/l			
Benzonitrile, 4-methyl-	000104-85-8	ug/l			
Cinnamaldehyde, (E)-	014371-10-9	ug/l			
Dibenzofuran, 4-methyl-	007320-53-8	ug/l			
Dibenzothiophene	000132-65-0	ug/l		2.1 JN	9.8 JN
Dichloroacetic acid, heptadecyl es	1000282-98-2	ug/l			
Dibenzofuran, 4-methyl-	007320-53-8	ug/l			4.6 JN
Diphenylmethane	000101-81-5	ug/l			3.6 JN
Ethanone, 1-(2,3,4-trihydroxypheny	000528-21-2	ug/l			
Fluorene-4-carboxylic acid	006954-55-8	ug/l			
Indane	000496-11-7	ug/l		2.7 JN	5.6 JN
Indane-5-carboxylic acid	065898-38-6	ug/l			
Indene	000095-13-6	ug/l	2 JN		9.7 JN
Isoquinoline	000119-65-3	ug/l			
Isoquinoline, 5,6,7,8-tetrahydro-	036556-06-6	ug/l			
Methylchromone	000085-90-5	ug/l			
Naphthalene, 1,3-dimethyl-	000575-41-7	ug/l			
Naphthalene, 1,7-dimethyl-	000575-37-1	ug/l			
Naphthalene, 2,3-dimethyl-	000581-40-8	ug/l			8.7 JN
Naphthalene, 2,6-dimethyl-	000581-42-0	ug/l			4.6 JN
n-Hexadecanoic acid	000057-10-3	ug/l		2.6 JN	
Naphthalene, 1,6-dimethyl-	000575-43-9	ug/l			2.8 JN
Naphthalene, 1-ethyl-	001127-76-0	ug/l			4.4 JN
Octadecanoic acid	000057-11-4	ug/l			
o-Hydroxybiphenyl	000090-43-7	ug/l			
Pyridine, 2,3-dimethyl-	000583-61-9	ug/l			
Pyridine, 2-ethyl-6-methyl-	001122-69-6	ug/l			
Pyridine, 2-methyl-	000109-06-8	ug/l			
Pyridine, 3,4-dimethyl-	000583-58-4	ug/l			
Pentafluoropropionic acid, hexadec	006222-07-7	ug/l			2.2 JN
Phenanthrene, 1-Methyl-	000832-69-9	ug/l			4.1 JN
Phenanthrene, 2-Methyl- (01)	002531-84-2	ug/l			2.7 JN
p-Hydroxybiphenyl	000092-69-3	ug/l			
Quinoline, 1,2,3,4-tetrahydro-	000635-46-1	ug/l			
Quinoline, 2-methyl-	000091-63-4	ug/l			
Supraene	007683-64-9	ug/l		2.1 JN	
trans-4-Phenyl-3-butenoic acid	001914-58-5	ug/l			
Trifluoroacetoxy hexadecane	006222-03-3	ug/l			
Unknown-01	UNKNOWN-01	ug/l			
Unknown-02	UNKNOWN-02	ug/l			
Alkalinity, Total (As Caco3)	ALK	mg/l			
Hardness (As Caco3)	HARD	mg/l			
Nitrogen, Nitrate (As N)	14797-55-8	mg/l			
Sulfate (As So4)	14808-79-8	mg/l			

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Table 4-9
Molar Fractions and Effective Solubility Calculations
GCL Tie and Treating Superfund Site
Sidney, New York

				<VOCs										SVOCs>																						
Event	**Location**	**Sample**	**End Depth (ft)**	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene (Mesitylene)	Benzene	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	M, P Xylenes	o-Xylene (1,2-Dimethylbenzene)	Styrene	Toluene	1-methylnaphthalene	2-Methylnaphthalene	4-Methylphenol (P-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Biphenyl (Diphenyl)	bis(2-Ethylhexyl) Phthalate	Carbazole	Chrysene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	
MW (ug/umol)				1.20E+02	1.20E+02	7.81E+01	2.08E+02	1.06E+02	1.20E+02	1.06E+02	1.06E+02	1.04E+02	9.21E+01	1.42E+02	1.42E+02	1.08E+02	1.54E+02	1.52E+02	1.78E+02	2.28E+02	2.52E+02	2.52E+02	2.76E+02	2.52E+02	1.54E+02	3.91E+02	1.67E+02	2.28E+02	1.68E+02	2.02E+02	1.66E+02	2.76E+02	1.28E+02	1.78E+02	2.02E+02	
Csat (umol/L)				6.26E+02	4.01E+02	2.30E+04	2.70E+03	1.94E+03	4.02E+02	1.63E+03	1.92E+03	1.54E+03	5.69E+03	1.81E+02	1.73E+02	2.13E+05	2.25E+01	1.06E+02	7.24E+00	6.13E-02	6.42E-03	5.95E-03	9.55E-04	3.17E-03	4.85E+01	1.02E+00	1.08E+01	2.63E-02	5.95E+01	1.31E+00	1.02E+01	6.13E-02	2.47E+02	6.62E+00	6.43E-02	
Laboratory Analytical Results																																				
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-100-120	120	4.40E+01	2.60E+01			3.90E+00	4.00E+00	1.80E+01	8.50E+00		6.20E+00	3.60E+02	7.60E+02		5.10E+02	2.30E+01	6.20E+01	9.50E+01	4.60E+01	6.20E+01	1.30E+01	2.40E+01	1.40E+02		5.10E+01	5.60E+01	4.00E+02	4.80E+02	4.10E+02	1.40E+01	1.40E+03	9.80E+02	3.40E+02	
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-120-140	140	7.60E+00	4.00E+00			6.60E-01	2.80E-01	2.90E+00	1.40E+00		2.50E+00	7.30E+01	1.60E+02		1.10E+02	4.10E+00	8.00E+00	4.50E+00					2.80E+01		1.00E+01		7.30E+01	4.50E+01	7.50E+01		2.80E+02	1.60E+02	3.00E+01	
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-140-160	160	9.20E-01	5.00E-01					2.60E-01	1.40E-01		1.20E+01	1.40E+01	2.60E+01		2.30E+01								5.40E+00				1.70E+01	1.20E+01	1.90E+01		3.60E+01	4.40E+01	6.90E+00	
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-75-85	85										1.50E+00																					4.60E+00		
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100	100	1.00E+00	5.40E-01					2.80E-01	1.40E-01		5.70E+00	1.70E+01	3.50E+01		2.80E+01		3.50E+00	4.70E+00					7.40E+00				2.20E+01	2.50E+01	2.50E+01		4.30E+01	6.10E+01	1.60E+01	
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100-1	100	1.00E+00	5.40E-01					2.80E-01			5.60E+00	1.50E+01	3.10E+01		2.60E+01		3.20E+00	3.70E+00					6.60E+00				2.00E+01	2.20E+01	2.30E+01		3.90E+01	5.60E+01	1.40E+01	
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-100-108.5	108.5	6.30E+00	3.40E+00			4.60E-01	2.60E-01	1.90E+00	1.10E+00		6.60E-01	1.50E+02	2.50E+02	3.20E+01	2.10E+02	1.20E+01	2.30E+01	3.00E+01	1.50E+01	2.00E+01	4.30E+00	6.20E+00	4.30E+01		1.80E+01	1.90E+01	1.80E+02	2.00E+02	1.90E+02	4.60E+00	4.20E+02	4.30E+02	7.60E+01	
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-110-120	120	3.30E+00	1.90E+00			2.20E-01	1.40E-01	9.40E-01	6.20E-01		1.50E+00	4.50E+01	6.60E+01	1.50E+01	6.20E+01	3.30E+00	5.70E+00	5.00E+00					2.00E+01		7.90E+00		4.90E+01	2.80E+01	4.90E+01		9.20E+01	7.60E+01	1.90E+01	
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-120-140	140	2.30E+00	1.10E+00			4.20E-01		1.70E+00	8.80E-01		9.40E-01	1.60E+01	3.00E+01		2.40E+01								6.30E+00				1.80E+01	8.50E+00	2.00E+01		6.40E+01	3.80E+01	5.10E+00	
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-140-160	160										1.20E+00		2.70E+00		3.40E+00													6.70E+00	3.00E+00		2.90E+00	7.40E+00	4.20E+00	
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-80-90	90	4.30E+00	1.60E+00			1.00E+00	1.60E-01	3.90E+00	1.60E+00	1.00E+00	4.30E+00	3.70E+01	6.50E+01		3.80E+01	1.10E+01	5.60E+00						1.30E+01		1.30E+01		3.50E+01	8.80E+00	3.90E+01		3.30E+02	5.40E+01	4.90E+00	
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-90-100	100	1.10E+01	6.20E+00			5.00E-01	4.60E-01	2.10E+00	1.30E+00		1.20E+00	2.00E+02	3.20E+02	1.90E+01	2.80E+02	1.00E+01	3.00E+01	3.80E+01	1.80E+01	2.40E+01	5.10E+00	9.60E+00	5.50E+01		2.00E+01	2.60E+01	2.20E+02	2.30E+02	2.30E+02	5.50E+00	5.10E+02	5.00E+02	1.60E+02	
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-100-110	110				1.50E+00						7.20E+00													1.10E+01							1.00E+01			
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-110-120	120										1.60E+01				5.60E+00																	8.50E+00	8.80E+00		
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-120-140	140											4.90E+00			1.70E+01		4.20E+00	9.80E+00	4.60E+00	6.30E+00			3.80E+00			4.50E+00	1.60E+01	4.90E+01	2.20E+01		6.00E+00	7.60E+01	3.30E+01	
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-140-150	150										3.00E-01																							
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-150-160	160	4.20E-01	2.40E-01					2.20E-01	2.00E-01		1.50E+00	6.40E+00	5.70E+00		8.80E+00												6.90E+00		6.50E+00		2.80E+01	1.20E+01		
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-90-100	100										2.40E+00				4.00E+00												2.90E+00		2.70E+00		7.10E+00			
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-120-130	130	1.20E-01		3.40E-01							2.20E+00	3.50E+00	7.50E+00		5.80E+00												4.50E+00		4.80E+00		6.90E+00	9.40E+00		
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-130-140	140																															7.50E+00		
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-140-160	160	3.40E-01	1.70E-01			4.40E-01	7.00E-02	7.80E-01	6.10E-01		1.10E+00	1.60E+01	5.50E+00		2.60E+01								5.30E+00		3.80E+00		1.70E+01	6.00E+00	1.50E+01		3.50E+01	2.40E+01		
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-100-120	120	2.30E+00	1.00E+00			6.00E-01		2.30E+00	1.10E+00		2.10E+00	4.20E+01	6.10E+01		4.70E+01		3.10E+00	3.30E+00					1.10E+01		7.30E+00		2.70E+01	2.80E+01	2.70E+01		7.40E+01	5.70E+01	1.70E+01	
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-120-130	130	7.90E+00	3.90E+00			2.10E+00	3.40E-01	8.40E+00	4.00E+00		1.10E+01	8.70E+00	1.50E+01		9.80E+00								2.50E+00				5.90E+00		4.20E+00		7.60E+01	4.60E+00		
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-130-140	140	4.80E-01									4.60E+00	5.00E+00	6.10E+00		8.00E+00												5.40E+00	3.70E+00	5.60E+00		2.80E+01	1.10E+01		
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-90-100	100	1.10E+00	5.40E-01								7.10E+00	1.00E+01	1.90E+01		1.70E+01								3.60E+00	1.20E+01			1.10E+01	7.20E+00	1.10E+01		6.10E+01	2.30E+01	4.40E+00	
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-100-120	120										5.30E+01	2.50E+00	4.30E+00		3.40E+00													3.90E+00			1.00E+01	6.70E+00		
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-120-140	140										1.60E+01																					8.00E+00		
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-140-160	160										1.60E+01																					6.30E+00		
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90	90				4.00E-01					2.20E-01	5.50E+00													7.90E+00										
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90-1	90				4.80E-01					2.80E-01	5.20E+00																							
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-90-100	100										1.30E+01																					4.00E+00		
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-100-120	120	3.00E+00	1.90E+00					6.80E-01	4.00E-01		3.30E+00	5.50E+01	5.00E+01		1.20E+02	3.80E+00	1.00E+01	8.50E+00	3.20E+00	4.70E+00			3.00E+01		6.80E+00	5.30E+00	7.90E+01	5.80E+01	7.90E+01		9.90E+01	1.70E+02	3.60E+01	
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-120-140	140	4.90E+00	2.70E+00			1.30E+00	3.00E-01	4.90E+00	2.70E+00		2.60E+00	5.20E+01	5.20E+01		9.90E+01	3.10E+00	6.50E+00						2.40E+01		8.60E+00		6.30E+01	2.80E+01	6.70E+01		1.90E+02	1.30E+02	1.60E+01	
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-90-100	100	9.60E-01	5.80E-01								6.40E+00	1.70E+01	1.60E+01		3.30E+01								8.30E+00				2.40E+01	1.60E+01	2.40E+01		2.80E+01	3.70E+01	9.60E+00	
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-105-115	115	1.80E+00	1.20E+00			4.80E-01	3.00E-01	2.40E+00	1.80E+00		1.50E+00	2.60E+01	6.10E+00		2.70E+01								7.70E+00		4.50E+00		2.20E+01		1.70E+01		1.50E+02	2.90E+01		
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-115-125	125	6.80E-01	5.20E-01		6.80E-01	4.60E-01		1.20E+00	1.20E+00		2.70E+00	2.00E+01	1.20E+01		4.40E+01								1.10E+01				3.50E+01	2.00E+01	3.50E+01		3.90E+01	7.50E+01	1.30E+01	
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-125-135	135	1.70E+00	1.20E+00			7.60E-01	2.20E-01	2.50E+00	1.90E+00		1.40E+00	3.30E+01	2.30E+01		5.80E+01								1.40E+01		5.60E+00		4.10E+01	7.50E+00	3.90E+01		1.10E+02	5.70E+01	4.50E+00	
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140	140	1.30E+00	1.20E+00			4.40E-01	1.40E-01	1.40E+00	1.10E+00		4.90E+00	1.20E+02	9.70E+01		3.70E+02		8.00E+01	1.70E+02		9.40E+01						9.60E+01	3.10E+02	8.00E+02	3.80E+02		9.10E+01	1.30E+03	5.40E+02	
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140-1	140	1.20E+00	1.10E+00			4.40E-01		1.40E+00	1.00E+00		4.60E+00	9.00E+01	8.20E+01		2.40E+02								5.50E+01				1.90E+02	2.40E+02	2.10E+02		8.70E+01	5.30E+02	1.60E+02	
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-140-160	160	1.10E+00	1.10E+00						3.30E-01		1.50E+01																							
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-110-120	120	6.00E+00	3.50E+00			1.60E+00	8.20E-01	6.90E+00	4.70E+00	4.60E-01	6.10E+00	6.90E+01	3.90E+01		9.10E+01		6.40E+00	4.00E+00					3.10E+01		1.80E+01		7.50E+01	3.40E+01	6.20E+01		4.00E+02	8.70E+01	2.20E+01	
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-120-140	140	6.30E+00	3.70E+00			2.10E+00	8.80E-01	8.10E+00	5.20E+00	5.80E-01	4.60E+00	7.30E+01	3.20E+01		8.70E+01	3.60E+00	4.80E+00						2.90E+01		1.90E+01		7.20E+01	2.10E+01	6.10E+01		4.00E+02	1.10E+02	1.30E+01	
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-140-160	160	2.90E+00	1.60E+00			9.80E-01		4.10E+00	2.90E+00		2.00E+01	3.10E+01	1.90E+01		5.30E+01		5.60E+00	4.80E+00					1.40E+01		1.40E+01		4.50E+01	3.70E+01	4.50E+01		2.30E+02	1.20E+02	2.40E+01	
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-115-140	140	3.20E-01				2.60E-01	2.00E-01	7.00E-01	1.00E+00		8.80E+00	9.50E+00			1.40E+01								4.70E+00				1.30E+01	5.00E+00	1.10E+01		2.90E+01	2.20E+01		
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-140-160	160								2.70E-01		6.20E+01																					4.90E+00	7.00E+00		
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-140-150	150										1.90E+00																					4.40E+00		
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-190-200	200										5.40E+01													1.30E+01										
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-83-110	110									8.90E+00																								
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120	120	2.70E+00	1.80E+00			6.40E-01		2.50E+00	1.70E+00		9.20E-01	2.90E+01	5.90E+00		3.30E+01								7.90E+00		5.20E+00		2.20E+01		1.70E+01		1.70E+02	2.20E+01		
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120-1	120	2.70E+00	1.80E+00			6.40E-01		2.60E+00	1.70E+00		9.60E-01	2.70E+01	5.40E+00		3.10E+01								7.30E+00		4.80E+00		2.00E+01		1.60E+01		1.70E+02	2.10E+01		
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-120-130	130	3.40E+00	1.80E+00			1.80E+00	4.00E-01	4.70E+00	3.20E+00		6.10E+00	3.40E+01	1.50E+01		3.70E+01								7.80E+00		6.60E+00		2.20E+01		1.80E+01		2.10E+02	2.00E+01		
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-130-140	130										6.20E+01													2.30E+01							4.10E+00	4.40E+00		
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-140-160	140										5.90E+01													4.50E+00										
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-110-120	120	1.50E+01	7.40E+00			1.40E+00		6.40E+00	3.20E+00		1.30E+01	1.20E+02	2.70E+02		1.90E+02		2.40E+01	3.90E+01	1.60E+01	2.40E+01			4.10E+01		1.50E+01	1.90E+01	1.50E+02	2.50E+02	1.60E+02		5.60E+02	5.00E+02	1.50E+02	
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-130-140	140	2.20E+00	1.20E+00								9.20E+00	2.00E+01	3.90E+01		2.70E+01								7.10E+00		3.30E+00		1.90E+01	1.10E+01	2.00E+01		7.40E+01	3.90E+01	7.20E+00	
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-140-160	160										4.10E+01				2.60E+00																	6.30E+00	6.10E+00		
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-120-130	130										1.20E+01																							
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-130-140	140	3.30E+00		4.10E+00		3.80E+00		5.10E+00	6.10E+00		1.40E+01																							
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-140-150	150	3.00E+00		1.60E+00		3.70E+00		3.80E+00	4.10E+00	7.00E-01	9.40E+00																							
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-150-160	160	6.80E+00	1.80E+00	2.10E+00		5.50E+00	3.50E-01	1.20E+01	7.60E+00		4.20E+01																							
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-100-120	120	1.50E+01	7.60E+00			3.90E+00		1.50E+01	7.40E+00		4.80E+00	1.10E+02	1.50E+02		1.40E+02	5.80E+00	8.00E+00						3.70E+01		2.30E+01		9.20E+01	3.20E+01	9.00E+01		6.40E+02	1.50E+02	2.00E+01	
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-120-140	140	1.70E+00	9.00E-01			3.70E-01		1.40E+00	7.00E-01		4.30E+01	1.80E+01	3.10E+01		4.30E+01		1.60E+01	2.60E+01	1.20E+01	1.60E+01		6.30E+00	9.60E+00			1.70E+01	3.30E+01	1.40E+02	4.60E+01	3.30E+00	5.80E+01	1.90E+02	9.30E+01	
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-140-160	160										3.70E+01													1.60E+01										
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-90-100	100										2.90E+00																							
Groundwater Samples	EW-1I	EW-1I-20221118	56.3	2.00E+00		1.50E+01		4.20E-01	7.40E+00	3.60E+00	1.20E+01		1.50E+00	1.20E+01			4.70E+00								7.60E+00								2.70E+00			
Groundwater Samples	EW-2I	EW-2I-20221118	59.4			2.80E-01		4.00E-02		5.00E-02	7.00E-02																									
Groundwater Samples	EW-4I	EW-4I-20221116	90.5			5.70E+00			9.20E+00	1.80E-01	5.70E-01						6.10E+00																			
Groundwater Samples	EW-5I	EW-5I-20221117	55.1			1.10E+00			5.60E-01																											
Groundwater Samples	MW-03I	MW-3I-20221118	61.9	2.20E-01		9.60E-01		7.90E-01	1.80E+00	2.60E+00	6.10E+00		5.00E-01	2.80E+00			3.40E+01								1.40E+01		1.50E+01		1.00E+01				1.40E+00			
Groundwater Samples	MW-08B	MW-08B-20221116	121.4			4.00E-01																														
Groundwater Samples	MW-08DI	MW-08DI-20221116	54.7			5.60E+00		3.00E-01	2.30E+00	4.30E-01	1.80E+00		3.40E-01																								
Groundwater Samples	MW-11B	MW-11B-20221115	169.7	1.00E-01		7.90E+00		7.80E-01	9.00E-02	5.00E-01	8.40E-01		2.40E-01																								
Groundwater Samples	MW-12B	MW-12B-20221117	129.7	7.00E+00	5.30E+00	1.50E+00		4.30E+00	1.40E+00	1.50E+01	1.00E+01		2.80E+00	5.70E+01			9.30E+01	3.90E+00	4.00E+00						3.10E+01		2.50E+01		6.00E+01	1.00E+01	6.10E+01			7.70E+01	5.70E+00	
Groundwater Samples	MW-12I	MW-12I-20221117	54.6	3.60E+00	4.40E-01	1.50E+00		2.00E+01	5.30E+00	9.80E+00	3.00E+01		8.00E+00	2.10E+01			5.50E+01								2.10E+01				3.70E+01		1.40E+00		1.70E+01	3.80E+00		
Groundwater Samples	MW-13B	MW-13B-20221115	169			3.40E-01																														
Groundwater Samples	MW-20B	MW-20B-20221116	105	3.50E-01	1.10E-01	7.00E-02		1.60E-01		5.50E-01	2.80E-01	1.00E-01	3.10E-01	1.10E+00	2.00E+00		2.30E+00												1.70E+00		1.70E+00		5.20E+00	3.10E+00		
Groundwater Samples	MW-21B	MW-21B-20221116	147	1.00E-01	8.00E-02	1.20E+00		3.80E-01	1.80E-01	6.70E-01	9.70E-01		5.70E-01	3.80E+00			9.70E+00								1.30E+00		1.80E+00		7.90E+00	2.40E+00	6.90E+00		2.50E+00	7.40E+00	1.40E+00	
Groundwater Samples	MW-21I	MW-21I-20221116	115			6.20E-01																														
Groundwater Samples	MW-22B	MW-22B-20230112	127	1.80E+00	9.60E-01	1.90E-01		6.10E-01	1.80E-01	1.60E+00	1.40E+00	2.00E-01	9.40E+00	2.40E+01	2.30E+01		4.60E+01	1.40E+00	2.20E+00						1.20E+01	4.80E+00	4.30E+00		3.70E+01	1.40E+01	3.80E+01		5.70E+01	6.70E+01	7.40E+00	
Groundwater Samples	MW-22I	MW-22I-3-20230117	50	5.00E+01	1.90E+01	1.00E+01		3.20E+01	1.90E+00	1.40E+02	6.30E+01	3.20E+01	1.20E+02	1.40E+02	2.00E+02		2.30E+01	3.50E+00							1.20E+01	2.60E+00	5.20E+01		1.20E+01		1.40E+00		5.30E+03			

Table 4-9
Molar Fractions and Effective Solubility Calculations
GCL Tie and Treating Superfund Site
Sidney, New York

																	<VOCs	SVOCs>																							
Event	**Location**	**Sample**	**End Depth (ft)**	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene (Mesitylene)	Benzene	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	M, P Xylenes	o-Xylene (1,2-Dimethylbenzene)	Styrene	Toluene	1-methylnaphthalene	2-Methylnaphthalene	4-Methylphenol (P-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Biphenyl (Diphenyl)	bis(2-Ethylhexyl) Phthalate	Carbazole	Chrysene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	
MW (ug/umol)				1.20E+02	1.20E+02	7.81E+01	2.08E+02	1.06E+02	1.20E+02	1.06E+02	1.06E+02	1.04E+02	9.21E+01	1.42E+02	1.42E+02	1.08E+02	1.54E+02	1.52E+02	1.78E+02	2.28E+02	2.52E+02	2.52E+02	2.76E+02	2.52E+02	1.54E+02	3.91E+02	1.67E+02	2.28E+02	1.68E+02	2.02E+02	1.66E+02	2.76E+02	1.28E+02	1.78E+02	2.02E+02	
Csat (umol/L)				6.26E+02	4.01E+02	2.30E+04	2.70E+03	1.94E+03	4.02E+02	1.63E+03	1.92E+03	1.54E+03	5.69E+03	1.81E+02	1.73E+02	2.13E+05	2.25E+01	1.06E+02	7.24E+00	6.13E-02	6.42E-03	5.95E-03	9.55E-04	3.17E-03	4.85E+01	1.02E+00	1.08E+01	2.63E-02	5.95E+01	1.31E+00	1.02E+01	6.13E-02	2.47E+02	6.62E+00	6.43E-02	
Conc. Analyte in umol/L																																								Sum of Analytes (umol/L)
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-100-120	120	3.66E-01	2.16E-01			3.67E-02	3.33E-02	1.70E-01	8.01E-02		6.73E-02	2.53E+00	5.34E+00		3.31E+00	1.51E-01	3.48E-01	4.16E-01	1.82E-01	2.46E-01	4.70E-02	9.51E-02	9.08E-01		3.05E-01	2.45E-01	2.38E+00	2.37E+00	2.47E+00	5.07E-02	1.09E+01	5.50E+00	1.68E+00	4.05E+01
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-120-140	140	6.32E-02	3.33E-02			6.22E-03	2.33E-03	2.73E-02	1.32E-02		2.71E-02	5.13E-01	1.13E+00		7.13E-01	2.69E-02	4.49E-02	1.97E-02					1.82E-01		5.98E-02		4.34E-01	2.22E-01	4.51E-01		2.18E+00	8.98E-01	1.48E-01	7.20E+00
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-140-160	160	7.65E-03	4.16E-03					2.45E-03	1.32E-03		1.30E-01	9.85E-02	1.83E-01		1.49E-01								3.50E-02				1.01E-01	5.93E-02	1.14E-01		2.81E-01	2.47E-01	3.41E-02	1.45E+00
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-75-85	85										1.63E-02																					2.58E-02			4.21E-02
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100	100	8.32E-03	4.49E-03					2.64E-03	1.32E-03		6.19E-02	1.20E-01	2.46E-01		1.82E-01		1.96E-02	2.06E-02					4.80E-02				1.31E-01	1.24E-01	1.50E-01		3.36E-01	3.42E-01	7.91E-02	1.88E+00
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100-1	100	8.32E-03	4.49E-03					2.64E-03			6.08E-02	1.05E-01	2.18E-01		1.69E-01		1.80E-02	1.62E-02					4.28E-02				1.19E-01	1.09E-01	1.38E-01		3.04E-01	3.14E-01	6.92E-02	1.70E+00
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-100-108.5	108.5	5.24E-02	2.83E-02			4.33E-03	2.16E-03	1.79E-02	1.04E-02		7.16E-03	1.05E+00	1.76E+00	2.96E-01	1.36E+00	7.88E-02	1.29E-01	1.31E-01	5.95E-02	7.93E-02	1.56E-02	2.46E-02	2.79E-01		1.08E-01	8.32E-02	1.07E+00	9.89E-01	1.14E+00	1.66E-02	3.28E+00	2.41E+00	3.76E-01	1.49E+01
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-110-120	120	2.75E-02	1.58E-02			2.07E-03	1.16E-03	8.85E-03	5.84E-03		1.63E-02	3.16E-01	4.64E-01	1.39E-01	4.02E-01	2.17E-02	3.20E-02	2.19E-02					1.30E-01		4.72E-02		2.91E-01	1.38E-01	2.95E-01		7.18E-01	4.26E-01	9.39E-02	3.61E+00
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-120-140	140	1.91E-02	9.15E-03			3.96E-03		1.60E-02	8.29E-03		1.02E-02	1.13E-01	2.11E-01		1.56E-01								4.09E-02				1.07E-01	4.20E-02	1.20E-01		4.99E-01	2.13E-01	2.52E-02	1.59E+00
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-140-160	160										1.30E-02		1.90E-02		2.20E-02													3.31E-02	1.80E-02			2.26E-02	4.15E-02	2.08E-02	1.90E-01
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-80-90	90	3.58E-02	1.33E-02			9.42E-03	1.33E-03	3.67E-02	1.51E-02	9.60E-03	4.67E-02	2.60E-01	4.57E-01		2.46E-01	7.23E-02	3.14E-02						8.43E-02		7.77E-02		2.08E-01	4.35E-02	2.35E-01		2.57E+00	3.03E-01	2.42E-02	4.79E+00
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-90-100	100	9.15E-02	5.16E-02			4.71E-03	3.83E-03	1.98E-02	1.22E-02		1.30E-02	1.41E+00	2.25E+00	1.76E-01	1.82E+00	6.57E-02	1.68E-01	1.66E-01	7.13E-02	9.51E-02	1.85E-02	3.80E-02	3.57E-01		1.20E-01	1.14E-01	1.31E+00	1.14E+00	1.38E+00	1.99E-02	3.98E+00	2.81E+00	7.91E-01	1.85E+01
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-100-110	110				7.20E-03						7.81E-02													2.82E-02								7.80E-02				1.92E-01
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-110-120	120										1.74E-01				3.63E-02																	6.63E-02	4.94E-02			3.26E-01
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-120-140	140											3.45E-02			1.10E-01		2.36E-02	4.29E-02	1.82E-02	2.50E-02			2.46E-02			1.97E-02	9.51E-02	2.42E-01	1.32E-01		4.68E-02	4.26E-01	1.63E-01	1.40E+00
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-140-150	150										3.26E-03																									3.26E-03
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-150-160	160	3.49E-03	2.00E-03					2.07E-03	1.88E-03		1.63E-02	4.50E-02	4.01E-02		5.71E-02												4.10E-02		3.91E-02		2.18E-01	6.73E-02		5.34E-01
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-90-100	100										2.60E-02				2.59E-02												1.72E-02		1.62E-02		5.54E-02			1.41E-01
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-120-130	130	9.98E-04		4.35E-03							2.39E-02	2.46E-02	5.27E-02		3.76E-02												2.68E-02		2.89E-02		5.38E-02	5.27E-02		3.06E-01
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-130-140	140																															4.21E-02			4.21E-02
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-140-160	160	2.83E-03	1.41E-03			4.14E-03	5.82E-04	7.35E-03	5.75E-03		1.19E-02	1.13E-01	3.87E-02		1.69E-01								3.44E-02		2.27E-02		1.01E-01	2.97E-02	9.02E-02		2.73E-01	1.35E-01		1.04E+00
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-100-120	120	1.91E-02	8.32E-03			5.65E-03		2.17E-02	1.04E-02		2.28E-02	2.95E-01	4.29E-01		3.05E-01		1.74E-02	1.45E-02					7.13E-02		4.37E-02		1.61E-01	1.38E-01	1.62E-01		5.77E-01	3.20E-01	8.41E-02	2.71E+00
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-120-130	130	6.57E-02	3.24E-02			1.98E-02	2.83E-03	7.91E-02	3.77E-02		1.19E-01	6.12E-02	1.05E-01		6.35E-02								1.62E-02				3.51E-02		2.53E-02		5.93E-01	2.58E-02		1.28E+00
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-130-140	140	3.99E-03									4.99E-02	3.52E-02	4.29E-02		5.19E-02												3.21E-02	1.83E-02	3.37E-02		2.18E-01	6.17E-02		5.48E-01
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-90-100	100	9.15E-03	4.49E-03								7.71E-02	7.03E-02	1.34E-01		1.10E-01								2.33E-02	3.07E-02			6.54E-02	3.56E-02	6.62E-02		4.76E-01	1.29E-01	2.18E-02	1.25E+00
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-100-120	120										5.75E-01	1.76E-02	3.02E-02		2.20E-02													1.93E-02			7.80E-02	3.76E-02		7.80E-01
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-120-140	140										1.74E-01																						4.49E-02		2.19E-01
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-140-160	160										1.74E-01																						3.53E-02		2.09E-01
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90	90				1.92E-03					2.11E-03	5.97E-02													2.02E-02											8.40E-02
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90-1	90				2.30E-03					2.69E-03	5.64E-02																									6.14E-02
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-90-100	100										1.41E-01																						2.24E-02			1.64E-01
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-100-120	120	2.50E-02	1.58E-02					6.40E-03	3.77E-03		3.58E-02	3.87E-01	3.52E-01		7.78E-01	2.50E-02	5.61E-02	3.72E-02	1.27E-02	1.86E-02			1.95E-01		4.07E-02	2.32E-02	4.70E-01	2.87E-01	4.75E-01		7.72E-01	9.54E-01	1.78E-01	5.15E+00
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-120-140	140	4.08E-02	2.25E-02			1.22E-02	2.50E-03	4.62E-02	2.54E-02		2.82E-02	3.66E-01	3.66E-01		6.42E-01	2.04E-02	3.65E-02						1.56E-01		5.14E-02		3.75E-01	1.38E-01	4.03E-01		1.48E+00	7.29E-01	7.91E-02	5.02E+00
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-90-100	100	7.99E-03	4.83E-03								6.95E-02	1.20E-01	1.13E-01		2.14E-01								5.38E-02				1.43E-01	7.91E-02	1.44E-01		2.18E-01	2.08E-01	4.75E-02	1.42E+00
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-105-115	115	1.50E-02	9.98E-03			4.52E-03	2.50E-03	2.26E-02	1.70E-02		1.63E-02	1.83E-01	4.29E-02		1.75E-01								4.99E-02		2.69E-02		1.31E-01		1.02E-01		1.17E+00	1.63E-01		2.13E+00
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-115-125	125	5.66E-03	4.33E-03		3.26E-03	4.33E-03		1.13E-02	1.13E-02		2.93E-02	1.41E-01	8.44E-02		2.85E-01								7.13E-02				2.08E-01	9.89E-02	2.11E-01		3.04E-01	4.21E-01	6.43E-02	1.96E+00
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-125-135	135	1.41E-02	9.98E-03			7.16E-03	1.83E-03	2.35E-02	1.79E-02		1.52E-02	2.32E-01	1.62E-01		3.76E-01								9.08E-02		3.35E-02		2.44E-01	3.71E-02	2.35E-01		8.58E-01	3.20E-01	2.22E-02	2.70E+00
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140	140	1.08E-02	9.98E-03			4.14E-03	1.16E-03	1.32E-02	1.04E-02		5.32E-02	8.44E-01	6.82E-01		2.40E+00		4.49E-01	7.45E-01		3.73E-01						4.20E-01	1.84E+00	3.96E+00	2.29E+00		7.10E-01	7.29E+00	2.67E+00	2.48E+01
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140-1	140	9.98E-03	9.15E-03			4.14E-03		1.32E-02	9.42E-03		4.99E-02	6.33E-01	5.77E-01		1.56E+00								3.57E-01				1.13E+00	1.19E+00	1.26E+00		6.79E-01	2.97E+00	7.91E-01	1.12E+01
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-140-160	160	9.15E-03	9.15E-03						3.11E-03		1.63E-01																									1.84E-01
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-110-120	120	4.99E-02	2.91E-02			1.51E-02	6.82E-03	6.50E-02	4.43E-02	4.42E-03	6.62E-02	4.85E-01	2.74E-01		5.90E-01		3.59E-02	1.75E-02					2.01E-01		1.08E-01		4.46E-01	1.68E-01	3.73E-01		3.12E+00	4.88E-01	1.09E-01	6.70E+00
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-120-140	140	5.24E-02	3.08E-02			1.98E-02	7.32E-03	7.63E-02	4.90E-02	5.57E-03	4.99E-02	5.13E-01	2.25E-01		5.64E-01	2.37E-02	2.69E-02						1.88E-01		1.14E-01		4.28E-01	1.04E-01	3.67E-01		3.12E+00	6.17E-01	6.43E-02	6.65E+00
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-140-160	160	2.41E-02	1.33E-02			9.23E-03		3.86E-02	2.73E-02		2.17E-01	2.18E-01	1.34E-01		3.44E-01		3.14E-02	2.10E-02					9.08E-02		8.37E-02		2.68E-01	1.83E-01	2.71E-01		1.79E+00	6.73E-01	1.19E-01	4.56E+00
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-115-140	140	2.66E-03				2.45E-03	1.66E-03	6.59E-03	9.42E-03		9.55E-02	6.68E-02			9.08E-02								3.05E-02				7.73E-02	2.47E-02	6.62E-02		2.26E-01	1.23E-01		8.24E-01
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-140-160	160								2.54E-03		6.73E-01																					3.82E-02	3.93E-02		7.53E-01
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-140-150	150										2.06E-02																						2.47E-02		4.53E-02
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-190-200	200										5.86E-01													3.33E-02											6.19E-01
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-83-110	110									8.55E-02																										8.55E-02
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120	120	2.25E-02	1.50E-02			6.03E-03		2.35E-02	1.60E-02		9.98E-03	2.04E-01	4.15E-02		2.14E-01								5.12E-02		3.11E-02		1.31E-01		1.02E-01		1.33E+00	1.23E-01		2.32E+00
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120-1	120	2.25E-02	1.50E-02			6.03E-03		2.45E-02	1.60E-02		1.04E-02	1.90E-01	3.80E-02		2.01E-01								4.73E-02		2.87E-02		1.19E-01		9.63E-02		1.33E+00	1.18E-01		2.26E+00
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-120-130	130	2.83E-02	1.50E-02			1.70E-02	3.33E-03	4.43E-02	3.01E-02		6.62E-02	2.39E-01	1.05E-01		2.40E-01								5.06E-02		3.95E-02		1.31E-01		1.08E-01		1.64E+00	1.12E-01		2.87E+00
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-130-140	130										6.73E-01													5.89E-02								3.20E-02	2.47E-02		7.88E-01
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-140-160	140										6.40E-01													1.15E-02											6.52E-01
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-110-120	120	1.25E-01	6.16E-02			1.32E-02		6.03E-02	3.01E-02		1.41E-01	8.44E-01	1.90E+00		1.23E+00		1.35E-01	1.71E-01	6.34E-02	9.51E-02			2.66E-01		8.97E-02	8.32E-02	8.92E-01	1.24E+00	9.63E-01		4.37E+00	2.81E+00	7.42E-01	1.63E+01
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-130-140	140	1.83E-02	9.98E-03								9.98E-02	1.41E-01	2.74E-01		1.75E-01								4.60E-02		1.97E-02		1.13E-01	5.44E-02	1.20E-01		5.77E-01	2.19E-01	3.56E-02	1.90E+00
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-140-160	160										4.45E-01				1.69E-02																	4.92E-02	3.42E-02		5.45E-01
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-120-130	130										1.30E-01																									1.30E-01
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-130-140	140	2.75E-02		5.25E-02		3.58E-02		4.80E-02	5.75E-02		1.52E-01																									3.73E-01
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-140-150	150	2.50E-02		2.05E-02		3.48E-02		3.58E-02	3.86E-02	6.72E-03	1.02E-01																									2.63E-01
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-150-160	160	5.66E-02	1.50E-02	2.69E-02		5.18E-02	2.91E-03	1.13E-01	7.16E-02		4.56E-01																									7.94E-01
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-100-120	120	1.25E-01	6.32E-02			3.67E-02		1.41E-01	6.97E-02		5.21E-02	7.74E-01	1.05E+00		9.08E-01	3.81E-02	4.49E-02						2.40E-01		1.38E-01		5.47E-01	1.58E-01	5.41E-01		4.99E+00	8.42E-01	9.89E-02	1.09E+01
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-120-140	140	1.41E-02	7.49E-03			3.48E-03		1.32E-02	6.59E-03		4.67E-01	1.27E-01	2.18E-01		2.79E-01		8.98E-02	1.14E-01	4.76E-02	6.34E-02		2.50E-02	6.23E-02			7.45E-02	1.96E-01	6.92E-01	2.77E-01	1.19E-02	4.53E-01	1.07E+00	4.60E-01	4.77E+00
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-140-160	160										4.02E-01													4.10E-02											4.43E-01
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-90-100	100										3.15E-02																									3.15E-02
Groundwater Samples	EW-1I	EW-1I-20221118	56.3	1.66E-02		1.92E-01		3.96E-03	6.16E-02	3.39E-02	1.13E-01		1.63E-02	8.44E-02			3.05E-02								4.93E-02								2.11E-02			6.23E-01
Groundwater Samples	EW-2I	EW-2I-20221118	59.4			3.58E-03		3.77E-04		4.71E-04	6.59E-04																											5.09E-03
Groundwater Samples	EW-4I	EW-4I-20221116	90.5			7.30E-02			7.65E-02	1.70E-03	5.37E-03						3.96E-02																					1.96E-01
Groundwater Samples	EW-5I	EW-5I-20221117	55.1			1.41E-02			4.66E-03																													1.87E-02
Groundwater Samples	MW-03I	MW-3I-20221118	61.9	1.83E-03		1.23E-02		7.44E-03	1.50E-02	2.45E-02	5.75E-02		5.43E-03	1.97E-02			2.20E-01								9.08E-02		8.97E-02		5.95E-02				1.09E-02			6.15E-01
Groundwater Samples	MW-08B	MW-08B-20221116	121.4			5.12E-03																																5.12E-03
Groundwater Samples	MW-08DI	MW-08DI-20221116	54.7			7.17E-02		2.83E-03	1.91E-02	4.05E-03	1.70E-02		3.69E-03																										1.18E-01
Groundwater Samples	MW-11B	MW-11B-20221115	169.7	8.32E-04		1.01E-01		7.35E-03	7.49E-04	4.71E-03	7.91E-03		2.60E-03																										1.25E-01
Groundwater Samples	MW-12B	MW-12B-20221117	129.7	5.82E-02	4.41E-02	1.92E-02		4.05E-02	1.16E-02	1.41E-01	9.42E-02		3.04E-02	4.01E-01			6.03E-01	2.56E-02	2.24E-02						2.01E-01		1.50E-01		3.57E-01	4.94E-02	3.67E-01			4.32E-01	2.82E-02	3.08E+00
Groundwater Samples	MW-12I	MW-12I-20221117	54.6	3.00E-02	3.66E-03	1.92E-02		1.88E-01	4.41E-02	9.23E-02	2.83E-01		8.68E-02	1.48E-01			3.57E-01								1.36E-01				2.20E-01		8.42E-03		1.33E-01	2.13E-02		1.77E+00
Groundwater Samples	MW-13B	MW-13B-20221115	169			4.35E-03																																4.35E-03
Groundwater Samples	MW-20B	MW-20B-20221116	105	2.91E-03	9.15E-04	8.96E-04		1.51E-03		5.18E-03	2.64E-03	9.60E-04	3.36E-03	7.74E-03	1.41E-02		1.49E-02												1.01E-02		1.02E-02		4.06E-02	1.74E-02		1.33E-01
Groundwater Samples	MW-21B	MW-21B-20221116	147	8.32E-04	6.66E-04	1.54E-02		3.58E-03	1.50E-03	6.31E-03	9.14E-03		6.19E-03	2.67E-02			6.29E-02								8.43E-03		1.08E-02		4.70E-02	1.19E-02	4.15E-02		1.95E-02	4.15E-02	6.92E-03	3.21E-01
Groundwater Samples	MW-21I	MW-21I-20221116	115			7.94E-03																																7.94E-03
Groundwater Samples	MW-22B	MW-22B-20230112	127	1.50E-02	7.99E-03	2.43E-03		5.75E-03	1.50E-03	1.51E-02	1.32E-02	1.92E-03	1.02E-01	1.69E-01	1.62E-01		2.98E-01	9.20E-03	1.23E-02						7.78E-02	1.23E-02	2.57E-02		2.20E-01	6.92E-02	2.29E-01		4.45E-01	3.76E-01	3.66E-02	2.31E+00
Groundwater Samples	MW-22I	MW-22I-3-20230117	50	4.16E-01	1.58E-01	1.28E-01		3.01E-01	1.58E-02	1.32E+00	5.93E-01	3.07E-01	1.30E+00	9.85E-01	1.41E+00		1.49E-01	2.30E-02							7.78E-02	6.66E-03	3.11E-01		7.13E-02		8.42E-03		4.14E+01			4.89E+01

Table 4-9
Molar Fractions and Effective Solubility Calculations
GCL Tie and Treating Superfund Site
Sidney, New York

				<VOCs									SVOCs>																				
Event	**Location**	**Sample**	**End Depth (ft)**	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene (Mesitylene)	Benzene	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	M, P Xylenes	o-Xylene (1,2-Dimethylbenzene)	Styrene	Toluene	1-methylnaphthalene	2-Methylnaphthalene	4-Methylphenol (P-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Biphenyl (Diphenyl)	bis(2-Ethylhexyl) Phthalate	Carbazole	Chrysene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
MW (ug/umol)				1.20E+02	1.20E+02	7.81E+01	2.08E+02	1.06E+02	1.20E+02	1.06E+02	1.06E+02	1.04E+02	9.21E+01	1.42E+02	1.42E+02	1.08E+02	1.54E+02	1.52E+02	1.78E+02	2.28E+02	2.52E+02	2.52E+02	2.76E+02	2.52E+02	1.54E+02	3.91E+02	1.67E+02	2.28E+02	1.68E+02	2.02E+02	1.66E+02	2.76E+02	1.28E+02	1.78E+02	2.02E+02
Csat (umol/L)				6.26E+02	4.01E+02	2.30E+04	2.70E+03	1.94E+03	4.02E+02	1.63E+03	1.92E+03	1.54E+03	5.69E+03	1.81E+02	1.73E+02	2.13E+05	2.25E+01	1.06E+02	7.24E+00	6.13E-02	6.42E-03	5.95E-03	9.55E-04	3.17E-03	4.85E+01	1.02E+00	1.08E+01	2.63E-02	5.95E+01	1.31E+00	1.02E+01	6.13E-02	2.47E+02	6.62E+00	6.43E-02
Mole Fraction Values																																		
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-100-120	120	9.05E-03	5.35E-03			9.08E-04	8.22E-04	4.19E-03	1.98E-03		1.66E-03	6.26E-02	1.32E-01		8.17E-02	3.73E-03	8.60E-03	1.03E-02	4.51E-03	6.07E-03	1.16E-03	2.35E-03	2.24E-02		7.54E-03	6.06E-03	5.88E-02	5.86E-02	6.10E-02	1.25E-03	2.70E-01	1.36E-01	4.15E-02
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-120-140	140	8.79E-03	4.62E-03			8.64E-04	3.24E-04	3.80E-03	1.83E-03		3.77E-03	7.13E-02	1.56E-01		9.91E-02	3.74E-03	6.24E-03	2.74E-03					2.52E-02		8.31E-03		6.03E-02	3.09E-02	6.27E-02		3.04E-01	1.25E-01	2.06E-02
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-140-160	160	5.29E-03	2.87E-03					1.69E-03	9.11E-04		9.00E-02	6.80E-02	1.26E-01		1.03E-01								2.42E-02				6.98E-02	4.10E-02	7.89E-02		1.94E-01	1.70E-01	2.36E-02
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-75-85	85										3.87E-01																					6.13E-01	
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100	100	4.44E-03	2.40E-03					1.41E-03	7.03E-04		3.30E-02	6.37E-02	1.31E-01		9.68E-02		1.05E-02	1.10E-02					2.56E-02				6.97E-02	6.59E-02	8.02E-02		1.79E-01	1.82E-01	4.22E-02
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100-1	100	4.90E-03	2.64E-03					1.55E-03			3.58E-02	6.21E-02	1.28E-01		9.92E-02		1.06E-02	9.54E-03					2.52E-02				7.00E-02	6.40E-02	8.14E-02		1.79E-01	1.85E-01	4.07E-02
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-100-108.5	108.5	3.53E-03	1.90E-03			2.91E-04	1.46E-04	1.20E-03	6.97E-04		4.82E-04	7.10E-02	1.18E-01	1.99E-02	9.16E-02	5.30E-03	8.68E-03	8.84E-03	4.00E-03	5.33E-03	1.05E-03	1.65E-03	1.88E-02		7.24E-03	5.60E-03	7.20E-02	6.65E-02	7.69E-02	1.12E-03	2.20E-01	1.62E-01	2.53E-02
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-110-120	120	7.60E-03	4.37E-03			5.73E-04	3.22E-04	2.45E-03	1.62E-03		4.50E-03	8.76E-02	1.28E-01	3.84E-02	1.11E-01	6.00E-03	8.85E-03	6.06E-03					3.59E-02		1.31E-02		8.06E-02	3.83E-02	8.16E-02		1.99E-01	1.18E-01	2.60E-02
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-120-140	140	1.20E-02	5.74E-03			2.48E-03		1.00E-02	5.20E-03		6.40E-03	7.06E-02	1.32E-01		9.76E-02								2.56E-02				6.71E-02	2.64E-02	7.55E-02		3.13E-01	1.34E-01	1.58E-02
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-140-160	160										6.85E-02		9.99E-02		1.16E-01														1.74E-01	9.49E-02		1.19E-01	2.18E-01	1.09E-01
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-80-90	90	7.48E-03	2.78E-03			1.97E-03	2.78E-04	7.68E-03	3.15E-03	2.01E-03	9.75E-03	5.44E-02	9.55E-02		5.15E-02	1.51E-02	6.57E-03						1.76E-02		1.62E-02		4.35E-02	9.09E-03	4.90E-02		5.38E-01	6.33E-02	5.06E-03
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-90-100	100	4.95E-03	2.79E-03			2.55E-04	2.07E-04	1.07E-03	6.62E-04		7.05E-04	7.61E-02	1.22E-01	9.51E-03	9.82E-02	3.55E-03	9.11E-03	9.01E-03	3.86E-03	5.15E-03	9.99E-04	2.06E-03	1.93E-02		6.47E-03	6.16E-03	7.08E-02	6.15E-02	7.49E-02	1.08E-03	2.15E-01	1.52E-01	4.28E-02
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-100-110	110				3.76E-02						4.08E-01													1.47E-01							4.07E-01		
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-110-120	120										5.33E-01				1.12E-01																2.04E-01	1.52E-01	
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-120-140	140											2.45E-02			7.85E-02		1.68E-02	3.06E-02	1.30E-02	1.78E-02			1.75E-02			1.40E-02	6.77E-02	1.72E-01	9.42E-02		3.33E-02	3.04E-01	1.16E-01
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-140-150	150										1.00E+00																						
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-150-160	160	6.55E-03	3.74E-03					3.88E-03	3.53E-03		3.05E-02	8.43E-02	7.51E-02		1.07E-01												7.68E-02		7.33E-02		4.09E-01	1.26E-01	
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-90-100	100										1.85E-01				1.84E-01												1.22E-01		1.15E-01		3.93E-01		
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-120-130	130	3.26E-03		1.42E-02							7.79E-02	8.03E-02	1.72E-01		1.23E-01												8.73E-02		9.42E-02		1.76E-01	1.72E-01	
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-130-140	140																															1.00E+00	
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-140-160	160	2.72E-03	1.36E-03			3.99E-03	5.60E-04	7.07E-03	5.53E-03		1.15E-02	1.08E-01	3.72E-02		1.62E-01								3.31E-02		2.19E-02		9.72E-02	2.85E-02	8.68E-02		2.63E-01	1.30E-01	
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-100-120	120	7.07E-03	3.07E-03			2.09E-03		8.00E-03	3.83E-03		8.42E-03	1.09E-01	1.58E-01		1.13E-01		6.43E-03	5.34E-03					2.64E-02		1.61E-02		5.93E-02	5.11E-02	6.00E-02		2.13E-01	1.18E-01	3.11E-02
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-120-130	130	5.12E-02	2.53E-02			1.54E-02	2.21E-03	6.17E-02	2.94E-02		9.31E-02	4.77E-02	8.22E-02		4.95E-02								1.26E-02				2.73E-02		1.97E-02		4.62E-01	2.01E-02	
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-130-140	140	7.29E-03									9.11E-02	6.41E-02	7.83E-02		9.46E-02												5.86E-02	3.34E-02	6.15E-02		3.99E-01	1.13E-01	
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-90-100	100	7.30E-03	3.59E-03								6.15E-02	5.61E-02	1.07E-01		8.80E-02								1.86E-02	2.45E-02			5.22E-02	2.84E-02	5.28E-02		3.80E-01	1.03E-01	1.74E-02
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-100-120	120										7.37E-01	2.25E-02	3.88E-02		2.83E-02													2.47E-02			1.00E-01	4.82E-02	
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-120-140	140										7.95E-01																						2.05E-01	
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-140-160	160										8.31E-01																						1.69E-01	
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90	90				2.29E-02					2.52E-02	7.11E-01													2.41E-01									
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90-1	90				3.75E-02					4.38E-02	9.19E-01																						
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-90-100	100										8.63E-01																					1.37E-01	
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-100-120	120	4.85E-03	3.07E-03					1.24E-03	7.32E-04		6.96E-03	7.51E-02	6.83E-02		1.51E-01	4.85E-03	1.09E-02	7.23E-03	2.46E-03	3.62E-03			3.78E-02		7.90E-03	4.51E-03	9.12E-02	5.57E-02	9.23E-02		1.50E-01	1.85E-01	3.46E-02
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-120-140	140	8.12E-03	4.47E-03			2.44E-03	4.97E-04	9.19E-03	5.06E-03		5.62E-03	7.28E-02	7.28E-02		1.28E-01	4.06E-03	7.26E-03						3.10E-02		1.02E-02		7.46E-02	2.76E-02	8.03E-02		2.95E-01	1.45E-01	1.58E-02
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-90-100	100	5.62E-03	3.39E-03								4.89E-02	8.41E-02	7.91E-02		1.51E-01								3.79E-02				1.00E-01	5.56E-02	1.02E-01		1.54E-01	1.46E-01	3.34E-02
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-105-115	115	7.03E-03	4.68E-03			2.12E-03	1.17E-03	1.06E-02	7.95E-03		7.64E-03	8.58E-02	2.01E-02		8.21E-02								2.34E-02		1.26E-02		6.14E-02		4.80E-02		5.49E-01	7.63E-02	
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-115-125	125	2.89E-03	2.21E-03		1.67E-03	2.21E-03		5.77E-03	5.77E-03		1.50E-02	7.18E-02	4.31E-02		1.46E-01								3.64E-02				1.06E-01	5.05E-02	1.08E-01		1.55E-01	2.15E-01	3.28E-02
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-125-135	135	5.24E-03	3.70E-03			2.65E-03	6.78E-04	8.72E-03	6.63E-03		5.63E-03	8.60E-02	5.99E-02		1.39E-01								3.36E-02		1.24E-02		9.03E-02	1.37E-02	8.69E-02		3.18E-01	1.18E-01	8.24E-03
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140	140	4.37E-04	4.03E-04			1.67E-04	4.70E-05	5.32E-04	4.18E-04		2.15E-03	3.41E-02	2.75E-02		9.69E-02		1.81E-02	3.01E-02		1.50E-02						1.70E-02	7.44E-02	1.60E-01	9.23E-02		2.87E-02	2.94E-01	1.08E-01
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140-1	140	8.88E-04	8.14E-04			3.69E-04		1.17E-03	8.38E-04		4.44E-03	5.63E-02	5.13E-02		1.38E-01								3.17E-02				1.00E-01	1.06E-01	1.12E-01		6.04E-02	2.65E-01	7.04E-02
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-140-160	160	4.97E-02	4.97E-02						1.69E-02		8.84E-01																						
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-110-120	120	7.45E-03	4.35E-03			2.25E-03	1.02E-03	9.70E-03	6.61E-03	6.59E-04	9.88E-03	7.24E-02	4.09E-02		8.81E-02		5.36E-03	2.62E-03					3.00E-02		1.61E-02		6.66E-02	2.51E-02	5.57E-02		4.66E-01	7.29E-02	1.62E-02
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-120-140	140	7.89E-03	4.63E-03			2.98E-03	1.10E-03	1.15E-02	7.37E-03	8.38E-04	7.51E-03	7.72E-02	3.39E-02		8.49E-02	3.56E-03	4.05E-03						2.83E-02		1.71E-02		6.44E-02	1.56E-02	5.52E-02		4.70E-01	9.28E-02	9.67E-03
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-140-160	160	5.29E-03	2.92E-03			2.02E-03		8.47E-03	5.99E-03		4.76E-02	4.78E-02	2.93E-02		7.54E-02		6.89E-03	4.61E-03					1.99E-02		1.84E-02		5.87E-02	4.01E-02	5.94E-02		3.94E-01	1.48E-01	2.60E-02
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-115-140	140	3.23E-03				2.97E-03	2.02E-03	8.00E-03	1.14E-02		1.16E-01	8.11E-02			1.10E-01								3.70E-02				9.38E-02	3.00E-02	8.03E-02		2.75E-01	1.50E-01	
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-140-160	160								3.38E-03		8.94E-01																					5.08E-02	5.22E-02	
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-140-150	150										4.55E-01																						5.45E-01	
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-190-200	200										9.46E-01													5.37E-02									
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-83-110	110									1.00E+00																							
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120	120	9.69E-03	6.46E-03			2.60E-03		1.02E-02	6.91E-03		4.31E-03	8.80E-02	1.79E-02		9.23E-02								2.21E-02		1.34E-02		5.64E-02		4.41E-02		5.72E-01	5.33E-02	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120-1	120	9.95E-03	6.63E-03			2.67E-03		1.08E-02	7.09E-03		4.61E-03	8.41E-02	1.68E-02		8.90E-02								2.10E-02		1.27E-02		5.26E-02		4.26E-02		5.87E-01	5.22E-02	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-120-130	130	9.86E-03	5.22E-03			5.91E-03	1.16E-03	1.54E-02	1.05E-02		2.31E-02	8.34E-02	3.68E-02		8.36E-02								1.76E-02		1.38E-02		4.56E-02		3.78E-02		5.71E-01	3.91E-02	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-130-140	130										8.53E-01													7.47E-02							4.06E-02	3.13E-02	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-140-160	140										9.82E-01													1.77E-02									
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-110-120	120	7.65E-03	3.77E-03			8.08E-04		3.69E-03	1.85E-03		8.65E-03	5.17E-02	1.16E-01		7.55E-02		8.25E-03	1.05E-02	3.89E-03	5.83E-03			1.63E-02		5.50E-03	5.10E-03	5.47E-02	7.58E-02	5.90E-02		2.68E-01	1.72E-01	4.55E-02
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-130-140	140	9.62E-03	5.25E-03								5.25E-02	7.39E-02	1.44E-01		9.20E-02								2.42E-02		1.04E-02		5.93E-02	2.86E-02	6.32E-02		3.03E-01	1.15E-01	1.87E-02
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-140-160	160										8.16E-01				3.09E-02																9.02E-02	6.28E-02	
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-120-130	130										1.00E+00																						
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-130-140	140	7.36E-02		1.41E-01		9.59E-02		1.29E-01	1.54E-01		4.07E-01																						
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-140-150	150	9.47E-02		7.78E-02		1.32E-01		1.36E-01	1.47E-01	2.55E-02	3.87E-01																						
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-150-160	160	7.13E-02	1.89E-02	3.39E-02		6.53E-02	3.67E-03	1.42E-01	9.02E-02		5.74E-01																						
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-100-120	120	1.15E-02	5.82E-03			3.38E-03		1.30E-02	6.41E-03		4.79E-03	7.12E-02	9.71E-02		8.36E-02	3.51E-03	4.13E-03						2.21E-02		1.27E-02		5.03E-02	1.46E-02	4.98E-02		4.60E-01	7.75E-02	9.10E-03
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-120-140	140	2.97E-03	1.57E-03			7.31E-04		2.77E-03	1.38E-03		9.79E-02	2.66E-02	4.57E-02		5.85E-02		1.88E-02	2.39E-02	9.98E-03	1.33E-02		5.24E-03	1.31E-02			1.56E-02	4.12E-02	1.45E-01	5.81E-02	2.51E-03	9.49E-02	2.24E-01	9.65E-02
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-140-160	160										9.07E-01													9.26E-02									
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-90-100	100										1.00E+00																						
Groundwater Samples	EW-1I	EW-1I-20221118	56.3	2.67E-02		3.08E-01		6.35E-03	9.89E-02	5.45E-02	1.82E-01		2.61E-02	1.36E-01			4.90E-02								7.92E-02								3.38E-02		
Groundwater Samples	EW-2I	EW-2I-20221118	59.4			7.04E-01		7.40E-02		9.25E-02	1.29E-01																								
Groundwater Samples	EW-4I	EW-4I-20221116	90.5			3.72E-01			3.90E-01	8.64E-03	2.74E-02						2.02E-01																		
Groundwater Samples	EW-5I	EW-5I-20221117	55.1			7.51E-01			2.49E-01																										
Groundwater Samples	MW-03I	MW-3I-20221118	61.9	2.98E-03		2.00E-02		1.21E-02	2.44E-02	3.98E-02	9.34E-02		8.82E-03	3.20E-02			3.59E-01								1.48E-01		1.46E-01		9.67E-02				1.78E-02		
Groundwater Samples	MW-08B	MW-08B-20221116	121.4			1.00E+00																													
Groundwater Samples	MW-08DI	MW-08DI-20221116	54.7			6.06E-01		2.39E-02	1.62E-01	3.42E-02	1.43E-01		3.12E-02																							
Groundwater Samples	MW-11B	MW-11B-20221115	169.7	6.64E-03		8.07E-01		5.86E-02	5.98E-03	3.76E-02	6.31E-02		2.08E-02																							
Groundwater Samples	MW-12B	MW-12B-20221117	129.7	1.89E-02	1.43E-02	6.24E-03		1.32E-02	3.79E-03	4.59E-02	3.06E-02		9.88E-03	1.30E-01			1.96E-01	8.33E-03	7.30E-03						6.54E-02		4.86E-02		1.16E-01	1.61E-02	1.19E-01			1.40E-01	9.16E-03
Groundwater Samples	MW-12I	MW-12I-20221117	54.6	1.69E-02	2.07E-03	1.09E-02		1.06E-01	2.49E-02	5.22E-02	1.60E-01		4.91E-02	8.34E-02			2.02E-01								7.69E-02				1.24E-01		4.76E-03		7.49E-02	1.20E-02	
Groundwater Samples	MW-13B	MW-13B-20221115	169			1.00E+00																													
Groundwater Samples	MW-20B	MW-20B-20221116	105	2.18E-02	6.86E-03	6.72E-03		1.13E-02		3.88E-02	1.98E-02	7.20E-03	2.52E-02	5.80E-02	1.05E-01		1.12E-01												7.58E-02		7.67E-02		3.04E-01	1.30E-01	
Groundwater Samples	MW-21B	MW-21B-20221116	147	2.59E-03	2.08E-03	4.79E-02		1.12E-02	4.67E-03	1.97E-02	2.85E-02		1.93E-02	8.33E-02			1.96E-01								2.63E-02		3.36E-02		1.46E-01	3.70E-02	1.29E-01		6.08E-02	1.29E-01	2.16E-02
Groundwater Samples	MW-21I	MW-21I-20221116	115			1.00E+00																													
Groundwater Samples	MW-22B	MW-22B-20230112	127	6.49E-03	3.46E-03	1.05E-03		2.49E-03	6.49E-04	6.54E-03	5.72E-03	8.33E-04	4.42E-02	7.32E-02	7.01E-02		1.29E-01	3.99E-03	5.35E-03						3.37E-02	5.33E-03	1.12E-02		9.54E-02	3.00E-02	9.91E-02		1.93E-01	1.63E-01	1.59E-02
Groundwater Samples	MW-22I	MW-22I-3-20230117	50	8.50E-03	3.23E-03	2.62E-03		6.16E-03	3.23E-04	2.69E-02	1.21E-02	6.28E-03	2.66E-02	2.01E-02	2.87E-02		3.05E-03	4.70E-04							1.59E-03	1.36E-04	6.36E-03		1.46E-03		1.72E-04		8.45E-01		

Table 4-9
Molar Fractions and Effective Solubility Calculations
GCL Tie and Treating Superfund Site
Sidney, New York

				<VOCs									SVOCs>																				
Event	**Location**	**Sample**	**End Depth (ft)**	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene (Mesitylene)	Benzene	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	M, P Xylenes	o-Xylene (1,2-Dimethylbenzene)	Styrene	Toluene	1-methylnaphthalene	2-Methylnaphthalene	4-Methylphenol (P-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Biphenyl (Diphenyl)	bis(2-Ethylhexyl) Phthalate	Carbazole	Chrysene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
MW (ug/umol)				1.20E+02	1.20E+02	7.81E+01	2.08E+02	1.06E+02	1.20E+02	1.06E+02	1.06E+02	1.04E+02	9.21E+01	1.42E+02	1.42E+02	1.08E+02	1.54E+02	1.52E+02	1.78E+02	2.28E+02	2.52E+02	2.52E+02	2.76E+02	2.52E+02	1.54E+02	3.91E+02	1.67E+02	2.28E+02	1.68E+02	2.02E+02	1.66E+02	2.76E+02	1.28E+02	1.78E+02	2.02E+02
Csat (umol/L)				6.26E+02	4.01E+02	2.30E+04	2.70E+03	1.94E+03	4.02E+02	1.63E+03	1.92E+03	1.54E+03	5.69E+03	1.81E+02	1.73E+02	2.13E+05	2.25E+01	1.06E+02	7.24E+00	6.13E-02	6.42E-03	5.95E-03	9.55E-04	3.17E-03	4.85E+01	1.02E+00	1.08E+01	2.63E-02	5.95E+01	1.31E+00	1.02E+01	6.13E-02	2.47E+02	6.62E+00	6.43E-02
Effective Solubility in umol/L																																		
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-100-120	120	5.66E+00	2.14E+00			1.76E+00	3.31E-01	6.83E+00	3.80E+00		9.46E+00	1.13E+01	2.28E+01		1.84E+00	3.96E-01	6.22E-02	6.30E-04	2.89E-05	3.61E-05	1.11E-06	7.45E-06	1.09E+00		8.11E-02	1.59E-04	3.50E+00	7.68E-02	6.22E-01	7.67E-05	6.67E+01	8.99E-01	2.67E-03
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-120-140	140	5.50E+00	1.85E+00			1.68E+00	1.30E-01	6.19E+00	3.52E+00		2.15E+01	1.29E+01	2.71E+01		2.23E+00	3.97E-01	4.52E-02	1.68E-04					1.22E+00		8.95E-02		3.59E+00	4.05E-02	6.40E-01		7.50E+01	8.26E-01	1.33E-03
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-140-160	160	3.31E+00	1.15E+00					2.76E+00	1.75E+00		5.12E+02	1.23E+01	2.18E+01		2.32E+00								1.17E+00				4.15E+00	5.37E-02	8.05E-01		4.79E+01	1.13E+00	1.52E-03
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-75-85	85										2.20E+03																					4.06E+00	
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100	100	2.78E+00	9.60E-01					2.29E+00	1.35E+00		1.88E+02	1.15E+01	2.27E+01		2.18E+00		7.58E-02	6.73E-04					1.24E+00				4.15E+00	8.63E-02	8.18E-01		4.42E+01	1.21E+00	2.71E-03
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100-1	100	3.07E+00	1.06E+00					2.53E+00			2.04E+02	1.12E+01	2.22E+01		2.23E+00		7.65E-02	5.85E-04					1.22E+00				4.16E+00	8.39E-02	8.31E-01		4.42E+01	1.22E+00	2.62E-03
Packer Groundwater Samples	SB-BR-02	GW-SB-02-100-108.5	108.5	2.21E+00	7.63E-01			5.65E-01	5.85E-02	1.96E+00	1.34E+00		2.74E+00	1.28E+01	2.05E+01	4.24E+03	2.06E+00	5.62E-01	6.28E-02	5.42E-04	2.57E-05	3.17E-05	1.00E-06	5.24E-06	9.10E-01		7.80E-02	1.47E-04	4.28E+00	8.71E-02	7.84E-01	6.86E-05	5.45E+01	1.07E+00	1.63E-03
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-110-120	120	4.76E+00	1.75E+00			1.11E+00	1.30E-01	3.99E+00	3.10E+00		2.56E+01	1.58E+01	2.22E+01	8.18E+03	2.50E+00	6.36E-01	6.41E-02	3.71E-04					1.74E+00		1.41E-01		4.80E+00	5.02E-02	8.32E-01		4.91E+01	7.81E-01	1.67E-03
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-120-140	140	7.52E+00	2.30E+00			4.82E+00		1.64E+01	9.98E+00		3.64E+01	1.28E+01	2.29E+01		2.20E+00								1.24E+00				3.99E+00	3.45E-02	7.70E-01		7.74E+01	8.85E-01	1.02E-03
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-140-160	160										3.90E+02		1.73E+01		2.61E+00														2.28E-01	9.68E-01		2.94E+01	1.45E+00	7.02E-03
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-80-90	90	4.68E+00	1.12E+00			3.82E+00	1.12E-01	1.25E+01	6.05E+00	3.09E+00	5.55E+01	9.84E+00	1.65E+01		1.16E+00	1.60E+00	4.75E-02						8.54E-01		1.75E-01		2.59E+00	1.19E-02	5.00E-01		1.33E+02	4.19E-01	3.26E-04
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-90-100	100	3.10E+00	1.12E+00			4.94E-01	8.32E-02	1.74E+00	1.27E+00		4.01E+00	1.38E+01	2.11E+01	2.02E+03	2.21E+00	3.77E-01	6.59E-02	5.52E-04	2.48E-05	3.06E-05	9.54E-07	6.53E-06	9.36E-01		6.97E-02	1.62E-04	4.21E+00	8.06E-02	7.64E-01	6.60E-05	5.32E+01	1.00E+00	2.75E-03
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-100-110	110										2.32E+03													1.50E-01							1.01E+02		
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-110-120	120										3.03E+03				2.51E+00																	5.03E+01	1.00E+00	
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-120-140	140											4.44E+00			1.77E+00		1.21E-01	1.87E-03	8.33E-05	1.06E-04			8.51E-01			3.69E-04	4.03E+00	2.26E-01	9.61E-01		8.23E+00	2.01E+00	7.47E-03
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-140-150	150										5.69E+03																							
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-150-160	160	4.10E+00	1.50E+00					6.33E+00	6.78E+00		1.74E+02	1.53E+01	1.30E+01		2.41E+00												4.57E+00		7.47E-01		1.01E+02	8.35E-01	
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-90-100	100										1.05E+03				4.14E+00												7.28E+00		1.18E+00		9.71E+01		
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-120-130	130	2.04E+00		3.27E+02							4.43E+02	1.45E+01	2.98E+01		2.76E+00												5.20E+00		9.61E-01		4.34E+01	1.14E+00	
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-130-140	140																															6.62E+00	
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-140-160	160	1.70E+00	5.46E-01			7.73E+00	2.25E-01	1.15E+01	1.06E+01		6.53E+01	1.96E+01	6.44E+00		3.65E+00								1.60E+00		2.35E-01		5.78E+00	3.74E-02	8.85E-01		6.49E+01	8.57E-01	
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-100-120	120	4.43E+00	1.23E+00			4.05E+00		1.30E+01	7.35E+00		4.79E+01	1.98E+01	2.74E+01		2.53E+00		4.65E-02	3.27E-04					1.28E+00		1.74E-01		3.53E+00	6.70E-02	6.12E-01		5.27E+01	7.82E-01	2.00E-03
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-120-130	130	3.21E+01	1.01E+01			2.99E+01	8.87E-01	1.01E+02	5.64E+01		5.30E+02	8.63E+00	1.42E+01		1.11E+00								6.13E-01				1.63E+00		2.01E-01		1.14E+02	1.33E-01	
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-130-140	140	4.56E+00									5.18E+02	1.16E+01	1.35E+01		2.13E+00												3.48E+00	4.37E-02	6.27E-01		9.85E+01	7.45E-01	
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-90-100	100	4.57E+00	1.44E+00								3.50E+02	1.02E+01	1.84E+01		1.98E+00								9.04E-01	2.50E-02			3.11E+00	3.72E-02	5.39E-01		9.38E+01	6.82E-01	1.12E-03
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-100-120	120										4.20E+03	4.08E+00	6.71E+00		6.36E-01													3.24E-02			2.47E+01	3.19E-01	
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-120-140	140										4.52E+03																					1.36E+00	
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-140-160	160										4.73E+03																					1.12E+00	
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90	90									3.87E+01	4.05E+03													2.46E-01									
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90-1	90									6.74E+01	5.23E+03																						
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-90-100	100										4.91E+03																					9.08E-01	
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-100-120	120	3.04E+00	1.23E+00					2.03E+00	1.41E+00		3.96E+01	1.36E+01	1.18E+01		3.40E+00	5.14E-01	7.89E-02	4.43E-04	1.58E-05	2.15E-05			1.83E+00		8.51E-02	1.19E-04	5.43E+00	7.30E-02	9.42E-01		3.71E+01	1.23E+00	2.22E-03
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-120-140	140	5.08E+00	1.79E+00			4.73E+00	2.00E-01	1.50E+01	9.72E+00		3.20E+01	1.32E+01	1.26E+01		2.88E+00	4.30E-01	5.26E-02						1.50E+00		1.10E-01		4.44E+00	3.61E-02	8.19E-01		7.29E+01	9.61E-01	1.01E-03
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-90-100	100	3.52E+00	1.36E+00								2.78E+02	1.52E+01	1.37E+01		3.39E+00								1.84E+00				5.97E+00	7.29E-02	1.04E+00		3.80E+01	9.66E-01	2.15E-03
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-105-115	115	4.40E+00	1.88E+00			4.11E+00	4.71E-01	1.73E+01	1.53E+01		4.35E+01	1.55E+01	3.48E+00		1.85E+00								1.14E+00		1.36E-01		3.65E+00		4.89E-01		1.36E+02	5.05E-01	
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-115-125	125	1.81E+00	8.86E-01			4.29E+00		9.41E+00	1.11E+01		8.52E+01	1.30E+01	7.46E+00		3.28E+00								1.72E+00				6.32E+00	6.62E-02	1.10E+00		3.84E+01	1.42E+00	2.11E-03
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-125-135	135	3.28E+00	1.48E+00			5.14E+00	2.73E-01	1.42E+01	1.27E+01		3.20E+01	1.56E+01	1.04E+01		3.13E+00								1.63E+00		1.34E-01		5.37E+00	1.80E-02	8.86E-01		7.85E+01	7.84E-01	5.30E-04
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140	140	2.73E-01	1.62E-01			3.25E-01	1.89E-02	8.68E-01	8.03E-01		1.22E+01	6.17E+00	4.76E+00		2.18E+00		1.31E-01	1.84E-03		8.94E-05						4.46E-04	4.43E+00	2.09E-01	9.41E-01		7.08E+00	1.95E+00	6.93E-03
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-140-160	160	3.11E+01	1.99E+01						3.24E+01		5.03E+03																						
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-110-120	120	4.67E+00	1.74E+00			4.37E+00	4.10E-01	1.58E+01	1.27E+01	1.02E+00	5.62E+01	1.31E+01	7.08E+00		1.98E+00		3.88E-02	1.60E-04					1.46E+00		1.73E-01		3.96E+00	3.29E-02	5.68E-01		1.15E+02	4.82E-01	1.04E-03
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-120-140	140	4.94E+00	1.86E+00			5.77E+00	4.43E-01	1.87E+01	1.41E+01	1.29E+00	4.27E+01	1.40E+01	5.86E+00		1.91E+00	3.77E-01	2.93E-02						1.37E+00		1.84E-01		3.83E+00	2.05E-02	5.63E-01		1.16E+02	6.15E-01	6.22E-04
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-140-160	160	3.31E+00	1.17E+00			3.93E+00		1.38E+01	1.15E+01		2.71E+02	8.65E+00	5.07E+00		1.70E+00		4.99E-02	2.83E-04					9.66E-01		1.98E-01		3.49E+00	5.26E-02	6.06E-01		9.72E+01	9.77E-01	1.67E-03
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-115-140	140	2.02E+00				5.76E+00	8.12E-01	1.30E+01	2.19E+01		6.59E+02	1.47E+01			2.48E+00								1.79E+00				5.58E+00	3.93E-02	8.19E-01		6.78E+01	9.91E-01	
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-140-160	160								6.48E+00		5.09E+03																					1.25E+01	3.45E-01	
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-140-150	150										2.59E+03																						3.61E+00	
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-190-200	200										5.38E+03													5.48E-02									
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-83-110	110									1.54E+03																							
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120	120	6.07E+00	2.59E+00			5.05E+00		1.66E+01	1.33E+01		2.45E+01	1.59E+01	3.10E+00		2.08E+00								1.07E+00		1.44E-01		3.36E+00		4.50E-01		1.41E+02	3.53E-01	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120-1	120	6.23E+00	2.66E+00			5.18E+00		1.77E+01	1.36E+01		2.62E+01	1.52E+01	2.91E+00		2.00E+00								1.02E+00		1.37E-01		3.13E+00		4.35E-01		1.45E+02	3.45E-01	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-120-130	130	6.17E+00	2.09E+00			1.15E+01	4.66E-01	2.52E+01	2.02E+01		1.31E+02	1.51E+01	6.36E+00		1.88E+00								8.55E-01		1.48E-01		2.71E+00		3.85E-01		1.41E+02	2.59E-01	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-130-140	130				#VALUE!						4.86E+03													7.62E-02								1.00E+01	2.07E-01	
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-140-160	140				#VALUE!						5.59E+03													1.80E-02									
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-110-120	120	4.79E+00	1.51E+00			1.57E+00		6.02E+00	3.55E+00		4.92E+01	9.36E+00	2.01E+01		1.70E+00		5.98E-02	6.42E-04	2.50E-05	3.47E-05			7.90E-01		5.92E-02	1.34E-04	3.25E+00	9.92E-02	6.02E-01		6.62E+01	1.14E+00	2.92E-03
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-130-140	140	6.02E+00	2.10E+00								2.98E+02	1.34E+01	2.49E+01		2.07E+00								1.17E+00		1.12E-01		3.53E+00	3.74E-02	6.45E-01		7.49E+01	7.61E-01	1.20E-03
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-140-160	160										4.64E+03				6.96E-01																	2.23E+01	4.16E-01	
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-120-130	130										5.69E+03																							
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-130-140	140	4.61E+01		3.24E+03		1.86E+02		2.10E+02	2.96E+02		2.32E+03																							
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-140-150	150	5.93E+01		1.79E+03		2.57E+02		2.21E+02	2.81E+02	3.93E+01	2.20E+03																							
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-150-160	160	4.46E+01	7.57E+00	7.79E+02		1.27E+02	1.48E+00	2.32E+02	1.73E+02		3.27E+03																							
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-100-120	120	7.19E+00	2.33E+00			6.56E+00		2.12E+01	1.23E+01		2.73E+01	1.29E+01	1.68E+01		1.88E+00	3.72E-01	2.99E-02						1.07E+00		1.36E-01		3.00E+00	1.91E-02	5.08E-01		1.14E+02	5.13E-01	5.85E-04
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-120-140	140	1.86E+00	6.30E-01			1.42E+00		4.51E+00	2.66E+00		5.57E+02	4.81E+00	7.91E+00		1.32E+00		1.36E-01	1.46E-03	6.41E-05	7.91E-05		1.66E-05	6.33E-01			4.11E-04	2.45E+00	1.90E-01	5.92E-01	1.54E-04	2.35E+01	1.48E+00	6.20E-03
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-140-160	160										5.16E+03													9.44E-02									
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-90-100	100										5.69E+03																							
Groundwater Samples	EW-1I	EW-1I-20221118	56.3	1.67E+01		7.09E+03		1.23E+01	3.98E+01	8.88E+01	3.49E+02		1.49E+02	2.45E+01			1.10E+00								3.84E+00								8.36E+00		
Groundwater Samples	EW-2I	EW-2I-20221118	59.4			1.62E+04		1.44E+02		1.51E+02	2.49E+02																								
Groundwater Samples	EW-4I	EW-4I-20221116	90.5			8.56E+03			1.57E+02	1.41E+01	5.26E+01						4.54E+00																		
Groundwater Samples	EW-5I	EW-5I-20221117	55.1			1.73E+04			9.99E+01																										
Groundwater Samples	MW-03I	MW-3I-20221118	61.9	1.86E+00		4.60E+02		2.35E+01	9.79E+00	6.49E+01	1.79E+02		5.02E+01	5.80E+00			8.07E+00								7.16E+00		1.57E+00		5.75E+00				4.39E+00		
Groundwater Samples	MW-08B	MW-08B-20221116	121.4			2.30E+04																													
Groundwater Samples	MW-08DI	MW-08DI-20221116	54.7			1.39E+04		4.63E+01	6.50E+01	5.58E+01	2.75E+02		1.77E+02																							
Groundwater Samples	MW-11B	MW-11B-20221115	169.7	4.16E+00		1.86E+04		1.14E+02	2.40E+00	6.13E+01	1.21E+02		1.18E+02																							
Groundwater Samples	MW-12B	MW-12B-20221117	129.7	1.19E+01	5.75E+00	1.44E+02		2.55E+01	1.52E+00	7.49E+01	5.88E+01		5.62E+01	2.36E+01			4.41E+00	8.83E-01	5.28E-02						3.17E+00		5.23E-01		6.90E+00	2.11E-02	1.22E+00			9.30E-01	5.89E-04
Groundwater Samples	MW-12I	MW-12I-20221117	54.6	1.06E+01	8.29E-01	2.50E+02		2.06E+02	1.00E+01	8.50E+01	3.07E+02		2.79E+02	1.51E+01			4.53E+00								3.73E+00				7.40E+00		4.85E-02		1.85E+01	7.97E-02	
Groundwater Samples	MW-13B	MW-13B-20221115	169			2.30E+04																													
Groundwater Samples	MW-20B	MW-20B-20221116	105	1.37E+01	2.75E+00	1.55E+02		2.19E+01		6.33E+01	3.80E+01	1.11E+01	1.44E+02	1.05E+01	1.82E+01		2.52E+00												4.51E+00		7.82E-01		7.51E+01	8.63E-01	
Groundwater Samples	MW-21B	MW-21B-20221116	147	1.62E+00	8.32E-01	1.10E+03		2.17E+01	1.88E+00	3.21E+01	5.47E+01		1.10E+02	1.51E+01			4.41E+00								1.28E+00		3.61E-01		8.71E+00	4.85E-02	1.32E+00		1.50E+01	8.57E-01	1.39E-03
Groundwater Samples	MW-21I	MW-21I-20221116	115			2.30E+04																													
Groundwater Samples	MW-22B	MW-22B-20230112	127	4.07E+00	1.39E+00	2.43E+01		4.83E+00	2.61E-01	1.07E+01	1.10E+01	1.28E+00	2.52E+02	1.32E+01	1.21E+01		2.91E+00	4.23E-01	3.88E-02						1.64E+00	5.44E-03	1.20E-01		5.68E+00	3.93E-02	1.01E+00		4.76E+01	1.08E+00	1.02E-03
Groundwater Samples	MW-22I	MW-22I-3-20230117	50	5.32E+00	1.30E+00	6.02E+01		1.19E+01	1.30E-01	4.39E+01	2.33E+01	9.67E+00	1.51E+02	3.64E+00	4.97E+00		6.86E-02	4.98E-02							7.71E-02	1.39E-04	6.84E-02		8.67E-02		1.76E-03		2.09E+02		

Table 4-9
Molar Fractions and Effective Solubility Calculations
GCL Tie and Treating Superfund Site
Sidney, New York

Event	Location	Sample	End Depth (ft)	<VOCs										SVOCs>																								
				1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene (Mesitylene)	Benzene	Dibromochloromethane	Ethylbenzene	Isopropylbenzene	M, P Xylenes	o-Xylene (1,2-Dimethylbenzene)	Styrene	Toluene	1-methylnaphthalene	2-Methylnaphthalene	4-Methylphenol (P-Cresol)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Biphenyl (Diphenyl)	bis(2-Ethylhexyl) Phthalate	Carbazole	Chrysene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene		
MW (ug/umol)				1.20E+02	1.20E+02	7.81E+01	2.08E+02	1.06E+02	1.20E+02	1.06E+02	1.06E+02	1.04E+02	9.21E+01	1.42E+02	1.42E+02	1.08E+02	1.54E+02	1.52E+02	1.78E+02	2.28E+02	2.52E+02	2.52E+02	2.76E+02	2.52E+02	1.54E+02	3.91E+02	1.67E+02	2.28E+02	1.68E+02	2.02E+02	1.66E+02	2.76E+02	1.28E+02	1.78E+02	2.02E+02		
Csat (umol/L)				6.26E+02	4.01E+02	2.30E+04	2.70E+03	1.94E+03	4.02E+02	1.63E+03	1.92E+03	1.54E+03	5.69E+03	1.81E+02	1.73E+02	2.13E+05	2.25E+01	1.06E+02	7.24E+00	6.13E-02	6.42E-03	5.95E-03	9.55E-04	3.17E-03	4.85E+01	1.02E+00	1.08E+01	2.63E-02	5.95E+01	1.31E+00	1.02E+01	6.13E-02	2.47E+02	6.62E+00	6.43E-02		
Percent of Effective Solubility																																						
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-100-120	120	6.46E+00	1.01E+01			2.09E+00	1.01E+01	2.48E+00	2.11E+00		7.11E-01	2.24E+01	2.34E+01		1.80E+02	3.82E+01	5.59E+02	6.60E+04	6.30E+05	6.81E+05	4.24E+06	1.28E+06	8.34E+01		3.76E+02	1.54E+05	6.80E+01	3.09E+03	3.97E+02	6.60E+04	1.64E+01	6.11E+02	6.29E+04		
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-120-140	140	1.15E+00	1.79E+00			3.71E-01	1.79E+00	4.41E-01	3.75E-01		1.26E-01	3.98E+00	4.16E+00		3.20E+01	6.79E+00	9.94E+01	1.17E+04					1.48E+01		6.68E+01		1.21E+01	5.49E+02	7.05E+01		2.91E+00	1.09E+02	1.12E+04		
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-140-160	160	2.31E-01	3.61E-01					8.88E-02	7.54E-02		2.54E-02	8.00E-01	8.37E-01		6.43E+00								2.98E+00				2.43E+00	1.11E+02	1.42E+01		5.86E-01	2.19E+01	2.25E+03		
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-75-85	85										7.40E-04																					6.36E-01			
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100	100	3.00E-01	4.68E-01					1.15E-01	9.77E-02		3.30E-02	1.04E+00	1.08E+00		8.34E+00		2.59E+01	3.06E+03					3.87E+00				3.15E+00	1.43E+02	1.84E+01		7.59E-01	2.83E+01	2.92E+03		
Packer Groundwater Samples	SB-BR-01	GW-SB-BR-01-85-100-1	100	2.71E-01	4.24E-01					1.04E-01			2.99E-02	9.39E-01	9.82E-01		7.55E+00		2.35E+01	2.77E+03					3.50E+00				2.86E+00	1.30E+02	1.67E+01		6.88E-01	2.57E+01	2.64E+03		
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-100-108.5	108.5	2.37E+00	3.71E+00			7.66E-01	3.70E+00	9.12E-01	7.74E-01		2.61E-01	8.21E+00	8.59E+00	6.98E-03	6.61E+01	1.40E+01	2.05E+02	2.42E+04	2.32E+05	2.50E+05	1.56E+06	4.69E+05	3.06E+01		1.38E+02	5.65E+04	2.50E+01	1.13E+03	1.46E+02	2.42E+04	6.02E+00	2.25E+02	2.31E+04		
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-110-120	120	5.77E-01	9.01E-01			1.86E-01	8.99E-01	2.22E-01	1.88E-01		6.35E-02	2.00E+00	2.09E+00	1.70E-03	1.61E+01	3.41E+00	4.99E+01	5.90E+03					7.45E+00		3.36E+01		6.07E+00	2.76E+02	3.54E+01		1.46E+00	5.46E+01	5.62E+03		
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-120-140	140	2.55E-01	3.97E-01			8.22E-02		9.78E-02	8.30E-02		2.80E-02	8.81E-01	9.21E-01		7.08E+00								3.29E+00				2.68E+00	1.22E+02	1.56E+01		6.45E-01	2.41E+01	2.48E+03		
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-140-160	160				0.00E+00						3.34E-03		1.10E-01		8.45E-01													1.45E+01	1.86E+00		7.70E-02	2.87E+00	2.96E+02		
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-80-90	90	7.64E-01	1.19E+00		0.00E+00	2.47E-01	1.19E+00	2.94E-01	2.49E-01	3.11E-01	8.41E-02	2.64E+00	2.77E+00		2.13E+01	4.51E+00	6.61E+01						9.87E+00		4.45E+01		8.04E+00	3.65E+02	4.69E+01		1.94E+00	7.23E+01	7.44E+03		
Packer Groundwater Samples	SB-BR-02	GW-SB-BR-02-90-100	100	2.95E+00	4.61E+00		0.00E+00	9.53E-01	4.60E+00	1.13E+00	9.63E-01		3.25E-01	1.02E+01	1.07E+01	8.68E-03	8.21E+01	1.74E+01	2.55E+02	3.02E+04	2.88E+05	3.11E+05	1.93E+06	5.83E+05	3.81E+01		1.72E+02	7.03E+04	3.11E+01	1.41E+03	1.81E+02	3.02E+04	7.48E+00	2.79E+02	2.87E+04		
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-100-110	110				0.00E+00						3.37E-03													1.88E+01								7.75E-02				
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-110-120	120				0.00E+00						5.72E-03				1.45E+00																	1.32E-01	4.92E+00			
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-120-140	140				0.00E+00							7.76E-01			6.24E+00		1.94E+01	2.29E+03	2.19E+04	2.36E+04			2.90E+00			5.34E+03	2.36E+00	1.07E+02	1.38E+01		5.69E-01	2.12E+01	2.18E+03		
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-140-150	150				0.00E+00						5.72E-05																									
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-150-160	160	8.53E-02	1.33E-01		0.00E+00			3.27E-02	2.78E-02		9.38E-03	2.95E-01	3.09E-01		2.37E+00												8.97E-01		5.23E+00		2.16E-01	8.06E+00			
Packer Groundwater Samples	SB-BR-03	GW-SB-BR-03-90-100	100				0.00E+00						2.48E-03				6.26E-01												2.37E-01		1.38E+00		5.70E-02				
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-120-130	130	4.89E-02		1.33E-03	0.00E+00						5.38E-03	1.69E-01	1.77E-01		1.36E+00												5.15E-01		3.00E+00		1.24E-01	4.63E+00			
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-130-140	140				0.00E+00																											6.36E-01			
Packer Groundwater Samples	SB-BR-04	GW-SB-BR-04-140-160	160	1.66E-01	2.59E-01		0.00E+00	5.36E-02	2.59E-01	6.38E-02	5.41E-02		1.83E-02	5.74E-01	6.01E-01		4.62E+00								2.14E+00		9.66E+00		1.75E+00	7.94E+01	1.02E+01		4.21E-01	1.57E+01			
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-100-120	120	4.32E-01	6.75E-01		0.00E+00	1.40E-01		1.66E-01	1.41E-01		4.76E-02	1.50E+00	1.56E+00		1.20E+01		3.74E+01	4.42E+03					5.58E+00		2.51E+01		4.55E+00	2.07E+02	2.65E+01		1.10E+00	4.09E+01	4.21E+03		
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-120-130	130	2.05E-01	3.20E-01		0.00E+00	6.61E-02	3.19E-01	7.87E-02	6.68E-02		2.25E-02	7.09E-01	7.41E-01		5.70E+00								2.64E+00				2.16E+00		1.26E+01		5.19E-01	1.94E+01			
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-130-140	140	8.76E-02			0.00E+00						9.63E-03	3.03E-01	3.17E-01		2.44E+00												9.21E-01	4.18E+01	5.37E+00		2.22E-01	8.28E+00			
Packer Groundwater Samples	SB-BR-05	GW-SB-BR-05-90-100	100	2.00E-01	3.12E-01		0.00E+00						2.20E-02	6.92E-01	7.24E-01		5.57E+00								2.58E+00	1.23E+02			2.11E+00	9.56E+01	1.23E+01		5.07E-01	1.89E+01	1.95E+03		
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-100-120	120				0.00E+00						1.37E-02	4.31E-01	4.51E-01		3.47E+00													5.95E+01			3.16E-01	1.18E+01			
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-120-140	140				0.00E+00						3.84E-03																					3.30E+00			
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-140-160	160				0.00E+00						3.67E-03																					3.16E+00			
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90	90				0.00E+00					5.45E-03	1.48E-03													8.23E+00											
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-70-90-1	90				0.00E+00					3.99E-03	1.08E-03																								
Packer Groundwater Samples	SB-BR-06	GW-SB-BR-06-90-100	100				0.00E+00						2.87E-03																					2.47E+00			
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-100-120	120	8.22E-01	1.28E+00		0.00E+00			3.16E-01	2.68E-01		9.05E-02	2.84E+00	2.98E+00		2.29E+01	4.86E+00	7.11E+01	8.40E+03	8.02E+04	8.66E+04			1.06E+01		4.78E+01	1.96E+04	8.65E+00	3.93E+02	5.05E+01		2.08E+00	7.78E+01	8.01E+03		
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-120-140	140	8.02E-01	1.25E+00		0.00E+00	2.59E-01	1.25E+00	3.08E-01	2.62E-01		8.83E-02	2.77E+00	2.90E+00		2.23E+01	4.74E+00	6.94E+01						1.04E+01		4.67E+01		8.44E+00	3.83E+02	4.92E+01		2.03E+00	7.59E+01	7.81E+03		
Packer Groundwater Samples	SB-BR-07	GW-SB-BR-07-90-100	100	2.27E-01	3.55E-01		0.00E+00						2.50E-02	7.86E-01	8.22E-01		6.32E+00								2.93E+00				2.39E+00	1.09E+02	1.39E+01		5.76E-01	2.15E+01	2.21E+03		
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-105-115	115	3.41E-01	5.32E-01		0.00E+00	1.10E-01	5.30E-01	1.31E-01	1.11E-01		3.75E-02	1.18E+00	1.23E+00		9.47E+00								4.39E+00		1.98E+01		3.58E+00		2.09E+01		8.63E-01	3.22E+01			
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-115-125	125	3.13E-01	4.88E-01		0.00E+00	1.01E-01		1.20E-01	1.02E-01		3.44E-02	1.08E+00	1.13E+00		8.70E+00								4.04E+00				3.29E+00	1.49E+02	1.92E+01		7.93E-01	2.96E+01	3.05E+03		
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-125-135	135	4.31E-01	6.73E-01		0.00E+00	1.39E-01	6.72E-01	1.66E-01	1.41E-01		4.74E-02	1.49E+00	1.56E+00		1.20E+01								5.57E+00		2.51E+01		4.54E+00	2.06E+02	2.65E+01		1.09E+00	4.08E+01	4.20E+03		
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140	140	3.96E+00	6.18E+00		0.00E+00	1.28E+00	6.16E+00	1.52E+00	1.29E+00		4.35E-01	1.37E+01	1.43E+01		1.10E+02		3.42E+02	4.04E+04		4.17E+05						9.42E+04	4.16E+01	1.89E+03	2.43E+02		1.00E+01	3.74E+02	3.85E+04		
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-135-140-1	140	1.80E+00	2.80E+00		0.00E+00	5.79E-01		6.90E-01	5.85E-01		1.98E-01	6.21E+00	6.50E+00		5.00E+01								2.32E+01				1.89E+01	8.58E+02	1.10E+02		4.55E+00	1.70E+02	1.75E+04		
Packer Groundwater Samples	SB-BR-10	GW-SB-BR-10-140-160	160	2.94E-02	4.59E-02		0.00E+00				9.59E-03		3.24E-03																								
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-110-120	120	1.07E+00	1.67E+00		0.00E+00	3.45E-01	1.67E+00	4.11E-01	3.49E-01	4.35E-01	1.18E-01	3.70E+00	3.87E+00		2.98E+01		9.25E+01	1.09E+04					1.38E+01		6.22E+01		1.13E+01	5.11E+02	6.57E+01		2.71E+00	1.01E+02	1.04E+04		
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-120-140	140	1.06E+00	1.66E+00		0.00E+00	3.43E-01	1.65E+00	4.08E-01	3.46E-01	4.32E-01	1.17E-01	3.67E+00	3.84E+00		2.95E+01	6.27E+00	9.18E+01						1.37E+01		6.17E+01		1.12E+01	5.07E+02	6.52E+01		2.69E+00	1.00E+02	1.03E+04		
Packer Groundwater Samples	SB-BR-11	GW-SB-BR-11-140-160	160	7.28E-01	1.14E+00		0.00E+00	2.35E-01		2.80E-01	2.37E-01		8.01E-02	2.52E+00	2.64E+00		2.03E+01		6.30E+01	7.44E+03					9.40E+00		4.24E+01		7.66E+00	3.48E+02	4.47E+01		1.85E+00	6.89E+01	7.09E+03		
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-115-140	140	1.32E-01			0.00E+00	4.25E-02	2.05E-01	5.06E-02	4.29E-02		1.45E-02	4.55E-01			3.66E+00								1.70E+00				1.39E+00	6.29E+01	8.08E+00		3.34E-01	1.25E+01			
Packer Groundwater Samples	SB-BR-12	GW-SB-BR-12-140-160	160				0.00E+00				3.92E-02		1.32E-02																					3.05E-01	1.14E+01			
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-140-150	150				0.00E+00						7.96E-04																						6.84E-01			
Packer Groundwater Samples	SB-BR-13	GW-SB-BR-13-190-200	200				0.00E+00						1.09E-02													6.07E+01											
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-83-110	110				0.00E+00					5.55E-03																										
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120	120	3.70E-01	5.78E-01		0.00E+00	1.19E-01		1.42E-01	1.21E-01		4.07E-02	1.28E+00	1.34E+00		1.03E+01								4.78E+00		2.15E+01		3.90E+00		2.27E+01		9.38E-01	3.50E+01			
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-110-120-1	120	3.61E-01	5.63E-01		0.00E+00	1.16E-01		1.39E-01	1.18E-01		3.97E-02	1.25E+00	1.31E+00		1.00E+01								4.66E+00		2.10E+01		3.80E+00		2.21E+01		9.14E-01	3.41E+01			
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-120-130	130	4.58E-01	7.15E-01		0.00E+00	1.48E-01	7.14E-01	1.76E-01	1.49E-01		5.04E-02	1.58E+00	1.66E+00		1.27E+01								5.91E+00		2.66E+01		4.82E+00		2.81E+01		1.16E+00	4.33E+01			
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-130-140	130										1.39E-02													7.73E+01								3.19E-01	1.19E+01			
Packer Groundwater Samples	SB-BR-LIF16	GW-SB-BR-LIF16-140-160	140										1.15E-02													6.39E+01											
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-110-120	120	2.61E+00	4.07E+00		0.00E+00	8.41E-01		1.00E+00	8.50E-01		2.87E-01	9.01E+00	9.43E+00		7.25E+01		2.25E+02	2.66E+04	2.54E+05	2.74E+05			3.36E+01		1.52E+02	6.20E+04	2.74E+01	1.25E+03	1.60E+02		6.61E+00	2.46E+02	2.54E+04		
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-130-140	140	3.04E-01	4.75E-01		0.00E+00						3.35E-02	1.05E+00	1.10E+00		8.46E+00								3.92E+00		1.77E+01		3.20E+00	1.45E+02	1.87E+01		7.71E-01	2.88E+01	2.96E+03		
Packer Groundwater Samples	SB-BR-LIF18	GW-SB-BR-LIF18-140-160	160				0.00E+00						9.58E-03				2.42E+00																	2.21E-01	8.24E+00			
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-120-130	130				0.00E+00						2.29E-03																								
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-130-140	140	5.96E-02		1.62E-03	0.00E+00	1.92E-02		2.29E-02	1.94E-02		6.56E-03																								
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-140-150	150	4.21E-02		1.15E-03	0.00E+00	1.36E-02		1.62E-02	1.37E-02	1.71E-02	4.63E-03																								
Packer Groundwater Samples	SB-MW-22	GW-SB-MW-22-150-160	160	1.27E-01	1.98E-01	3.45E-03	0.00E+00	4.09E-02	1.97E-01	4.87E-02	4.13E-02		1.39E-02																								
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-100-120	120	1.74E+00	2.71E+00		0.00E+00	5.60E-01		6.67E-01	5.66E-01		1.91E-01	6.00E+00	6.28E+00		4.83E+01	1.03E+01	1.50E+02						2.24E+01		1.01E+02		1.83E+01	8.29E+02	1.07E+02		4.40E+00	1.64E+02	1.69E+04		
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-120-140	140	7.61E-01	1.19E+00		0.00E+00	2.46E-01		2.92E-01	2.48E-01		8.38E-02	2.63E+00	2.76E+00		2.12E+01		6.58E+01	7.78E+03	7.42E+04	8.02E+04		1.50E+05	9.83E+00			1.81E+04	8.01E+00	3.64E+02	4.67E+01	7.78E+03	1.93E+00	7.20E+01	7.41E+03		
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-140-160	160				0.00E+00						7.78E-03													4.34E+01											
Packer Groundwater Samples	SB-BR-LIF22	GW-SB-BR-LIF22-90-100	100				0.00E+00						5.53E-04																								
Groundwater Samples	EW-1I	EW-1I-20221118	56.3	9.95E-02		2.71E-03	0.00E+00	3.21E-02	1.55E-01	3.82E-02	3.24E-02		1.09E-02	3.44E-01			2.77E+00								1.28E+00								2.52E-01				
Groundwater Samples	EW-2I	EW-2I-20221118	59.4			2.21E-05	0.00E+00	2.62E-04		3.12E-04	2.65E-04																											
Groundwater Samples	EW-4I	EW-4I-20221116	90.5			8.53E-04	0.00E+00		4.88E-02	1.20E-02	1.02E-02						8.72E-01																				
Groundwater Samples	EW-5I	EW-5I-20221117	55.1			8.15E-05	0.00E+00		4.66E-03																												
Groundwater Samples	MW-03I	MW-3I-20221118	61.9	9.82E-02		2.67E-03	0.00E+00	3.17E-02	1.53E-01	3.77E-02	3.20E-02		1.08E-02	3.40E-01			2.73E+00								1.27E+00		5.71E+00		1.03E+00				2.49E-01				
Groundwater Samples	MW-08B	MW-08B-20221116	121.4			2.23E-05	0.00E+00																															
Groundwater Samples	MW-08DI	MW-08DI-20221116	54.7			5.15E-04	0.00E+00	6.10E-03	2.94E-02	7.26E-03	6.16E-03		2.08E-03																								
Groundwater Samples	MW-11B	MW-11B-20221115	169.7	2.00E-02		5.45E-04	0.00E+00	6.46E-03	3.12E-02	7.69E-03	6.53E-03		2.20E-03																								
Groundwater Samples	MW-12B	MW-12B-20221117	129.7	4.91E-01	7.67E-01	1.34E-02	0.00E+00	1.59E-01	7.65E-01	1.89E-01	1.60E-01		5.40E-02	1.70E+00			1.37E+01	2.90E+00	4.25E+01						6.34E+00		2.86E+01		5.17E+00	2.35E+02	3.02E+01			4.65E+01	4.78E+03		
Groundwater Samples	MW-12I	MW-12I-20221117	54.6	2.83E-01	4.41E-01	7.70E-03	0.00E+00	9.12E-02	4.40E-01	1.09E-01	9.22E-02		3.11E-02	9.78E-01			7.87E+00								3.65E+00				2.97E+00		1.74E+01		7.17E-01	2.67E+01			
Groundwater Samples	MW-13B	MW-13B-20221115	169			1.89E-05	0.00E+00																														
Groundwater Samples	MW-20B	MW-20B-20221116	105	2.13E-02	3.33E-02	5.80E-04	0.00E+00	6.88E-03		8.18E-03	6.95E-03	8.66E-03	2.34E-03	7.37E-02	7.71E-02		5.93E-01												2.24E-01		1.31E+00		5.40E-02	2.01E+00			
Groundwater Samples	MW-21B	MW-21B-20221116	147	5.12E-02	8.00E-02	1.39E-03	0.00E+00	1.65E-02	7.98E-02	1.97E-02	1.67E-02		5.64E-03	1.77E-01			1.43E+00								6.61E-01		2.98E+00		5.39E-01	2.45E+01	3.14E+00		1.30E-01	4.84E+00	4.99E+02		
Groundwater Samples	MW-21I	MW-21I-20221116	115			3.45E-05	0.00E+00																														
Groundwater Samples	MW-22B	MW-22B-20230112	127	3.68E-01	5.75E-01	1.00E-02	0.00E+00	1.19E-01	5.74E-01	1.41E-01	1.20E-01	1.50E-01	4.05E-02	1.27E+00	1.33E+00		1.02E+01	2.18E+00	3.19E+01						4.75E+00	2.26E+02	2.14E+01		3.88E+00	1.76E+02	2.26E+01		9.34E-01	3.48E+01	3.59E+03		
Groundwater Samples	MW-22I	MW-22I-3-20230117	50	7.82E+00	1.22E+01	2.13E-01	0.00E+00	2.52E+00	1.22E+01	3.00E+00	2.55E+00	3.18E+00	8.60E-01	2.70E+01	2.83E+01		2.17E+02	4.62E+01							1.01E+02	4.80E+03	4.55E+02		8.22E+01		4.80E+02		1.98E+01				

Notes
MW=Molecular weight of compound
Csat=Aqueous solubility of compound
The references for the Csat values are located on Table 4-11

Table 4-10
Physical Properties of Chemicals used in Molar Fraction and Effective Solubility Calculations
GCL Tie and Treating Superfund Site
Sidney, New York

Compound Name	Molecular Weight (g/mol)	Csat (µmol/L)	Reference for C_{sat}
Benzo(g,h,i)perylene	276.33	0.00	National Institutes of Health (2023)
Benzo(k)fluoranthene	252.31	0.00	National Institutes of Health (2023)
Benzo(b)fluoranthene	252.31	0.01	National Institutes of Health (2023)
Benzo(a)pyrene	252.31	0.01	National Institutes of Health (2023)
Chrysene	228.3	0.03	Montgomery and Welkom (1990)
Benzo(a)anthracene	228.3	0.06	National Institutes of Health (2023)
Pyrene	202.26	0.06	Montgomery and Welkom (1990)
bis(2-Ethylhexyl) Phthalate	390.57	1.02	Montgomery and Welkom (1990)
Fluoranthene	202.26	1.31	Montgomery and Welkom (1990)
Phenanthrene	178.24	6.62	Montgomery and Welkom (1990)
Anthracene	178.24	7.24	Montgomery and Welkom (1990)
Fluorene	166.22	10.20	Montgomery and Welkom (1990)
Carbazole	167.21	10.76	National Institutes of Health (2023)
Acenaphthene	154.21	22.50	Montgomery and Welkom (1990)
Biphenyl (Diphenyl)	154.21	48.51	National Institutes of Health (2023)
Dibenzofuran	168.2	59.50	Montgomery and Welkom (1990)
Indeno(1,2,3-c,d)pyrene	276.34	59.50	National Institutes of Health (2023)
Acenaphthylene	152.2	106.00	National Institutes of Health (2023)
2-Methylnaphthalene	142.2	173.00	Montgomery and Welkom (1990)
1-methylnaphthalene	142.2	181.00	National Institutes of Health (2023)
Naphthalene	128.16	247.00	Howard (1989)
1,3,5-Trimethylbenzene (Mesitylene)	120.19	401.00	Montgomery (1991)
Isopropylbenzene	120.19	402.00	National Institutes of Health (2023)
1,2,4-Trimethylbenzene	120.19	626.00	Montgomery (1991)
Styrene	104.15	1,540.00	Montgomery and Welkom (1990)
M, P Xylenes	106.17	1,630.00	Montgomery and Welkom (1990)
o-Xylene (1,2-Dimethylbenzene)	106.17	1,920.00	Montgomery and Welkom (1990)
Ethylbenzene	106.17	1,940.00	Montgomery and Welkom (1990)
Dibromochloromethane	208.28	2,700.00	National Institutes of Health (2023)
Toluene	92.14	5,690.00	Montgomery and Welkom (1990)
Benzene	78.11	23,000.00	Montgomery and Welkom (1990)
4-Methylphenol (P-Cresol)	108.14	213,000.00	Montgomery and Welkom (1990)

[C_{sat}, aqueous solubility at 25 degrees Celsius, unless noted as at 20 degrees Celsius by '@ 20C'; mg/L, milligrams per liter; µmol/L, micromoles per liter; g/mol, grams per mole.]

PubChem = https://pubchem.ncbi.nlm.nih.gov/

Table 4-11
NAPL Observations
GCL Tie and Treating Superfund Site
Sidney, New York

Well ID	Date	Observation
Shallow Water Bearing Unit		
PZ-02S	12/12/2016	NAPL
	11/11/2022	Globules
MW-03S	6/29/1995	NAPL
	12/1/2011	NAPL
	11/11/2022	Globules
MW-17S	4/4/2016	Globules
	1/12/2023	Globules
Intermediate Water Bearing Unit		
PZ-02I	11/11/2022	0.18 feet / 2 inches NAPL measured
MW-17I	4/4/2016	Globules
	1/12/2023	Globules
MW-22I	1/12/2023	Globules
	5/18/2023	Globules
Bedrock Water Bearing Unit		
EW-1B	12/12/2016	NAPL Observed on Pump
EW-2B	12/12/2016	NAPL Observed on Pump
MW-03B	7/13/2006	Globules
	4/4/2016	Globules
	11/11/2022	0.16 feet NAPL
	1/12/2023	Globules
	5/18/2023	Globules
MW-07D	11/12/2022	Globules on bailer and string
MW-07B	6/29/1995	Globules
	9/29/2022	0.95 ft DNAPL
	11/10/2022	1.4 feet DNAPL; Removed NAPL
	1/12/2023	Globules
	5/18/2023	Globules
MW-12B	9/30/2020	Odor
	11/10/2022	Odor
MW-17B	4/4/2016	Odor
MW-18B	12/12/2016	Smearing on bailer
	1/12/2023	Globules
	5/18/2023	Globules

NAPL=Non-Aqueous Phase Liquid

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
Start Depth (ft):			75	85	85	100	120	140	80	90	100	110	120
Sample:			GW-SB-BR-01-75-85	GW-SB-BR-01-85-100	GW-SB-BR-01-85-100-1	GW-SB-BR-01-100-120	GW-SB-BR-01-120-140	GW-SB-BR-01-140-160	GW-SB-BR-02-80-90	GW-SB-BR-02-90-100	GW-SB-BR-02-100-108.5	GW-SB-BR-02-110-120	GW-SB-BR-02-120-140
Analyte	**CAS**	**Units**											
Total BTEX			***1.50***	***6.12***	***5.88***	***36.60***	***7.46***	***12.40***	***10.80***	***5.10***	***4.12***	***3.28***	***3.94***
1,1,1-Trichloroethane	71-55-6	ug/l	1	0.62 J	0.6 J	1.1	1.1		4.7	7.2	7.3	7.4	
1,1-Dichloroethane	75-34-3	ug/l	0.88 J	0.68 J		1.9	1.3		3.8	12	11	9.4	0.66 J
1,1-Dichloroethene	75-35-4	ug/l								3.8	3.8	3.6	
1,2,4-Trimethylbenzene	95-63-6	ug/l		1	1	44	7.6	0.92 J	4.3	11	6.3	3.3	2.3
1,2-Dichloroethane	107-06-2	ug/l											
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l		0.54 J	0.54 J	26	4	0.5 J	1.6	6.2	3.4	1.9	1.1
2-Butanone	78-93-3	ug/l											
Acetone	67-64-1	ug/l							66				
Benzene	71-43-2	ug/l											
Carbon Disulfide	75-15-0	ug/l						0.54 J					
Chloroform	67-66-3	ug/l											
Chloromethane	74-87-3	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l	2.7	3.4	3.3	5.1	3.4		21	50	40	40	1.5
Dibromochloromethane	124-48-1	ug/l											
Ethylbenzene	100-41-4	ug/l				3.9	0.66 J		1	0.5 J	0.46 J	0.22 J	0.42 J
Isopropylbenzene	98-82-8	ug/l				1.9	0.28 J		0.16 J	0.46 J	0.26 J	0.14 J	
M, P Xylenes	179601-23-1	ug/l		0.28 J	0.28 J	18	2.9	0.26 J	3.9	2.1	1.9	0.94 J	1.7
Methyl tert-Butyl Ether	1634-04-4	ug/l					1						0.6 J
Methylene Chloride	75-09-2	ug/l											
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l		0.14 J		8.5	1.4	0.14 J	1.6	1.3	1.1	0.62 J	0.88 J
Styrene	100-42-5	ug/l							1				
Toluene	108-88-3	ug/l	1.5	5.7	5.6	6.2	2.5	12	4.3	1.2	0.66 J	1.5	0.94 J
trans-1,2-Dichloroethene	156-60-5	ug/l											
Trichloroethene (TCE)	79-01-6	ug/l	2.2	0.68 J	0.68 J	0.58 J	0.36 J		4.6	7.5	8.1	7.8	
Vinyl Chloride	75-01-4	ug/l								2.5	1.6		
Total SVOCs			***6.00***	***290.00***	***261.90***	***6233.50***	***1063.20***	***203.30***	***657.70***	***2918.80***	***2341.80***	***550.40***	***230.73***
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	1.4 J	2.40	2.4	2.9	2.6		3.4	8.6	8.7	7.5	0.83 J
1-methylnaphthalene	90-12-0	ug/l		17.00	15	360	73	14	37	200	150	45	16
2-Methylnaphthalene	91-57-6	ug/l		35	31	760	160	26	65	320	250	66	30
4-Chloroaniline	106-47-8	ug/l											
4-Methylphenol (P-Cresol)	106-44-5	ug/l								19	32	15	
4-Nitroaniline	100-01-6	ug/l											
Acenaphthene	83-32-9	ug/l		28	26	510	110	23	38	280	210	62	24
Acenaphthylene	208-96-8	ug/l				23	4.1 J		11	10	12	3.3 J	
Anthracene	120-12-7	ug/l		3.5 J	3.2 J	62	8		5.6	30	23	5.7	
Benzo(a)anthracene	56-55-3	ug/l		4.7 J	3.7 J	95 J	4.5 J			38	30	5	
Benzo(a)pyrene	50-32-8	ug/l				46 J-				18	15		
Benzo(b)fluoranthene	205-99-2	ug/l				62 J-				24	20		
Benzo(g,h,i)perylene	191-24-2	ug/l				13 J-				5.1	4.3 J		
Benzo(k)fluoranthene	207-08-9	ug/l				24 J-				9.6	6.2		
Biphenyl (Diphenyl)	92-52-4	ug/l		7.4	6.6	140	28	5.4	13	55	43	20	6.3
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l											
Carbazole	86-74-8	ug/l				51	10		13	20	18	7.9 J	
Chrysene	218-01-9	ug/l				56				26	19		
Dibenz(a,h)anthracene	53-70-3	ug/l				4.6 J-							
Dibenzofuran	132-64-9	ug/l		22	20	400	73	17	35	220	180	49	18
Fluoranthene	206-44-0	ug/l		25	22	480	45	12	8.8	230	200	28	8.5
Fluorene	86-73-7	ug/l		25	23	410	75	19	39	230	190	49	20
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l				14 J-				5.5	4.6 J		
Naphthalene	91-20-3	ug/l		43	39	1400	280	36	330	510	420	92	64
N-Nitrosodiphenylamine	86-30-6	ug/l											
Phenanthrene	85-01-8	ug/l	4.6 J	61	56	980	160	44	54	500	430	76	38
Phenol	108-95-2	ug/l											
Pyrene	129-00-0	ug/l		16	14	340	30	6.9	4.9 J	160	76	19	5.1
Total VOC TICs			***10.10***	***15.46***	***15.70***	***448.20***	***59.46***	***11.26***	***142.48***	***99.00***	***73.10***	***42.98***	***24.32***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/l											
(E)-Tetradec-2-enal	51534-36-2	ug/l											
1,2,3,4-Tetramethylbenzene	488-23-3	ug/l						0.24 NDJ			2.1 DNJ	1.3 NDJ	
1,2,3,5-Tetramethylbenzene	527-53-7	ug/l				5.5 NDJ	1.8 NDJ				2.3 NDJ	1.6 DNJ	
1,2,3-Trimethyl Benzene	526-73-8	ug/l					0.58 NDJ						
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l		0.34 NDJ			1.4 NDJ		1.5 NDJ	3.3 NDJ			
1,2-Dimethylindan	17057-82-8	ug/l											
1,3,8-P-Menthatriene	21195-59-5	ug/l											
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene	76089-59-3	ug/l				7.8 DNJ							
1,3-Dimethylnaphthalene	575-41-7	ug/l				4 DNJ				4.2 DNJ			
1,4-Dihydro-1,4-Methanonaphthalene	4453-90-1	ug/l											
1,4-DIHYDRONAPHTHALENE	612-17-9	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l								2.1 DNJ			
1,7-Dimethyl Naphthalene	575-37-1	ug/l		0.62 NDJ								2 NDJ	
1-CYCLOPROP-2-EN-1-YL-2-METHYLBENZENE	65051-83-4	ug/l											
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/l				7.9 NDJ	2.9 NDJ					2 NDJ	
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l				8.9 NDJ	2.9 NDJ					2.5 DNJ	
1-Ethyl Naphthalene	1127-76-0	ug/l		0.38 NDJ	0.38 NDJ		0.82 NDJ	0.2 NDJ		2.4 NDJ			0.4 NDJ
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/l				6 DNJ		0.12 NDJ					0.12 NDJ
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l		0.42 NDJ	0.42 NDJ	11 NDJ	3.2 NDJ	0.32 NDJ		4.5 DNJ	2.4 DNJ		0.8 NDJ
1-ethylidene- Indene	2471-83-2	ug/l											
1-Ethyltoluene	611-14-3	ug/l				16 DNJ			1.2 NDJ	4.3 NDJ	2.5 NDJ	1.5 NDJ	0.18 NDJ
1-Ethynyl-4-Methylbenzene	766-97-2	ug/l											
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l			0.56 NDJ	13 DNJ	3.9 NDJ				4.9 NDJ		0.82 NDJ
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/l											
1h-Indene, 2,3-Dihydro-2,2-Dimethyl-	824-63-5	ug/l											
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l						0.38 NDJ		7.4 NDJ	3.5 NDJ		
1-Methyl-1-Cyclohexene	1587-04-8	ug/l											
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/l			0.8 NDJ								
1-Methylindan	767-58-8	ug/l			0.46 NDJ			0.38 NDJ	2.4 NDJ	5 NDJ	3.1 NDJ	2.3 DNJ	
1-Methylindene	767-59-9	ug/l							0.9 NDJ				
1-methylnaphthalene	90-12-0	ug/l											
1-Pentenylbenzene	824-90-8	ug/l									4.7 DNJ		
1-Phenyl-1-Propyne	673-32-5	ug/l											
2-(2-Hydroxyphenyl)buta-1,3...	38865-47-3	ug/l											
2,3-Benzofuran	271-89-6	ug/l							0.84 NDJ				
2,3-Dihydro-1h-Indene	496-11-7	ug/l		2.8 NDJ	2.8 NDJ	54 NDJ	18 NDJ	2.4 NDJ	8.2 NDJ	19 NDJ	13 NDJ	7.8 NDJ	7.9 NDJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l			0.6 NDJ			0.28 NDJ	0.38 NDJ	3.6 NDJ	2.4 NDJ	1.6 NDJ	
2,6-Dimethyl-Napthalene	581-42-0	ug/l		0.66 NDJ			1.3 NDJ		1.8 NDJ	5.2 DNJ	2.9 NDJ		
2,7-Dimethyl Naphthalene	582-16-1	ug/l			0.66 NDJ		1 NDJ	0.32 NDJ		2.8 NDJ			0.68 NDJ

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
Start Depth (ft):			75	85	85	100	120	140	80	90	100	110	120
Sample:			GW-SB-BR-01-75-85	GW-SB-BR-01-85-100	GW-SB-BR-01-85-100-1	GW-SB-BR-01-100-120	GW-SB-BR-01-120-140	GW-SB-BR-01-140-160	GW-SB-BR-02-80-90	GW-SB-BR-02-90-100	GW-SB-BR-02-100-108.5	GW-SB-BR-02-110-120	GW-SB-BR-02-120-140
Analyte	**CAS**	**Units**											
2a,4a,6a,6b-Tetrahydrocyclo...	6053-74-3	ug/l											
2-Decenal, (Z)-	2497-25-8	ug/l											
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/l					0.78 NDJ						
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/l											
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/l					1.5 NDJ		0.74 NDJ	3 NDJ	1.7 DNJ		
2-METHYLBENZOFURAN	4265-25-2	ug/l				9.9 NDJ							
2-METHYLINDENE	2177-47-1	ug/l				3.8 NDJ	0.96 NDJ		0.7 NDJ				
2-Methylnaphthalene	91-57-6	ug/l							19 NDJ				
2-Octenal, (E)-	2548-87-0	ug/l											
3,5-Dimethyl-1-Ethylbenzene	934-74-7	ug/l		0.18 NDJ	0.3 NDJ								0.38 NDJ
3a,6-Methano-3aH-indene, 2,...	98640-29-0	ug/l											
3-Hydroxyphenylacetylene	10401-11-3	ug/l											
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/l											
3-phenyl-2-propenal	104-55-2	ug/l											
3-Phenyl-2-propyn-1-ol	1504-58-1	ug/l											
3-Phenylbut-1-ene	934-10-1	ug/l											
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/l		0.28 NDJ				0.2 NDJ				1.3 DNJ	
4-Ethyltoluene	622-96-8	ug/l											
5-Methylbenzimidazole	614-97-1	ug/l											
Azulene	275-51-4	ug/l				230 NDJ							
Benzene, (1-methyl-1-propen... (02)	767-99-7	ug/l											
BENZENE, (1-METHYL-1-PROPENYL)-, (E)-	768-00-3	ug/l											
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/l											0.84 NDJ
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/l											
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/l			0.34 NDJ	4.1 NDJ					2.1 DNJ	1.1 NDJ	
Benzene, 2-Butenyl	1560-06-1	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l		0.8 NDJ		11 NDJ		0.62 NDJ	1.5 NDJ	5.6 NDJ	3.3 DNJ	2.1 NDJ	1.2 NDJ
Benzo[b]thiophene	95-15-8	ug/l				8.8 NDJ	2.8 NDJ		2.9 NDJ	2.9 NDJ		2.1 NDJ	
Benzo[C]Thiophene	270-82-6	ug/l				14 DNJ					3.3 DNJ		0.98 NDJ
BENZOCYCLOHEPTATRIENE	264-09-5	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l											1.1 NDJ
Biphenyl (Diphenyl)	92-52-4	ug/l											
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l									3.8 NDJ		
Cymene	99-87-6	ug/l											
Decyl Aldehyde	112-31-2	ug/l	0.22 NDJ										
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l											
Ethyl Acetate	141-78-6	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l							0.68 NDJ	3.3 DNJ	1.7 NDJ	1.2 NDJ	
Furan, 2-pentyl-	3777-69-3	ug/l											
Heptanal	111-71-7	ug/l											
Hexanal	66-25-1	ug/l	2 NDJ	0.82 NDJ	0.84 NDJ			0.82 NDJ					
Indene	95-13-6	ug/l		0.86 NDJ	0.88 NDJ	24 NDJ	7.1 NDJ	0.44 NDJ	6.5 NDJ	5.7 NDJ	5.7 NDJ	3.2 NDJ	4.4 NDJ
M-Cymene	535-77-3	ug/l								2.2 NDJ	1.7 NDJ		
Naphthalene	91-20-3	ug/l							76 NDJ				
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/l		0.52 NDJ	0.5 NDJ	8.5 NDJ	2.8 NDJ	0.34 NDJ		4.4 NDJ	2.9 NDJ	1.8 NDJ	0.84 NDJ
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l							1.6 NDJ			2 DNJ	0.58 NDJ
NAPHTHALENE, 2-ETHENYL-	827-54-3	ug/l							1.2 NDJ				
N-Butyraldehyde	123-72-8	ug/l											
Nonanol	124-19-6	ug/l	2.2 NDJ	2 NDJ	2.1 NDJ			1.5 NDJ	0.58 NDJ				
Octanal	124-13-0	ug/l	0.8 NDJ	0.36 NDJ	0.38 NDJ			0.36 NDJ					
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/l			0.28 NDJ		1.1 NDJ						
Propylene	115-07-1	ug/l	1.9 NDJ	1.2 NDJ									
Total Alkane Tics	E966796	ug/l	1 DJ										
Unknown-01	UNKNOWN-01	ug/l	0.32 DJ	0.42 BDJ	1.2 DJ		0.76 DJ	0.78 DJ	0.46 DJ	6 DNJ	1.4 NDJ	0.98 DJ	0.46 DJ
Unknown-02	UNKNOWN-02	ug/l	0.34 BDJ	0.32 BDJ	0.56 BDJ		0.66 DJ	0.32 BDJ	1.2 NDJ	2.1 DJ	1.7 DJ	3 NDJ	0.3 BDJ
Unknown-03	UNKNOWN-03	ug/l	0.22 DJ	0.16 DJ	0.32 DJ		1.5 DJ	0.14 BDJ	0.8 DJ			1.6 DJ	0.38 BDJ
Unknown-04	UNKNOWN-04	ug/l	0.14 DJ	0.48 DJ	0.22 DJ		0.72 DJ	0.3 DJ	1.1 NDJ				0.46 DJ
Unknown-05	UNKNOWN-05	ug/l	0.14 DJ	0.56 NDJ	0.56 DJ		0.48 DJ	0.18 DJ	0.72 DJ				0.58 DJ
Unknown-06	UNKNOWN-06	ug/l	0.26 DJ	0.18 DJ	0.28 DJ		0.5 DJ	0.32 DJ	0.46 DJ				0.28 DJ
Unknown-07	UNKNOWN-07	ug/l	0.12 DJ	0.56 DJ	0.26 DJ			0.2 DJ	0.42 DJ				0.2 DJ
Unknown-08	UNKNOWN-08	ug/l	0.44 DJ	0.28 DJ				0.1 DJ	7.9 NDJ				0.2 DJ
Unknown-09	UNKNOWN-09	ug/l		0.26 DJ					0.8 NDJ				0.24 DJ
Unknown-10	UNKNOWN-10	ug/l											
Unknown-11	UNKNOWN-11	ug/l											
Unknown-12	UNKNOWN-12	ug/l											
Unknown-13	UNKNOWN-13	ug/l											
Unknown-14	UNKNOWN-14	ug/l											
Unknown-15	UNKNOWN-15	ug/l											
Unknown-16	UNKNOWN-16	ug/l											
Unknown-17	UNKNOWN-17	ug/l											
Unknown-18	UNKNOWN-18	ug/l											
Total SVOC TICs			46	79.3	62.9	940.5	644.6	61.1	128.3	469.3	325.1	109.4	28.4
1,1'-BIPHENYL, 2-METHYL-	643-58-3	ug/l											
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/l					6.1 NJ		2.8 NJ	12 NJ	9.8 NJ	3.2 NJ	
1,1'-METHYLENEBIS-BENZENE	101-81-5	ug/l				20 NJ	3.6 NJ			7.7 NJ	6 NJ	2.2 NJ	
1,2,3-Trimethyl Benzene	526-73-8	ug/l				28 NJ	6.6 NJ		5.5 NJ		5.6 NJ		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l				13 NJ				7.2 NJ		2.5 NJ	
1,3-Dimethylnaphthalene	575-41-7	ug/l											
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l			2.9 NJ								
1,6,7-Trimethyl-Napthalene	2245-38-7	ug/l				10 NJ	3.1 NJ						
1,7-Dimethyl Naphthalene	575-37-1	ug/l											
11h-Benzo[b]Fluorene	243-17-4	ug/l		3.8 NJ	3 NJ	48 DNJ				7.3 NJ	8.2 NJ	2.9 NJ	
12-Hydroxystearic acid	106-14-9	ug/l											
1-Acenaphthenol	6306-07-6	ug/l											
1-Butenyl-(E)-Benzene	1005-64-7	ug/l											
1-Ethenyl-2-Methyl-Benzene	611-15-4	ug/l											
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l											
1-Ethyl Naphthalene	1127-76-0	ug/l											
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l											
1-Ethyltoluene	611-14-3	ug/l											
1-Heptadecanol	1454-85-9	ug/l											
1-Hexanol	111-27-3	ug/l											
1H-Indazole, 3-methyl-	1000316-00-2	ug/l							3.7 NJ				
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l							2.6 NJ				
1H-Indene, Octahydro-, cis-	824-22-6	ug/l					3.3 NJ						
1-Iodo-2-Methylundecane	1855-47-6	ug/l											

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location: / Start Depth (ft): / Sample:			SB-BR-01 75 GW-SB-BR-01-75-85	SB-BR-01 85 GW-SB-BR-01-85-100	SB-BR-01 85 GW-SB-BR-01-85-100-1	SB-BR-01 100 GW-SB-BR-01-100-120	SB-BR-01 120 GW-SB-BR-01-120-140	SB-BR-01 140 GW-SB-BR-01-140-160	SB-BR-02 80 GW-SB-BR-02-80-90	SB-BR-02 90 GW-SB-BR-02-90-100	SB-BR-02 100 GW-SB-BR-02-100-108.5	SB-BR-02 110 GW-SB-BR-02-110-120	SB-BR-02 120 GW-SB-BR-02-120-140
Analyte	**CAS**	**Units**											
1-Methyl-3-Propyl-Cyclohexane	3333-13-9	ug/l											
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/l											
1-Phenyl-1-Propyne	673-32-5	ug/l											
2(1H)-Quinolinone, 3-methyl-	2721-59-7	ug/l											
2-(2-Butoxyethoxy)Ethanol	112-34-5	ug/l											
2(3H)-Furanone, 5-hexyldihy...	121644-12-0	ug/l											
2,3-Benzofuran	271-89-6	ug/l							2.1 NJ				
2,3-Dihydro-1h-Indene	496-11-7	ug/l			2 NJ	71 NJ	16 NJ		7.9 NJ	13 NJ		4.8 NJ	5.9 NJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l		2 NJ		28 NJ	6.2 NJ		3.7 NJ	13 NJ	11 NJ	3.9 NJ	
2,4-Nonadiyne	63621-15-8	ug/l											
2,5-Dimethyl Phenanthrene	3674-66-6	ug/l								13 NJ	11 NJ		
2,7-Dimethyl Naphthalene	582-16-1	ug/l		5.4 NJ	4.9 NJ	87 NJ	18 NJ	4 NJ	9.9 NJ	49 DNJ	31 NJ	11 NJ	4 NJ
2-Chlorocyclohexanol	1561-86-0	ug/l	3.2 BNJ	3.3 BNJ	3.1 BNJ			3.4 BNJ					
2-Ethyl-1-Hexanol	104-76-7	ug/l											
2-Ethylhexanoic Acid	149-57-5	ug/l											
2-METHYLBENZOFURAN	4265-25-2	ug/l											
2-Methylphenylacetylene	766-47-2	ug/l											
2-Phenyl Naphthalene	612-94-2	ug/l								14 NJ	11 NJ		
3-Hydroxyphenylacetylene	10401-11-3	ug/l											
3'-Methyl-[1,1'-biphenyl]-4...	400744-83-4	ug/l								8.8 NJ			
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l					3.5 NJ						
3-Methylbutanoic Acid	503-74-2	ug/l										4.8 NJ	
3-Methylphenylacetylene	766-82-5	ug/l											
3-Phenylbut-1-ene	934-10-1	ug/l											
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/l									5.1 NJ		
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/l		7.4 NJ	6.9 NJ		17 NJ	4.7 NJ	5.1 NJ	47 NJ	38 NJ	9.6 NJ	3.7 NJ
4-Methyldibenzofuran	7320-53-8	ug/l		3.8 NJ	2 NJ		7.1 NJ			16 NJ	12 NJ	5 DNJ	
4-Oxononanal	1000314-10-4	ug/l											
4-PHENYLBENZALDEHYDE	3218-36-8	ug/l				46 DNJ							
5-Amino-1-naphthol	83-55-6	ug/l											
7H-BENZO[C]CARBAZOLE	205-25-4	ug/l									4.7 NJ		
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/l											
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Oxoxantho(2,3-G)	84-65-1	ug/l						3.2 NJ					
9H-Fluoren-3-ol	6344-67-8	ug/l			3.6 NJ	44 NJ		2.9 NJ	4.4 NJ	25 NJ	21 NJ	4.3 NJ	2.4 NJ
9H-Fluorene, 1-methyl-	1730-37-6	ug/l											
9H-Fluorene, 2-methyl-	1430-97-3	ug/l					5.8 NJ		2.4 NJ	15 NJ	13 NJ	3.4 NJ	
9H-Fluorene, 9-methyl-	2523-37-7	ug/l											
Anthracene, 9,10-dihydro-	613-31-0	ug/l											
Azelaic Acid	123-99-9	ug/l											
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-YLIDEN	2320-32-3	ug/l				14 NJ	5 NJ			10 NJ	7.8 NJ	2.7 NJ	
BENZENE, 1-BUTYNYL-	622-76-4	ug/l							6 NJ				
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l								12 NJ	8.7 NJ	3.6 NJ	
Benzeneacetic Acid	103-82-2	ug/l								14 NJ	27 NJ	11 NJ	
Benzenesulfonamide, N-butyl-	3622-84-2	ug/l											
Benzo(a)fluorene	238-84-6	ug/l											
Benzo(b)thiophene, 2,3-dihydro-	4565-32-6	ug/l											
Benzo[b]thiophene	95-15-8	ug/l							11 NJ	16 NJ	13 NJ	5.7 NJ	3.9 NJ
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/l											
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/l											
Benzo[C]Thiophene	270-82-6	ug/l		3.4 NJ		55 DNJ	11 NJ						
Benzo[e]pyrene	192-97-2	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l					3.3 NJ						
Benzoic Acid	65-85-0	ug/l											
Butyl citrate	77-94-1	ug/l	5.2 NJ	7.5 NJ	7 NJ			3.8 NJ	8.3 NJ			8.5 NJ	
Cyclohexene	110-83-8	ug/l				170 BNJ							
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l											
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/l							3.5 NJ				
Decanedioic acid	111-20-6	ug/l	12 NJ	13 NJ	9 NJ			16 NJ					
Decanoic Acid	334-48-5	ug/l											
Dibenzothiophene (Synfuel)	132-65-0	ug/l			3.7 NJ		11 NJ	3 NJ	4.7 NJ	24 NJ	20 NJ	6.3 NJ	2.7 NJ
Dichlorocyclohexane; trans-1,2-	822-86-6	ug/l											
Dimantine	124-28-7	ug/l											
Dimethyl Anthracene; 9,10-	781-43-1	ug/l											
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l											
Dodecanoic Acid	143-07-7	ug/l											
Ethenyl-cyclobutane	2597-49-1	ug/l					290 DNJ						
Ethyl Naphthalene; 2-	939-27-5	ug/l				43 DNJ							
Ethylidenecyclobutane	1528-21-8	ug/l					190 BNJ						
Fluoranthene, 2-Methyl-	33543-31-6	ug/l							4.7 NJ				
Heptanal	111-71-7	ug/l											
Heptanoic Acid	111-14-8	ug/l											
Hexadecanoic Acid	57-10-3	ug/l											
Hexanal	66-25-1	ug/l	4.5 NJ	2.1 NJ	2 NJ			2.1 NJ					
Hexanoic Acid (Dot)	142-62-1	ug/l	3.9 NJ	2.8 NJ	2.7 NJ			4.4 NJ	2.2 NJ				
HEXATHIANE	13798-23-7	ug/l											
Indene	95-13-6	ug/l		2.1 NJ		75 NJ	16 NJ		22 NJ	13 NJ	14 NJ	5.6 NJ	5.8 NJ
Methyl 2,5,8,11,14,17,20-he...	1010366-81-3	ug/l											
Methyl Anthracene; 2-	613-12-7	ug/l								9 NJ			
Methyl Phenanthrene; 2-	2531-84-2	ug/l				53 DNJ				31 DNJ	6.9 NJ		
Methyl Pyrene	2381-21-7	ug/l											
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/l							3.4 NJ				
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l											
Naphthalene, 2-(1-methyleth...	2027-17-0	ug/l											
Naphtho[1,2-b]thiophene	234-41-3	ug/l											
Naphtho[2,1-b]thiophene	233-02-3	ug/l		4.1 NJ									
Nonanoic Acid	112-05-0	ug/l	4.8 NJ	6.1 NJ	5.6 NJ			7.6 NJ	2 NJ			2.1 NJ	
Nonanol	124-19-6	ug/l	2.5 NJ	2 NJ	2 NJ								
Nonanol; 1-	143-08-8	ug/l											
Octadecanoic Acid	57-11-4	ug/l											
Octanoic Acid	124-07-2	ug/l	2 NJ	2.7 NJ	2.5 NJ			3.7 NJ					
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l											
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/l											
Phenanthrene, 9,10-dihydro-	776-35-2	ug/l											
Phenylpropionic Acid; 3-	501-52-0	ug/l											
P-Xylene (1,4-Dimethylbenzene)	106-42-3	ug/l											
Quinoline, 2-Methyl-	91-63-4	ug/l							3.1 NJ				
Tetradecanoic Acid	544-63-8	ug/l											
Toluene	108-88-3	ug/l							2.4 NJ				

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Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-01	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02	SB-BR-02
			Start Depth (ft):	75	85	85	100	120	140	80	90	100	110	120
			Sample:	GW-SB-BR-01-75-85	GW-SB-BR-01-85-100	GW-SB-BR-01-85-100-1	GW-SB-BR-01-100-120	GW-SB-BR-01-120-140	GW-SB-BR-01-140-160	GW-SB-BR-02-80-90	GW-SB-BR-02-90-100	GW-SB-BR-02-100-108.5	GW-SB-BR-02-110-120	GW-SB-BR-02-120-140
Analyte	**CAS**	**Units**												
Tri(2-Ethylhexyl) Trimellitate	3319-31-1	ug/l												
Tributyl acetylcitrate	77-90-7	ug/l												
Triethylene Glycol	112-27-6	ug/l												
Trimethyl Naphthalene; 2,3,6-	829-26-5	ug/l					12 NJ				7.3 NJ	6.3 NJ		
Triphenylphosphine Oxide	791-28-6	ug/l												
Unknown-01	UNKNOWN-01	ug/l	2.3 J	2.2 J		51 NJ	4 BJ	2.3 NJ	2.7 J	29 DNJ	11 J	6.3 NJ		
Unknown-02	UNKNOWN-02	ug/l	5.6 J	3.1 NJ		9.5 NJ	7 J		2.2 NJ	33 DJ	23 DNJ			
Unknown-03	UNKNOWN-03	ug/l		2.5 NJ		14 NJ	11 NJ			23 DNJ				
Unknown-04	UNKNOWN-04	ug/l				27 J								
Unknown-05	UNKNOWN-05	ug/l				22 NJ								
Unknown-06	UNKNOWN-06	ug/l												
Unknown-07	UNKNOWN-07	ug/l												
Unknown-08	UNKNOWN-08	ug/l												
Unknown-09	UNKNOWN-09	ug/l												
Unknown-10	UNKNOWN-10	ug/l												
Unknown-11	UNKNOWN-11	ug/l												
Unknown-12	UNKNOWN-12	ug/l												
Unknown-13	UNKNOWN-13	ug/l												
Unknown-14	UNKNOWN-14	ug/l												
Unknown-15	UNKNOWN-15	ug/l												
Unknown-16	UNKNOWN-16	ug/l												
Unknown-17	UNKNOWN-17	ug/l												
Unknown-18	UNKNOWN-18	ug/l												
Unknown-19	UNKNOWN-19	ug/l												
Unknown-20	UNKNOWN-20	ug/l												
Unknown-21	UNKNOWN-21	ug/l												
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l						7.3			5.5			
Total Petroleum Hydrocarbons	TPH	mg/l									2.16 J			

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-02	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05
Start Depth (ft):			140	90	100	110	120	140	150	120	130	140	90
Sample:			GW-SB-BR-02-140-160	GW-SB-BR-03-90-100	GW-SB-BR-03-100-110	GW-SB-BR-03-110-120	GW-SB-BR-03-120-140	GW-SB-BR-03-140-150	GW-SB-BR-03-150-160	GW-SB-BR-04-120-130	GW-SB-BR-04-130-140	GW-SB-BR-04-140-160	GW-SB-BR-05-90-100
Analyte	**CAS**	**Units**											
Total BTEX			***1.20***	***2.40***	***7.20***	***16.00***	***0.00***	***0.30***	***1.92***	***2.54***	***0.00***	***2.93***	***7.10***
1,1,1-Trichloroethane	71-55-6	ug/l	23	19	3.8	8.5	7.7	0.86 J	6.7	10	5	0.88	12
1,1-Dichloroethane	75-34-3	ug/l	18	15	3.3	8	6.7	0.86 J	6.6	9.2	5	2.4	9.3
1,1-Dichloroethene	75-35-4	ug/l		7.3		3.7	2.8		2.5				
1,2,4-Trimethylbenzene	95-63-6	ug/l							0.42 J	0.12 J		0.34 J	1.1
1,2-Dichloroethane	107-06-2	ug/l											0.62 J
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l							0.24 J			0.17 J	0.54 J
2-Butanone	78-93-3	ug/l											
Acetone	67-64-1	ug/l				6.9 J							
Benzene	71-43-2	ug/l								0.34 J			
Carbon Disulfide	75-15-0	ug/l											
Chloroform	67-66-3	ug/l		1									
Chloromethane	74-87-3	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l	100	170	19	49	33	3	31	35	20	2.4	51
Dibromochloromethane	124-48-1	ug/l			1.5								
Ethylbenzene	100-41-4	ug/l										0.44 J	
Isopropylbenzene	98-82-8	ug/l										0.07 J	
M, P Xylenes	179601-23-1	ug/l							0.22 J			0.78	
Methyl tert-Butyl Ether	1634-04-4	ug/l											
Methylene Chloride	75-09-2	ug/l				1.5							1.3
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l							0.2 J			0.61	
Styrene	100-42-5	ug/l											
Toluene	108-88-3	ug/l	1.2 J	2.4	7.2	16		0.3 J	1.5	2.2		1.1	7.1
trans-1,2-Dichloroethene	156-60-5	ug/l		0.22 J	0.26 J	0.42 J							
Trichloroethene (TCE)	79-01-6	ug/l	22	18	4.2	8.2	5.8	0.26 J	6	16	7.7	0.74	12
Vinyl Chloride	75-01-4	ug/l							1.1	0.7 J			
Total SVOCs			***48.30***	***38.70***	***24.80***	***32.90***	***265.90***	***1.40***	***81.10***	***54.40***	***20.50***	***171.90***	***190.20***
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	18	22	3.8 J	10	8.8	1.4 J	6.8	12	13	7.3	11
1-methylnaphthalene	90-12-0	ug/l					4.9 J		6.4	3.5 J		16	10
2-Methylnaphthalene	91-57-6	ug/l	2.7 J						5.7	7.5		5.5	19
4-Chloroaniline	106-47-8	ug/l										11	
4-Methylphenol (P-Cresol)	106-44-5	ug/l											
4-Nitroaniline	100-01-6	ug/l											
Acenaphthene	83-32-9	ug/l	3.4 J	4 J		5.6 J	17		8.8	5.8		26	17
Acenaphthylene	208-96-8	ug/l											
Anthracene	120-12-7	ug/l					4.2 J						
Benzo(a)anthracene	56-55-3	ug/l					9.8						
Benzo(a)pyrene	50-32-8	ug/l					4.6 J						
Benzo(b)fluoranthene	205-99-2	ug/l					6.3						
Benzo(g,h,i)perylene	191-24-2	ug/l											
Benzo(k)fluoranthene	207-08-9	ug/l											
Biphenyl (Diphenyl)	92-52-4	ug/l					3.8 J					5.3	3.6 J
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l			11								12
Carbazole	86-74-8	ug/l										3.8 J	
Chrysene	218-01-9	ug/l					4.5 J						
Dibenz(a,h)anthracene	53-70-3	ug/l											
Dibenzofuran	132-64-9	ug/l		2.9 J			16		6.9	4.5 J		17	11
Fluoranthene	206-44-0	ug/l	6.7				49					6	7.2
Fluorene	86-73-7	ug/l	3 J	2.7 J			22		6.5	4.8 J		15	11
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l											
Naphthalene	91-20-3	ug/l	2.9 J	7.1	10	8.5 J	6		28	6.9		35	61
N-Nitrosodiphenylamine	86-30-6	ug/l											
Phenanthrene	85-01-8	ug/l	7.4			8.8 J	76		12	9.4	7.5	24	23
Phenol	108-95-2	ug/l											
Pyrene	129-00-0	ug/l	4.2 J				33						4.4 J
Total VOC TICs			***10.00***	***20.58***	***8.56***	***26.27***	***5.36***	***4.12***	***7.84***	***18.16***	***10.23***	***15.63***	***47.70***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/l											
(E)-Tetradec-2-enal	51534-36-2	ug/l		0.58 NDJ									
1,2,3,4-Tetramethylbenzene	488-23-3	ug/l											
1,2,3,5-Tetramethylbenzene	527-53-7	ug/l											
1,2,3-Trimethyl Benzene	526-73-8	ug/l											
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l											
1,2-Dimethylindan	17057-82-8	ug/l											
1,3,8-P-Menthatriene	21195-59-5	ug/l											
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene	76089-59-3	ug/l											
1,3-Dimethylnaphthalene	575-41-7	ug/l											
1,4-Dihydro-1,4-Methanonaphthalene	4453-90-1	ug/l							1.2 NDJ				
1,4-DIHYDRONAPHTHALENE	612-17-9	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l											
1,7-Dimethyl Naphthalene	575-37-1	ug/l											
1-CYCLOPROP-2-EN-1-YL-2-METHYLBENZENE	65051-83-4	ug/l											
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/l							0.22 NDJ				
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l											
1-Ethyl Naphthalene	1127-76-0	ug/l										0.1 NJ	
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/l											
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l										0.1 NJ	
1-ethylidene- Indene	2471-83-2	ug/l					0.56 NDJ						
1-Ethyltoluene	611-14-3	ug/l										0.12 NJ	
1-Ethynyl-4-Methylbenzene	766-97-2	ug/l					0.1 NDJ						
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l										0.4 NJ	
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/l											
1h-Indene, 2,3-Dihydro-2,2-Dimethyl-	824-63-5	ug/l											
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l							0.16 NDJ				
1-Methyl-1-Cyclohexene	1587-04-8	ug/l											
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/l											
1-Methylindan	767-58-8	ug/l										0.39 NJ	
1-Methylindene	767-59-9	ug/l											
1-methylnaphthalene	90-12-0	ug/l		0.38 NDJ									
1-Pentenylbenzene	824-90-8	ug/l											
1-Phenyl-1-Propyne	673-32-5	ug/l											
2-(2-Hydroxyphenyl)buta-1,3...	38865-47-3	ug/l											
2,3-Benzofuran	271-89-6	ug/l										0.14 NJ	
2,3-Dihydro-1h-Indene	496-11-7	ug/l					0.28 NDJ		1.2 NDJ			4.2 NJ	4.1 NDJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l										0.16 NJ	
2,6-Dimethyl-Napthalene	581-42-0	ug/l										0.15 NJ	
2,7-Dimethyl Naphthalene	582-16-1	ug/l											

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-02	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05
Start Depth (ft):			140	90	100	110	120	140	120	130	140	90
Sample:			GW-SB-BR-02-140-160	GW-SB-BR-03-90-100	GW-SB-BR-03-100-110	GW-SB-BR-03-110-120	GW-SB-BR-03-120-140	GW-SB-BR-03-140-150	GW-SB-BR-03-150-160	GW-SB-BR-04-120-130	GW-SB-BR-04-130-140	GW-SB-BR-04-140-160	GW-SB-BR-05-90-100
Analyte	**CAS**	**Units**											
2a,4a,6a,6b-Tetrahydrocyclo...	6053-74-3	ug/l											
2-Decenal, (Z)-	2497-25-8	ug/l		1.9 NDJ									
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/l											
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/l											
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/l											
2-METHYLBENZOFURAN	4265-25-2	ug/l										0.48 NJ	
2-METHYLINDENE	2177-47-1	ug/l											
2-Methylnaphthalene	91-57-6	ug/l			0.18 NDJ	0.66 NDJ	0.16 NDJ						
2-Octenal, (E)-	2548-87-0	ug/l		0.36 NDJ									
3,5-Dimethyl-1-Ethylbenzene	934-74-7	ug/l											
3a,6-Methano-3aH-indene, 2,...	98640-29-0	ug/l											
3-Hydroxyphenylacetylene	10401-11-3	ug/l											
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/l											
3-phenyl-2-propenal	104-55-2	ug/l											
3-Phenyl-2-propyn-1-ol	1504-58-1	ug/l											
3-Phenylbut-1-ene	934-10-1	ug/l											
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/l											
4-Ethyltoluene	622-96-8	ug/l							0.1 NDJ				
5-Methylbenzimidazole	614-97-1	ug/l											
Azulene	275-51-4	ug/l											
Benzene, (1-methyl-1-propen... (02)	767-99-7	ug/l											
BENZENE, (1-METHYL-1-PROPENYL)-, (E)-	768-00-3	ug/l											
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/l											
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/l											
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/l											
Benzene, 2-Butenyl	1560-06-1	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l											
Benzo[b]thiophene	95-15-8	ug/l											
Benzo[C]Thiophene	270-82-6	ug/l										0.65 NJ	
BENZOCYCLOHEPTATRIENE	264-09-5	ug/l								0.82 NDJ			
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l										0.58 NJ	
Biphenyl (Diphenyl)	92-52-4	ug/l											
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l							0.22 NDJ				
Cymene	99-87-6	ug/l											
Decyl Aldehyde	112-31-2	ug/l											
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l											
Ethyl Acetate	141-78-6	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l											
Furan, 2-pentyl-	3777-69-3	ug/l											
Heptanal	111-71-7	ug/l											1.6 NDJ
Hexanal	66-25-1	ug/l		7 NDJ		5.3 NDJ		1 NDJ					8.6 NDJ
Indene	95-13-6	ug/l							0.56 NDJ			2.5 NJ	1.6 NDJ
M-Cymene	535-77-3	ug/l											
Naphthalene	91-20-3	ug/l			1.3 NDJ	2.3 NDJ	1.3 NDJ						
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/l											
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l											
NAPHTHALENE, 2-ETHENYL-	827-54-3	ug/l										0.28 NJ	
N-Butyraldehyde	123-72-8	ug/l											
Nonanol	124-19-6	ug/l		1.7 NDJ	2.8 NDJ	7.7 NDJ	0.34 NDJ	0.76 NDJ	0.94 NDJ			0.1 NJ	24 NDJ
Octanal	124-13-0	ug/l			1.3 NDJ								4.5 NDJ
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/l										0.13 NJ	
Propylene	115-07-1	ug/l											1.8 NDJ
Total Alkane Tics	E966796	ug/l		1.4 DJ		0.64 DJ				15 DJ	8.4 J	3.9 J	
Unknown-01	UNKNOWN-01	ug/l	1.1 DJ	0.74 DJ	0.28 DJ	1.2 DJ	0.96 DJ	1.4 DJ	0.72 DJ	1.7 DJ	0.55 BJ	0.41 J	1.5 DJ
Unknown-02	UNKNOWN-02	ug/l	1.7 BDJ	1.7 DJ	0.28 DJ	0.78 DJ	0.8 DJ	0.3 DJ	0.86 DJ	0.24 BDJ	0.98 J	0.12 BJ	
Unknown-03	UNKNOWN-03	ug/l	2 DJ	0.42 BDJ	0.36 BDJ	0.4 BDJ	0.36 BDJ	0.32 BDJ	0.28 BDJ	0.24 DJ	0.12 BJ	0.22 NJ	
Unknown-04	UNKNOWN-04	ug/l	2.3 BDJ	0.2 DJ	0.2 BDJ	0.46 DJ	0.16 BDJ	0.12 BDJ	0.14 BDJ	0.16 DJ	0.05 J	0.07 J	
Unknown-05	UNKNOWN-05	ug/l	0.9 BDJ	0.18 DJ	0.54 DJ	0.52 DJ	0.1 DJ	0.22 DJ	0.52 DJ		0.06 J	0.18 J	
Unknown-06	UNKNOWN-06	ug/l	1 DJ	0.6 DJ	0.28 DJ	0.68 DJ	0.14 DJ		0.12 DJ		0.07 J	0.09 J	
Unknown-07	UNKNOWN-07	ug/l	1 DJ	0.82 DJ	0.18 DJ	0.76 DJ	0.1 DJ		0.14 DJ			0.1 J	
Unknown-08	UNKNOWN-08	ug/l		2 DJ	0.12 DJ	1.9 DJ			0.1 DJ			0.06 J	
Unknown-09	UNKNOWN-09	ug/l		0.6 DJ	0.48 DJ	1.2 DJ			0.24 DJ				
Unknown-10	UNKNOWN-10	ug/l			0.26 DJ	0.42 NDJ			0.12 DJ				
Unknown-11	UNKNOWN-11	ug/l				0.7 DJ							
Unknown-12	UNKNOWN-12	ug/l				0.65 DJ							
Unknown-13	UNKNOWN-13	ug/l											
Unknown-14	UNKNOWN-14	ug/l											
Unknown-15	UNKNOWN-15	ug/l											
Unknown-16	UNKNOWN-16	ug/l											
Unknown-17	UNKNOWN-17	ug/l											
Unknown-18	UNKNOWN-18	ug/l											
Total SVOC TICs			3.3	62.6	252.4	0	50.1	87.2	36.6	4.5	222.6	32	255.8
1,1'-BIPHENYL, 2-METHYL-	643-58-3	ug/l											
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/l											
1,1'-METHYLENEBIS-BENZENE	101-81-5	ug/l											
1,2,3-Trimethyl Benzene	526-73-8	ug/l											
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l											
1,3-Dimethylnaphthalene	575-41-7	ug/l											
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/l			9.9 NDJ								2.4 NJ
1,5-Dimethyl Naphthalene	571-61-9	ug/l											
1,6,7-Trimethyl-Napthalene	2245-38-7	ug/l											
1,7-Dimethyl Naphthalene	575-37-1	ug/l											
11h-Benzo[b]Fluorene	243-17-4	ug/l					2.4 NJ						2.8 NJ
12-Hydroxystearic acid	106-14-9	ug/l		22 NJ	48 NDJ			33 NJ	9 NJ				
1-Acenaphthenol	6306-07-6	ug/l											
1-Butenyl-(E)-Benzene	1005-64-7	ug/l											
1-Ethenyl-2-Methyl-Benzene	611-15-4	ug/l											
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l											
1-Ethyl Naphthalene	1127-76-0	ug/l											2.8 NJ
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l											
1-Ethyltoluene	611-14-3	ug/l											
1-Heptadecanol	1454-85-9	ug/l											
1-Hexanol	111-27-3	ug/l											
1H-Indazole, 3-methyl-	1000316-00-2	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l											
1-Iodo-2-Methylundecane	1855-47-6	ug/l											

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GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-02	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05
Start Depth (ft):			140	90	100	110	120	140	150	120	130	140	90
Sample:			GW-SB-BR-02-140-160	GW-SB-BR-03-90-100	GW-SB-BR-03-100-110	GW-SB-BR-03-110-120	GW-SB-BR-03-120-140	GW-SB-BR-03-140-150	GW-SB-BR-03-150-160	GW-SB-BR-04-120-130	GW-SB-BR-04-130-140	GW-SB-BR-04-140-160	GW-SB-BR-05-90-100
Analyte	**CAS**	**Units**											
1-Methyl-3-Propyl-Cyclohexane	3333-13-9	ug/l											
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/l											
1-Phenyl-1-Propyne	673-32-5	ug/l											
2(1H)-Quinolinone, 3-methyl-	2721-59-7	ug/l											
2-(2-Butoxyethoxy)Ethanol	112-34-5	ug/l											
2(3H)-Furanone, 5-hexyldihy...	121644-12-0	ug/l											
2,3-Benzofuran	271-89-6	ug/l											
2,3-Dihydro-1h-Indene	496-11-7	ug/l										8.9 NJ	2.6 NJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l											
2,4-Nonadiyne	63621-15-8	ug/l											
2,5-Dimethyl Phenanthrene	3674-66-6	ug/l					2.7 NJ						
2,7-Dimethyl Naphthalene	582-16-1	ug/l					3 NJ						
2-Chlorocyclohexanol	1561-86-0	ug/l	3.3 BNJ	3.2 BNJ			3.8 BNJ	3.2 BNJ	2.8 BNJ				
2-Ethyl-1-Hexanol	104-76-7	ug/l											
2-Ethylhexanoic Acid	149-57-5	ug/l											
2-METHYLBENZOFURAN	4265-25-2	ug/l											
2-Methylphenylacetylene	766-47-2	ug/l											
2-Phenyl Naphthalene	612-94-2	ug/l					3 NJ						
3-Hydroxyphenylacetylene	10401-11-3	ug/l											
3'-Methyl-[1,1'-biphenyl]-4...	400744-83-4	ug/l											
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											
3-Methylbutanoic Acid	503-74-2	ug/l											
3-Methylphenylacetylene	766-82-5	ug/l											
3-Phenylbut-1-ene	934-10-1	ug/l											
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/l											
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/l					12 NJ						2.5 NJ
4-Methyldibenzofuran	7320-53-8	ug/l					3.9 NJ						
4-Oxononanal	1000314-10-4	ug/l											8.3 NJ
4-PHENYLBENZALDEHYDE	3218-36-8	ug/l					2.4 NJ						
5-Amino-1-naphthol	83-55-6	ug/l											
7H-BENZO[C]CARBAZOLE	205-25-4	ug/l											
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/l								2.3 BNJ			
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Oxoxantho(2,3-G)	84-65-1	ug/l											
9H-Fluoren-3-ol	6344-67-8	ug/l											
9H-Fluorene, 1-methyl-	1730-37-6	ug/l											
9H-Fluorene, 2-methyl-	1430-97-3	ug/l					2.8 NJ						
9H-Fluorene, 9-methyl-	2523-37-7	ug/l											
Anthracene, 9,10-dihydro-	613-31-0	ug/l											
Azelaic Acid	123-99-9	ug/l			4.9 NDJ								
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-YLIDEN	2320-32-3	ug/l											
BENZENE, 1-BUTYNYL-	622-76-4	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l											
Benzeneacetic Acid	103-82-2	ug/l											2.1 NJ
Benzenesulfonamide, N-butyl-	3622-84-2	ug/l											
Benzo(a)fluorene	238-84-6	ug/l											
Benzo(b)thiophene, 2,3-dihydro-	4565-32-6	ug/l											3.1 NJ
Benzo[b]thiophene	95-15-8	ug/l											
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/l											
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/l										6.6 NJ	
Benzo[C]Thiophene	270-82-6	ug/l											
Benzo[e]pyrene	192-97-2	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l											
Benzoic Acid	65-85-0	ug/l										2 NJ	24 NJ
Butyl citrate	77-94-1	ug/l											
Cyclohexene	110-83-8	ug/l											
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l											
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/l											
Decanedioic acid	111-20-6	ug/l		14 NJ	110 NDJ			16 NJ					
Decanoic Acid	334-48-5	ug/l											
Dibenzothiophene (Synfuel)	132-65-0	ug/l					5.2 NJ						
Dichlorocyclohexane; trans-1,2-	822-86-6	ug/l											
Dimantine	124-28-7	ug/l											
Dimethyl Anthracene; 9,10-	781-43-1	ug/l											
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l											
Dodecanoic Acid	143-07-7	ug/l											
Ethenyl-cyclobutane	2597-49-1	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l											
Ethylidenecyclobutane	1528-21-8	ug/l									220 BNJ		
Fluoranthene, 2-Methyl-	33543-31-6	ug/l					2.1 NJ						
Heptanal	111-71-7	ug/l											4 NJ
Heptanoic Acid	111-14-8	ug/l											
Hexadecanoic Acid	57-10-3	ug/l						7.1 NJ					
Hexanal	66-25-1	ug/l											27 NJ
Hexanoic Acid (Dot)	142-62-1	ug/l											
HEXATHIANE	13798-23-7	ug/l											
Indene	95-13-6	ug/l										12 NJ	
Methyl 2,5,8,11,14,17,20-he...	1010366-81-3	ug/l											
Methyl Anthracene; 2-	613-12-7	ug/l											
Methyl Phenanthrene; 2-	2531-84-2	ug/l					4.3 NJ						
Methyl Pyrene	2381-21-7	ug/l											
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/l											
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l											
Naphthalene, 2-(1-methyleth...	2027-17-0	ug/l											
Naphtho[1,2-b]thiophene	234-41-3	ug/l											
Naphtho[2,1-b]thiophene	233-02-3	ug/l											
Nonanoic Acid	112-05-0	ug/l		3.1 NJ	24 NDJ			9.2 NJ					68 NJ
Nonanol	124-19-6	ug/l											28 NJ
Nonanol; 1-	143-08-8	ug/l											3.8 NJ
Octadecanoic Acid	57-11-4	ug/l											
Octanoic Acid	124-07-2	ug/l		2 NJ	16 NDJ			5 NJ	2.9 NJ				23 NJ
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l											
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/l											
Phenanthrene, 9,10-dihydro-	776-35-2	ug/l											
Phenylpropionic Acid; 3-	501-52-0	ug/l											
P-Xylene (1,4-Dimethylbenzene)	106-42-3	ug/l											
Quinoline, 2-Methyl-	91-63-4	ug/l											
Tetradecanoic Acid	544-63-8	ug/l											
Toluene	108-88-3	ug/l											

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J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-02	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-03	SB-BR-04	SB-BR-04	SB-BR-04	SB-BR-05
			Start Depth (ft):	140	90	100	110	120	140	150	120	130	140	90
			Sample:	GW-SB-BR-02-140-160	GW-SB-BR-03-90-100	GW-SB-BR-03-100-110	GW-SB-BR-03-110-120	GW-SB-BR-03-120-140	GW-SB-BR-03-140-150	GW-SB-BR-03-150-160	GW-SB-BR-04-120-130	GW-SB-BR-04-130-140	GW-SB-BR-04-140-160	GW-SB-BR-05-90-100
Analyte	**CAS**	**Units**												
Tri(2-Ethylhexyl) Trimellitate	3319-31-1	ug/l			15 NDJ									
Tributyl acetylcitrate	77-90-7	ug/l							4.4 NJ					
Triethylene Glycol	112-27-6	ug/l												
Trimethyl Naphthalene; 2,3,6-	829-26-5	ug/l												
Triphenylphosphine Oxide	791-28-6	ug/l										2.6 NJ	2.5 NJ	
Unknown-01	UNKNOWN-01	ug/l		6.5 J	9.4 DJ		2.5 J	3.5 J	2.8 J	2.2 J				8.4 J
Unknown-02	UNKNOWN-02	ug/l		2.5 BJ	5.2 DJ			2.4 J	5.8 J					2.7 J
Unknown-03	UNKNOWN-03	ug/l		9.3 J	10 DJ			3.4 J	6.7 J					12 J
Unknown-04	UNKNOWN-04	ug/l							6.6 J					4.9 J
Unknown-05	UNKNOWN-05	ug/l												2.3 J
Unknown-06	UNKNOWN-06	ug/l												12 J
Unknown-07	UNKNOWN-07	ug/l												2.5 J
Unknown-08	UNKNOWN-08	ug/l												2.7 J
Unknown-09	UNKNOWN-09	ug/l												3.9 NJ
Unknown-10	UNKNOWN-10	ug/l												
Unknown-11	UNKNOWN-11	ug/l												
Unknown-12	UNKNOWN-12	ug/l												
Unknown-13	UNKNOWN-13	ug/l												
Unknown-14	UNKNOWN-14	ug/l												
Unknown-15	UNKNOWN-15	ug/l												
Unknown-16	UNKNOWN-16	ug/l												
Unknown-17	UNKNOWN-17	ug/l												
Unknown-18	UNKNOWN-18	ug/l												
Unknown-19	UNKNOWN-19	ug/l												
Unknown-20	UNKNOWN-20	ug/l												
Unknown-21	UNKNOWN-21	ug/l												
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l												
Total Petroleum Hydrocarbons	TPH	mg/l												

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07
Start Depth (ft):			100	120	130	70	70	90	100	120	140	90	100
Sample:			GW-SB-BR-05-100-120	GW-SB-BR-05-120-130	GW-SB-BR-05-130-140	GW-SB-BR-06-70-90	GW-SB-BR-06-70-90-1	GW-SB-BR-06-90-100	GW-SB-BR-06-100-120	GW-SB-BR-06-120-140	GW-SB-BR-06-140-160	GW-SB-BR-07-90-100	GW-SB-BR-07-100-120
Analyte	**CAS**	**Units**											
Total BTEX			***6.10***	***25.50***	***4.60***	***5.50***	***5.20***	***13.00***	***53.00***	***16.00***	***16.00***	***6.40***	***4.38***
1,1,1-Trichloroethane	71-55-6	ug/l	20		17							29	27
1,1-Dichloroethane	75-34-3	ug/l	14	1.3	13							23	22
1,1-Dichloroethene	75-35-4	ug/l			6.6							12	11
1,2,4-Trimethylbenzene	95-63-6	ug/l	2.3	7.9	0.48 J							0.96 J	3
1,2-Dichloroethane	107-06-2	ug/l			0.8 J							1.4	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	1	3.9								0.58 J	1.9
2-Butanone	78-93-3	ug/l											
Acetone	67-64-1	ug/l											
Benzene	71-43-2	ug/l											
Carbon Disulfide	75-15-0	ug/l								0.4 J	0.58 J		
Chloroform	67-66-3	ug/l											
Chloromethane	74-87-3	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l	71	3.3	68	0.7 J	0.7 J					120	120
Dibromochloromethane	124-48-1	ug/l				0.4 J	0.48 J						
Ethylbenzene	100-41-4	ug/l	0.6 J	2.1									
Isopropylbenzene	98-82-8	ug/l		0.34 J									
M, P Xylenes	179601-23-1	ug/l	2.3	8.4									0.68 J
Methyl tert-Butyl Ether	1634-04-4	ug/l								0.68 J			
Methylene Chloride	75-09-2	ug/l											
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	1.1	4									0.4 J
Styrene	100-42-5	ug/l				0.22 J	0.28 J						
Toluene	108-88-3	ug/l	2.1	11	4.6	5.5	5.2	13	53	16	16	6.4	3.3
trans-1,2-Dichloroethene	156-60-5	ug/l											
Trichloroethene (TCE)	79-01-6	ug/l	18	0.34 J	16	0.66 J	0.64 J					29	28
Vinyl Chloride	75-01-4	ug/l											
Total SVOCs			***406.80***	***141.70***	***88.80***	***7.90***	***0.00***	***4.81***	***31.90***	***8.00***	***6.30***	***236.90***	***840.30***
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	2.1	15	16			0.81 J	1.1 J			24	22
1-methylnaphthalene	90-12-0	ug/l	42	8.7	5 J				2.5 J			17	55
2-Methylnaphthalene	91-57-6	ug/l	61	15	6.1				4.3 J			16	50
4-Chloroaniline	106-47-8	ug/l											
4-Methylphenol (P-Cresol)	106-44-5	ug/l											
4-Nitroaniline	100-01-6	ug/l											
Acenaphthene	83-32-9	ug/l	47	9.8	8				3.4 J			33	120
Acenaphthylene	208-96-8	ug/l											3.8 J
Anthracene	120-12-7	ug/l	3.1 J										10
Benzo(a)anthracene	56-55-3	ug/l	3.3 J										8.5
Benzo(a)pyrene	50-32-8	ug/l											3.2 J
Benzo(b)fluoranthene	205-99-2	ug/l											4.7 J
Benzo(g,h,i)perylene	191-24-2	ug/l											
Benzo(k)fluoranthene	207-08-9	ug/l											
Biphenyl (Diphenyl)	92-52-4	ug/l	11	2.5 J								8.3	30
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l				7.9							
Carbazole	86-74-8	ug/l	7.3 J										6.8 J
Chrysene	218-01-9	ug/l											5.3
Dibenz(a,h)anthracene	53-70-3	ug/l											
Dibenzofuran	132-64-9	ug/l	27	5.9	5.4							24	79
Fluoranthene	206-44-0	ug/l	28		3.7 J				3.9 J			16	58
Fluorene	86-73-7	ug/l	27	4.2 J	5.6							24	79
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l											
Naphthalene	91-20-3	ug/l	74	76	28				10			28	99
N-Nitrosodiphenylamine	86-30-6	ug/l											
Phenanthrene	85-01-8	ug/l	57	4.6 J	11			4 J	6.7	8	6.3	37	170
Phenol	108-95-2	ug/l											
Pyrene	129-00-0	ug/l	17									9.6	36
Total VOC TICs			***24.52***	***71.98***	***4.30***	***9.80***	***9.30***	***0.00***	***0.00***	***2.40***	***33.50***	***6.20***	***35.90***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/l		0.28 NDJ									
(E)-Tetradec-2-enal	51534-36-2	ug/l											
1,2,3,4-Tetramethylbenzene	488-23-3	ug/l											
1,2,3,5-Tetramethylbenzene	527-53-7	ug/l											
1,2,3-Trimethyl Benzene	526-73-8	ug/l											
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l											2 NDJ
1,2-Dimethylindan	17057-82-8	ug/l											
1,3,8-P-Menthatriene	21195-59-5	ug/l											
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene	76089-59-3	ug/l											
1,3-Dimethylnaphthalene	575-41-7	ug/l		0.4 NDJ									
1,4-Dihydro-1,4-Methanonaphthalene	4453-90-1	ug/l											
1,4-DIHYDRONAPHTHALENE	612-17-9	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l											
1,7-Dimethyl Naphthalene	575-37-1	ug/l											
1-CYCLOPROP-2-EN-1-YL-2-METHYLBENZENE	65051-83-4	ug/l											
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/l	0.54 NDJ										
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l		1.8 NDJ									
1-Ethyl Naphthalene	1127-76-0	ug/l		0.28 NDJ									
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/l											
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l	0.98 NDJ	0.64 NDJ									
1-ethylidene- Indene	2471-83-2	ug/l											
1-Ethyltoluene	611-14-3	ug/l		3.3 NDJ									1.7 NDJ
1-Ethynyl-4-Methylbenzene	766-97-2	ug/l											
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l										1.1 NDJ	4 NDJ
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/l											
1h-Indene, 2,3-Dihydro-2,2-Dimethyl-	824-63-5	ug/l											
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l	0.62 NDJ										3 NDJ
1-Methyl-1-Cyclohexene	1587-04-8	ug/l											
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/l											
1-Methylindan	767-58-8	ug/l		2 NDJ									
1-Methylindene	767-59-9	ug/l											
1-methylnaphthalene	90-12-0	ug/l											
1-Pentenylbenzene	824-90-8	ug/l											
1-Phenyl-1-Propyne	673-32-5	ug/l											
2-(2-Hydroxyphenyl)buta-1,3...	38865-47-3	ug/l											
2,3-Benzofuran	271-89-6	ug/l	0.44 NDJ	1.9 NDJ									
2,3-Dihydro-1h-Indene	496-11-7	ug/l	8.9 NDJ	28 NDJ	1.4 NDJ							2.1 NDJ	7.5 NDJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l											
2,6-Dimethyl-Napthalene	581-42-0	ug/l		0.42 NDJ									
2,7-Dimethyl Naphthalene	582-16-1	ug/l											

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07
Start Depth (ft):			100	120	130	70	70	90	100	120	140	90	100
Sample:			GW-SB-BR-05-100-120	GW-SB-BR-05-120-130	GW-SB-BR-05-130-140	GW-SB-BR-06-70-90	GW-SB-BR-06-70-90-1	GW-SB-BR-06-90-100	GW-SB-BR-06-100-120	GW-SB-BR-06-120-140	GW-SB-BR-06-140-160	GW-SB-BR-07-90-100	GW-SB-BR-07-100-120
Analyte	**CAS**	**Units**											
2a,4a,6a,6b-Tetrahydrocyclo...	6053-74-3	ug/l											
2-Decenal, (Z)-	2497-25-8	ug/l											
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/l											
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/l											1.7 NDJ
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/l											
2-METHYLBENZOFURAN	4265-25-2	ug/l											
2-METHYLINDENE	2177-47-1	ug/l		0.64 NDJ									
2-Methylnaphthalene	91-57-6	ug/l											
2-Octenal, (E)-	2548-87-0	ug/l											
3,5-Dimethyl-1-Ethylbenzene	934-74-7	ug/l											
3a,6-Methano-3aH-indene, 2,...	98640-29-0	ug/l											
3-Hydroxyphenylacetylene	10401-11-3	ug/l											
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/l											1.4 NDJ
3-phenyl-2-propenal	104-55-2	ug/l											
3-Phenyl-2-propyn-1-ol	1504-58-1	ug/l											
3-Phenylbut-1-ene	934-10-1	ug/l											
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/l											
4-Ethyltoluene	622-96-8	ug/l											
5-Methylbenzimidazole	614-97-1	ug/l											
Azulene	275-51-4	ug/l											
Benzene, (1-methyl-1-propen... (02)	767-99-7	ug/l											
BENZENE, (1-METHYL-1-PROPENYL)-, (E)-	768-00-3	ug/l											
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/l											3.2 NDJ
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/l											
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/l	0.2 NDJ	0.8 NDJ									
Benzene, 2-Butenyl	1560-06-1	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l	0.44 NDJ	2.6 NDJ									
Benzo[b]thiophene	95-15-8	ug/l											
Benzo[C]Thiophene	270-82-6	ug/l	0.66 NDJ	2.9 NDJ									1.4 NDJ
BENZOCYCLOHEPTATRIENE	264-09-5	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l	0.56 NDJ	2.3 NDJ									
Biphenyl (Diphenyl)	92-52-4	ug/l											
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l											
Cymene	99-87-6	ug/l											
Decyl Aldehyde	112-31-2	ug/l											
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l											
Ethyl Acetate	141-78-6	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l											
Furan, 2-pentyl-	3777-69-3	ug/l											
Heptanal	111-71-7	ug/l											
Hexanal	66-25-1	ug/l											
Indene	95-13-6	ug/l	4.6 NDJ	17 NDJ									2 NDJ
M-Cymene	535-77-3	ug/l											
Naphthalene	91-20-3	ug/l											
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/l	0.52 NDJ	2.1 NDJ									2 NDJ
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l											
NAPHTHALENE, 2-ETHENYL-	827-54-3	ug/l											
N-Butyraldehyde	123-72-8	ug/l											
Nonanol	124-19-6	ug/l	1.7 NDJ			5.9 NDJ	5.8 NDJ			1.2 NDJ	1.1 NDJ		
Octanal	124-13-0	ug/l				1.2 NDJ	1.3 NDJ						
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/l											1.4 NDJ
Propylene	115-07-1	ug/l				2.7 NDJ	2.2 NDJ						
Total Alkane Tics	E966796	ug/l	0.86 DJ	0.76 DJ									
Unknown-01	UNKNOWN-01	ug/l	1.7 DJ	0.38 BDJ	1 DJ					1.2 DJ	1.5 DJ	3 DJ	2.8 DJ
Unknown-02	UNKNOWN-02	ug/l	0.24 BDJ	0.58 DJ	1.9 DJ						3 DJ		1.8 DJ
Unknown-03	UNKNOWN-03	ug/l	0.14 DJ	0.9 DJ							3.9 DJ		
Unknown-04	UNKNOWN-04	ug/l	0.16 DJ	1.4 NDJ							24 DJ		
Unknown-05	UNKNOWN-05	ug/l	0.44 DJ	0.28 DJ									
Unknown-06	UNKNOWN-06	ug/l	0.14 NDJ	0.32 DJ									
Unknown-07	UNKNOWN-07	ug/l	0.2 DJ										
Unknown-08	UNKNOWN-08	ug/l	0.34 DJ										
Unknown-09	UNKNOWN-09	ug/l	0.14 DJ										
Unknown-10	UNKNOWN-10	ug/l											
Unknown-11	UNKNOWN-11	ug/l											
Unknown-12	UNKNOWN-12	ug/l											
Unknown-13	UNKNOWN-13	ug/l											
Unknown-14	UNKNOWN-14	ug/l											
Unknown-15	UNKNOWN-15	ug/l											
Unknown-16	UNKNOWN-16	ug/l											
Unknown-17	UNKNOWN-17	ug/l											
Unknown-18	UNKNOWN-18	ug/l											
Total SVOC TICs			182.3	31.3	0	87.3	495.6	453.8	442.7	186.7	250.3	25.8	175.6
1,1'-BIPHENYL, 2-METHYL-	643-58-3	ug/l											
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/l											6.1 NJ
1,1'-METHYLENEBIS-BENZENE	101-81-5	ug/l											
1,2,3-Trimethyl Benzene	526-73-8	ug/l	2.8 NJ	2.3 NJ									
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l											
1,3-Dimethylnaphthalene	575-41-7	ug/l											
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l											
1,6,7-Trimethyl-Napthalene	2245-38-7	ug/l											
1,7-Dimethyl Naphthalene	575-37-1	ug/l											
11h-Benzo[b]Fluorene	243-17-4	ug/l											3.9 NJ
12-Hydroxystearic acid	106-14-9	ug/l											
1-Acenaphthenol	6306-07-6	ug/l											2.6 NJ
1-Butenyl-(E)-Benzene	1005-64-7	ug/l											
1-Ethenyl-2-Methyl-Benzene	611-15-4	ug/l											
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l	3.8 NJ										
1-Ethyl Naphthalene	1127-76-0	ug/l										2 NJ	
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l											
1-Ethyltoluene	611-14-3	ug/l	2.5 NJ										
1-Heptadecanol	1454-85-9	ug/l											
1-Hexanol	111-27-3	ug/l											
1H-Indazole, 3-methyl-	1000316-00-2	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l											
1-Iodo-2-Methylundecane	1855-47-6	ug/l											

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N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07
			Start Depth (ft):	100	120	130	70	70	90	100	120	140	90	100
			Sample:	GW-SB-BR-05-100-120	GW-SB-BR-05-120-130	GW-SB-BR-05-130-140	GW-SB-BR-06-70-90	GW-SB-BR-06-70-90-1	GW-SB-BR-06-90-100	GW-SB-BR-06-100-120	GW-SB-BR-06-120-140	GW-SB-BR-06-140-160	GW-SB-BR-07-90-100	GW-SB-BR-07-100-120
Analyte	**CAS**	**Units**												
1-Methyl-3-Propyl-Cyclohexane	3333-13-9	ug/l												
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/l												
1-Phenyl-1-Propyne	673-32-5	ug/l	54 NJ											
2(1H)-Quinolinone, 3-methyl-	2721-59-7	ug/l												
2-(2-Butoxyethoxy)Ethanol	112-34-5	ug/l												
2(3H)-Furanone, 5-hexyldihy...	121644-12-0	ug/l												
2,3-Benzofuran	271-89-6	ug/l	5.8 NJ											
2,3-Dihydro-1h-Indene	496-11-7	ug/l	34 NJ	8.6 NJ										3.3 NJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l	2.3 NJ											6.3 NJ
2,4-Nonadiyne	63621-15-8	ug/l												
2,5-Dimethyl Phenanthrene	3674-66-6	ug/l												5.4 NJ
2,7-Dimethyl Naphthalene	582-16-1	ug/l											4.7 NJ	19 NJ
2-Chlorocyclohexanol	1561-86-0	ug/l	2.8 NBJ	2.7 BNJ					2.3 BNJ	2.9 BNJ	2.6 BNJ	2.5 BNJ	2.3 NJ	
2-Ethyl-1-Hexanol	104-76-7	ug/l												
2-Ethylhexanoic Acid	149-57-5	ug/l												
2-METHYLBENZOFURAN	4265-25-2	ug/l	3 NJ											
2-Methylphenylacetylene	766-47-2	ug/l												
2-Phenyl Naphthalene	612-94-2	ug/l												5.6 NJ
3-Hydroxyphenylacetylene	10401-11-3	ug/l												
3'-Methyl-[1,1'-biphenyl]-4...	400744-83-4	ug/l												
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l												
3-Methylbutanoic Acid	503-74-2	ug/l												
3-Methylphenylacetylene	766-82-5	ug/l												
3-Phenylbut-1-ene	934-10-1	ug/l												
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/l												2.9 NJ
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/l	8.1 NJ										5.4 NJ	21 NJ
4-Methyldibenzofuran	7320-53-8	ug/l	3.2 NJ										3.3 NJ	13 NJ
4-Oxononanal	1000314-10-4	ug/l												
4-PHENYLBENZALDEHYDE	3218-36-8	ug/l												
5-Amino-1-naphthol	83-55-6	ug/l												
7H-BENZO[C]CARBAZOLE	205-25-4	ug/l												3.4 NJ
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/l												
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Oxoxantho(2,3-G)	84-65-1	ug/l												
9H-Fluoren-3-ol	6344-67-8	ug/l											2.5 NJ	
9H-Fluorene, 1-methyl-	1730-37-6	ug/l												7.5 NJ
9H-Fluorene, 2-methyl-	1430-97-3	ug/l												
9H-Fluorene, 9-methyl-	2523-37-7	ug/l												
Anthracene, 9,10-dihydro-	613-31-0	ug/l												
Azelaic Acid	123-99-9	ug/l					4.1 NJ	4.3 NJ						
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-YLIDEN	2320-32-3	ug/l												3.2 NJ
BENZENE, 1-BUTYNYL-	622-76-4	ug/l												
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l												4 NJ
Benzeneacetic Acid	103-82-2	ug/l												
Benzenesulfonamide, N-butyl-	3622-84-2	ug/l							3.2 NJ					
Benzo(a)fluorene	238-84-6	ug/l												
Benzo(b)thiophene, 2,3-dihydro-	4565-32-6	ug/l												
Benzo[b]thiophene	95-15-8	ug/l												5.4 NJ
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/l												
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/l												
Benzo[C]Thiophene	270-82-6	ug/l	17 NJ	4.1 NJ										
Benzo[e]pyrene	192-97-2	ug/l												
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l	5.9 NJ											
Benzoic Acid	65-85-0	ug/l												
Butyl citrate	77-94-1	ug/l		2.6 NJ			13 NJ	15 NJ	3.9 NJ		3 NJ			
Cyclohexene	110-83-8	ug/l												
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l												
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/l												
Decanedioic acid	111-20-6	ug/l					22 NJ	23 NJ	18 NJ	2.7 NJ	37 NJ	29 NJ		
Decanoic Acid	334-48-5	ug/l								2.6 NJ				
Dibenzothiophene (Synfuel)	132-65-0	ug/l	4.7 NJ										3.5 NJ	14 NJ
Dichlorocyclohexane; trans-1,2-	822-86-6	ug/l												3 NJ
Dimantine	124-28-7	ug/l												
Dimethyl Anthracene; 9,10-	781-43-1	ug/l												
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l												
Dodecanoic Acid	143-07-7	ug/l												
Ethenyl-cyclobutane	2597-49-1	ug/l												
Ethyl Naphthalene; 2-	939-27-5	ug/l												
Ethylidenecyclobutane	1528-21-8	ug/l						260 NJ	180 NJ					
Fluoranthene, 2-Methyl-	33543-31-6	ug/l												
Heptanal	111-71-7	ug/l												
Heptanoic Acid	111-14-8	ug/l												
Hexadecanoic Acid	57-10-3	ug/l							22 NJ	9 NJ	12 NJ	19 NJ		
Hexanal	66-25-1	ug/l					2.5 NJ	2.7 NJ						
Hexanoic Acid (Dot)	142-62-1	ug/l					11 NJ	14 NJ	6.2 NJ	15 NJ	8.4 NJ	9.9 NJ		
HEXATHIANE	13798-23-7	ug/l												
Indene	95-13-6	ug/l		11 NJ										3.5 NJ
Methyl 2,5,8,11,14,17,20-he...	1010366-81-3	ug/l												
Methyl Anthracene; 2-	613-12-7	ug/l												9.4 NJ
Methyl Phenanthrene; 2-	2531-84-2	ug/l											2.1 NJ	
Methyl Pyrene	2381-21-7	ug/l												
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/l	3.7 NJ											
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l	6.2 NJ											
Naphthalene, 2-(1-methyleth...	2027-17-0	ug/l												2.5 NJ
Naphtho[1,2-b]thiophene	234-41-3	ug/l												
Naphtho[2,1-b]thiophene	233-02-3	ug/l												
Nonanoic Acid	112-05-0	ug/l					17 NJ	20 NJ	15 NJ	14 NJ	20 NJ	16 NJ		
Nonanol	124-19-6	ug/l					3.3 NJ	3.5 NJ						
Nonanol; 1-	143-08-8	ug/l												
Octadecanoic Acid	57-11-4	ug/l												
Octanoic Acid	124-07-2	ug/l					7.9 NJ	10 NJ	9.7 NJ	23 NJ	14 NJ	11 NJ		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l												
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/l												
Phenanthrene, 9,10-dihydro-	776-35-2	ug/l												2.7 NJ
Phenylpropionic Acid; 3-	501-52-0	ug/l												
P-Xylene (1,4-Dimethylbenzene)	106-42-3	ug/l												
Quinoline, 2-Methyl-	91-63-4	ug/l												
Tetradecanoic Acid	544-63-8	ug/l							2.7 NJ					
Toluene	108-88-3	ug/l												

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-05	SB-BR-05	SB-BR-05	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-06	SB-BR-07	SB-BR-07
			Start Depth (ft):	100	120	130	70	70	90	100	120	140	90	100
			Sample:	GW-SB-BR-05-100-120	GW-SB-BR-05-120-130	GW-SB-BR-05-130-140	GW-SB-BR-06-70-90	GW-SB-BR-06-70-90-1	GW-SB-BR-06-90-100	GW-SB-BR-06-100-120	GW-SB-BR-06-120-140	GW-SB-BR-06-140-160	GW-SB-BR-07-90-100	GW-SB-BR-07-100-120
Analyte	**CAS**	**Units**												
Tri(2-Ethylhexyl) Trimellitate	3319-31-1	ug/l												
Tributyl acetylcitrate	77-90-7	ug/l												
Triethylene Glycol	112-27-6	ug/l												
Trimethyl Naphthalene; 2,3,6-	829-26-5	ug/l												
Triphenylphosphine Oxide	791-28-6	ug/l												
Unknown-01	UNKNOWN-01	ug/l	8.2 NJ			2.6 J	2.3 J	11 J	31 J	6.7 J	9.4 J		6 J	
Unknown-02	UNKNOWN-02	ug/l	6.1 J			3.9 J	2.8 J	2.6 J	3.8 J	65 J	4.4 J		3.9 NJ	
Unknown-03	UNKNOWN-03	ug/l	2.7 NJ				36 J	8.3 J	11 J	18 J	13 J		9.3 NJ	
Unknown-04	UNKNOWN-04	ug/l	5.5 J				53 J	5 J	32 J		6.1 J		3.1 J	
Unknown-05	UNKNOWN-05	ug/l					49 J	51 J	12 J		55 J		2.7 J	
Unknown-06	UNKNOWN-06	ug/l						55 J	110 J		23 J		2.9 NJ	
Unknown-07	UNKNOWN-07	ug/l						17 J	2.2 J		52 J			
Unknown-08	UNKNOWN-08	ug/l						4.9 J	93 J					
Unknown-09	UNKNOWN-09	ug/l						36 J	4.5 J					
Unknown-10	UNKNOWN-10	ug/l							10 J					
Unknown-11	UNKNOWN-11	ug/l							64 J					
Unknown-12	UNKNOWN-12	ug/l												
Unknown-13	UNKNOWN-13	ug/l												
Unknown-14	UNKNOWN-14	ug/l												
Unknown-15	UNKNOWN-15	ug/l												
Unknown-16	UNKNOWN-16	ug/l												
Unknown-17	UNKNOWN-17	ug/l												
Unknown-18	UNKNOWN-18	ug/l												
Unknown-19	UNKNOWN-19	ug/l												
Unknown-20	UNKNOWN-20	ug/l												
Unknown-21	UNKNOWN-21	ug/l												
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l												
Total Petroleum Hydrocarbons	TPH	mg/l												

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12
Start Depth (ft):			120	105	115	125	135	135	140	110	120	140	115
Sample:			GW-SB-BR-07-120-140	GW-SB-BR-10-105-115	GW-SB-BR-10-115-125	GW-SB-BR-10-125-135	GW-SB-BR-10-135-140	GW-SB-BR-10-135-140-1	GW-SB-BR-10-140-160	GW-SB-BR-11-110-120	GW-SB-BR-11-120-140	GW-SB-BR-11-140-160	GW-SB-BR-12-115-140
Analyte	**CAS**	**Units**											
Total BTEX			***11.50***	***6.18***	***5.56***	***6.56***	***7.84***	***7.44***	***15.33***	***19.30***	***20.00***	***27.98***	***10.76***
1,1,1-Trichloroethane	71-55-6	ug/l	13	9	3	5.3	4.2	3.7	1.9 J	7.2	5.2	3	4
1,1-Dichloroethane	75-34-3	ug/l	12	7.5	5.2	7	5.3	5	1.8 J	11	11	6.2	8.9
1,1-Dichloroethene	75-35-4	ug/l											
1,2,4-Trimethylbenzene	95-63-6	ug/l	4.9	1.8	0.68 J	1.7	1.3	1.2	1.1 J	6	6.3	2.9	0.32 J
1,2-Dichloroethane	107-06-2	ug/l	0.7 J										
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	2.7	1.2	0.52 J	1.2	1.2	1.1	1.1 J	3.5	3.7	1.6	
2-Butanone	78-93-3	ug/l											
Acetone	67-64-1	ug/l											
Benzene	71-43-2	ug/l											
Carbon Disulfide	75-15-0	ug/l											
Chloroform	67-66-3	ug/l											
Chloromethane	74-87-3	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l	40	25	9.3	15	13	11	4.3	31	25	23	23
Dibromochloromethane	124-48-1	ug/l			0.68 J								
Ethylbenzene	100-41-4	ug/l	1.3	0.48 J	0.46 J	0.76 J	0.44 J	0.44 J		1.6	2.1	0.98 J	0.26 J
Isopropylbenzene	98-82-8	ug/l	0.3 J	0.3 J		0.22 J	0.14 J			0.82 J	0.88 J		0.2 J
M, P Xylenes	179601-23-1	ug/l	4.9	2.4	1.2	2.5	1.4	1.4		6.9	8.1	4.1	0.7 J
Methyl tert-Butyl Ether	1634-04-4	ug/l	0.5 J							0.2 J			
Methylene Chloride	75-09-2	ug/l											
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	2.7	1.8	1.2	1.9	1.1	1	0.33 J	4.7	5.2	2.9	1
Styrene	100-42-5	ug/l								0.46 J	0.58 J		
Toluene	108-88-3	ug/l	2.6	1.5	2.7	1.4	4.9	4.6	15	6.1	4.6	20	8.8
trans-1,2-Dichloroethene	156-60-5	ug/l											
Trichloroethene (TCE)	79-01-6	ug/l	12	7.7	1.6	3.2	2.7	2.4	0.8 J	11	6.6	2.1	8.5
Vinyl Chloride	75-01-4	ug/l		2.9	4.6	4.8	4	3.8		7.1	10	1.7	5.2
Total SVOCs			***752.20***	***299.30***	***308.10***	***399.10***	***4448.00***	***1884.00***	***0.00***	***958.90***	***941.80***	***651.70***	***118.20***
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	13	10	4.1	6.5				17	13	9.3	10
1-methylnaphthalene	90-12-0	ug/l	52	26	20	33	120	90		69	73	31	9.5
2-Methylnaphthalene	91-57-6	ug/l	52	6.1	12	23	97 J	82		39	32	19	
4-Chloroaniline	106-47-8	ug/l											
4-Methylphenol (P-Cresol)	106-44-5	ug/l											
4-Nitroaniline	100-01-6	ug/l								3.5 J	3.4 J		
Acenaphthene	83-32-9	ug/l	99	27	44	58	370	240		91	87	53	14
Acenaphthylene	208-96-8	ug/l	3.1 J								3.6 J		
Anthracene	120-12-7	ug/l	6.5				80 J			6.4	4.8 J	5.6	
Benzo(a)anthracene	56-55-3	ug/l					170			4 J		4.8	
Benzo(a)pyrene	50-32-8	ug/l											
Benzo(b)fluoranthene	205-99-2	ug/l					94 J						
Benzo(g,h,i)perylene	191-24-2	ug/l											
Benzo(k)fluoranthene	207-08-9	ug/l											
Biphenyl (Diphenyl)	92-52-4	ug/l	24	7.7	11	14		55		31	29	14	4.7 J
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l											
Carbazole	86-74-8	ug/l	8.6 J	4.5 J		5.6 J				18	19	14	
Chrysene	218-01-9	ug/l					96 J						
Dibenz(a,h)anthracene	53-70-3	ug/l											
Dibenzofuran	132-64-9	ug/l	63	22	35	41	310	190		75	72	45	13
Fluoranthene	206-44-0	ug/l	28		20	7.5	800	240		34	21	37	5 J
Fluorene	86-73-7	ug/l	67	17	35	39	380	210		62	61	45	11
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l											
Naphthalene	91-20-3	ug/l	190	150	39	110	91 J	87		400	400	230	29
N-Nitrosodiphenylamine	86-30-6	ug/l											
Phenanthrene	85-01-8	ug/l	130	29	75	57	1300	530		87	110	120	22
Phenol	108-95-2	ug/l											
Pyrene	129-00-0	ug/l	16		13	4.5 J	540	160		22	13	24	
Total VOC TICs			***60.00***	***27.12***	***30.24***	***41.16***	***140.86***	***126.56***	***160.40***	***107.96***	***107.68***	***61.55***	***71.60***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/l											
(E)-Tetradec-2-enal	51534-36-2	ug/l											
1,2,3,4-Tetramethylbenzene	488-23-3	ug/l	1.6 NDJ										
1,2,3,5-Tetramethylbenzene	527-53-7	ug/l					2.2 NDJ		1.8 NDJ				
1,2,3-Trimethyl Benzene	526-73-8	ug/l											
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l					1.7 NDJ	1.7 NDJ					
1,2-Dimethylindan	17057-82-8	ug/l						0.92 NDJ					
1,3,8-P-Menthatriene	21195-59-5	ug/l						0.78 NDJ					
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene	76089-59-3	ug/l											
1,3-Dimethylnaphthalene	575-41-7	ug/l										0.84 NDJ	
1,4-Dihydro-1,4-Methanonaphthalene	4453-90-1	ug/l											
1,4-DIHYDRONAPHTHALENE	612-17-9	ug/l									1 NDJ		
1,5-Dimethyl Naphthalene	571-61-9	ug/l				1 NDJ							
1,7-Dimethyl Naphthalene	575-37-1	ug/l											
1-CYCLOPROP-2-EN-1-YL-2-METHYLBENZENE	65051-83-4	ug/l				0.34 NDJ							
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/l	2.8 NDJ							3.3 NDJ	3.5 NDJ	1.5 NDJ	1 NDJ
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l		1.5 NDJ									
1-Ethyl Naphthalene	1127-76-0	ug/l			0.7 NDJ			3.9 NDJ					
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/l						1.4 NDJ					
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l	2.8 NDJ		0.42 NDJ	1 NDJ	0.82 NDJ			2.6 NDJ	2.8 NDJ	1.8 NDJ	0.24 NDJ
1-ethylidene- Indene	2471-83-2	ug/l											
1-Ethyltoluene	611-14-3	ug/l		1.3 NDJ						1 NDJ			
1-Ethynyl-4-Methylbenzene	766-97-2	ug/l											
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/l								0.9 NDJ			0.46 NDJ
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l	2.3 NDJ				4.2 NDJ						
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/l											0.26 NDJ
1h-Indene, 2,3-Dihydro-2,2-Dimethyl-	824-63-5	ug/l											0.46 NDJ
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/l					0.98 NDJ	1.2 NDJ	1.5 NDJ				
1H-Indene, Octahydro-, cis-	824-22-6	ug/l				1.3 NDJ		3.8 NDJ		2.5 NDJ			
1-Methyl-1-Cyclohexene	1587-04-8	ug/l							2.8 NDJ				
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/l											
1-Methylindan	767-58-8	ug/l		1.6 NDJ		1.5 NDJ	2.8 NDJ	2.6 NDJ				0.85 DNJ	
1-Methylindene	767-59-9	ug/l								0.98 NDJ			
1-methylnaphthalene	90-12-0	ug/l					21 NDJ						
1-Pentenylbenzene	824-90-8	ug/l										1.3 DNJ	
1-Phenyl-1-Propyne	673-32-5	ug/l							2 NDJ				
2-(2-Hydroxyphenyl)buta-1,3...	38865-47-3	ug/l											
2,3-Benzofuran	271-89-6	ug/l	1.5 NDJ	0.66 NDJ	0.6 NDJ	0.92 NDJ	0.98 NDJ	0.88 NDJ		1.8 NDJ	1.8 NDJ	1.7 NDJ	
2,3-Dihydro-1h-Indene	496-11-7	ug/l	19 NDJ	9.5 NDJ	6 NDJ	11 NDJ	9.9 NDJ	9.5 NDJ	7.5 NDJ	22 NDJ	25 NDJ	13 NDJ	3.9 NDJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l		0.4 NDJ	0.94 NDJ		5.4 NDJ	1.3 NDJ	8.6 NDJ				0.2 NDJ
2,6-Dimethyl-Napthalene	581-42-0	ug/l		0.5 NDJ	1.2 NDJ			6.3 NDJ	12 NDJ				
2,7-Dimethyl Naphthalene	582-16-1	ug/l					7.1 NDJ	4.6 NDJ					0.22 NDJ

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12
Start Depth (ft):			120	105	115	125	135	135	140	110	120	140	115
Sample:			GW-SB-BR-07-120-140	GW-SB-BR-10-105-115	GW-SB-BR-10-115-125	GW-SB-BR-10-125-135	GW-SB-BR-10-135-140	GW-SB-BR-10-135-140-1	GW-SB-BR-10-140-160	GW-SB-BR-11-110-120	GW-SB-BR-11-120-140	GW-SB-BR-11-140-160	GW-SB-BR-12-115-140
Analyte	**CAS**	**Units**											
2a,4a,6a,6b-Tetrahydrocyclo...	6053-74-3	ug/l											
2-Decenal, (Z)-	2497-25-8	ug/l											
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/l											
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/l							1.8 NDJ				0.16 NDJ
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/l								1.2 NDJ	1.3 NDJ		
2-METHYLBENZOFURAN	4265-25-2	ug/l								5.1 NDJ	5.2 NDJ		3.6 NDJ
2-METHYLINDENE	2177-47-1	ug/l											
2-Methylnaphthalene	91-57-6	ug/l						18 NDJ	27 NDJ				2.2 NDJ
2-Octenal, (E)-	2548-87-0	ug/l											
3,5-Dimethyl-1-Ethylbenzene	934-74-7	ug/l		0.56 NDJ	0.4 NDJ								
3a,6-Methano-3aH-indene, 2,...	98640-29-0	ug/l											0.54 NDJ
3-Hydroxyphenylacetylene	10401-11-3	ug/l										1.8 DNJ	
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											0.42 NDJ
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/l					2.1 NDJ	1.8 NDJ					
3-phenyl-2-propenal	104-55-2	ug/l											
3-Phenyl-2-propyn-1-ol	1504-58-1	ug/l											
3-Phenylbut-1-ene	934-10-1	ug/l			0.7 NDJ								
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/l				0.66 NDJ		1.5 NDJ					
4-Ethyltoluene	622-96-8	ug/l		0.38 NDJ							1.1 NDJ		
5-Methylbenzimidazole	614-97-1	ug/l											
Azulene	275-51-4	ug/l											
Benzene, (1-methyl-1-propen... (02)	767-99-7	ug/l											
BENZENE, (1-METHYL-1-PROPENYL)-, (E)-	768-00-3	ug/l											
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/l			0.88 NDJ								
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/l											
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/l					1.7 NDJ		1.7 NDJ				
Benzene, 2-Butenyl	1560-06-1	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l	3.2 NDJ		0.98 NDJ	1.8 NDJ	3 NDJ	2.7 NDJ	3.2 NDJ	3.2 NDJ	3.5 NDJ	1.5 NDJ	
Benzo[b]thiophene	95-15-8	ug/l	3.2 NDJ	2.2 NDJ		2.2 NDJ		1.8 NDJ					
Benzo[C]Thiophene	270-82-6	ug/l	2.9 DNJ		1.2 NDJ		2.5 NDJ			7.4 NDJ	6 NDJ	4.2 NDJ	3.6 NDJ
BENZOCYCLOHEPTATRIENE	264-09-5	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l	2.3 NDJ	0.94 NDJ	1.1 NDJ	1.9 NDJ						1.7 NDJ	
Biphenyl (Diphenyl)	92-52-4	ug/l					5.9 NDJ	5.5 NDJ	8.5 NDJ				
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l											
Cymene	99-87-6	ug/l											
Decyl Aldehyde	112-31-2	ug/l											
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l				0.86 NDJ							
Ethyl Acetate	141-78-6	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l		0.3 NDJ		0.68 NDJ	4.4 NDJ		6.5 NDJ	0.74 NDJ	0.58 NDJ		
Furan, 2-pentyl-	3777-69-3	ug/l											
Heptanal	111-71-7	ug/l											
Hexanal	66-25-1	ug/l			2 NDJ				4.2 NDJ				
Indene	95-13-6	ug/l	11 NDJ	0.92 NDJ	4 NDJ	6.9 NDJ	5 NDJ	5.1 NDJ		18 NDJ	19 NDJ	13 NDJ	4.1 NDJ
M-Cymene	535-77-3	ug/l											
Naphthalene	91-20-3	ug/l					26 NDJ	25 NDJ	26 NDJ				9.7 NDJ
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/l	2 NDJ	0.86 NDJ	0.54 NDJ	1.1 NDJ	1.8 NDJ	1.6 NDJ	2.1 NDJ	2.3 NDJ	2.4 NDJ	1.1 NDJ	0.3 NDJ
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l					1.5 NDJ		2.4 NDJ	1 NDJ	0.88 NDJ		
NAPHTHALENE, 2-ETHENYL-	827-54-3	ug/l											
N-Butyraldehyde	123-72-8	ug/l											
Nonanol	124-19-6	ug/l		0.58 NDJ	3 NDJ	1.9 NDJ			2.2 NDJ			3 NDJ	
Octanal	124-13-0	ug/l			1.4 NDJ				1.3 NDJ				
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/l	1.2 NDJ										
Propylene	115-07-1	ug/l											
Total Alkane Tics	E966796	ug/l								23 DJ	21 DJ		33 DJ
Unknown-01	UNKNOWN-01	ug/l	1.4 DJ	0.8 DJ	0.84 DJ	1.6 DJ	1.1 DJ	1.1 DJ	2.7 DJ	2.1 DJ	1.8 DJ	4.8 DJ	2.3 DJ
Unknown-02	UNKNOWN-02	ug/l	1.7 DJ	0.54 BDJ	0.64 BDJ	0.66 BDJ	1.5 DJ	1.2 DJ	1.3 BDJ	0.58 DJ	0.44 BDJ	5 DJ	0.3 BDJ
Unknown-03	UNKNOWN-03	ug/l	1.1 DJ	0.92 DJ	0.62 DJ	0.9 DJ	0.88 DJ	0.78 DJ	4.8 NDJ	5 NDJ	4.1 NDJ	1 DJ	0.16 DJ
Unknown-04	UNKNOWN-04	ug/l		0.16 BDJ	0.46 DJ	0.58 DJ	2.2 DJ	1.9 DJ	2.2 DJ	0.84 DJ	0.7 DJ	2.5 NDJ	0.9 DJ
Unknown-05	UNKNOWN-05	ug/l		0.24 DJ	0.6 DJ	0.34 DJ	1.3 NDJ	18 NDJ	2.2 DJ	0.84 DJ	2.6 NDJ	0.96 NDJ	1.9 NDJ
Unknown-06	UNKNOWN-06	ug/l		0.68 DJ	0.38 DJ	1.2 DJ	21 NDJ	1.7 NDJ	2.5 DJ	0.38 DJ	0.76 DJ		0.18 DJ
Unknown-07	UNKNOWN-07	ug/l		1.1 NDJ	0.64 DJ	0.4 DJ	1.9 NDJ		1.2 DJ	1.2 NDJ	0.76 DJ		0.3 DJ
Unknown-08	UNKNOWN-08	ug/l		0.2 DJ		0.42 DJ			18 NDJ		0.68 DJ		0.6 NDJ
Unknown-09	UNKNOWN-09	ug/l		0.28 DJ					2.4 NDJ		0.78 NDJ		0.46 DJ
Unknown-10	UNKNOWN-10	ug/l											0.14 DJ
Unknown-11	UNKNOWN-11	ug/l											
Unknown-12	UNKNOWN-12	ug/l											
Unknown-13	UNKNOWN-13	ug/l											
Unknown-14	UNKNOWN-14	ug/l											
Unknown-15	UNKNOWN-15	ug/l											
Unknown-16	UNKNOWN-16	ug/l											
Unknown-17	UNKNOWN-17	ug/l											
Unknown-18	UNKNOWN-18	ug/l											
Total SVOC TICs			162.2	40.6	192.8	104.4	676	204	0	179.7	139.2	121.1	83.9
1,1'-BIPHENYL, 2-METHYL-	643-58-3	ug/l	2.5 NJ										
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/l	4.8 NJ							3.3 NJ	2.6 NJ	2.5 NJ	
1,1'-METHYLENEBIS-BENZENE	101-81-5	ug/l											
1,2,3-Trimethyl Benzene	526-73-8	ug/l								4.6 NJ	2.1 NJ		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	4 NJ										
1,3-Dimethylnaphthalene	575-41-7	ug/l				2.4 NJ				4.6 NJ	4.2 NJ	2.6 NJ	
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l											
1,6,7-Trimethyl-Napthalene	2245-38-7	ug/l	2.3 NJ										
1,7-Dimethyl Naphthalene	575-37-1	ug/l			2.4 NJ								
11h-Benzo[b]Fluorene	243-17-4	ug/l					50 NDJ						
12-Hydroxystearic acid	106-14-9	ug/l											
1-Acenaphthenol	6306-07-6	ug/l											
1-Butenyl-(E)-Benzene	1005-64-7	ug/l											
1-Ethenyl-2-Methyl-Benzene	611-15-4	ug/l											
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l											
1-Ethyl Naphthalene	1127-76-0	ug/l			5.4 NJ	4.2 NJ					6.4 NJ	3.6 NJ	
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l											
1-Ethyltoluene	611-14-3	ug/l								2.3 NJ			
1-Heptadecanol	1454-85-9	ug/l											
1-Hexanol	111-27-3	ug/l											
1H-Indazole, 3-methyl-	1000316-00-2	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l											
1-Iodo-2-Methylundecane	1855-47-6	ug/l	3.5 NJ										

J The value is an estimated quantity.
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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12
Start Depth (ft):			120	105	115	125	135	135	140	110	120	140	115
Sample:			GW-SB-BR-07-120-140	GW-SB-BR-10-105-115	GW-SB-BR-10-115-125	GW-SB-BR-10-125-135	GW-SB-BR-10-135-140	GW-SB-BR-10-135-140-1	GW-SB-BR-10-140-160	GW-SB-BR-11-110-120	GW-SB-BR-11-120-140	GW-SB-BR-11-140-160	GW-SB-BR-12-115-140
Analyte	**CAS**	**Units**											
1-Methyl-3-Propyl-Cyclohexane	3333-13-9	ug/l											
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/l			2.4 NJ		93 NDJ	27 NDJ		3.5 NJ	2.2 NJ	3.9 BNJ	
1-Phenyl-1-Propyne	673-32-5	ug/l		12 NJ		17 NJ					43 NJ		
2(1H)-Quinolinone, 3-methyl-	2721-59-7	ug/l								2.4 NJ			
2-(2-Butoxyethoxy)Ethanol	112-34-5	ug/l											
2(3H)-Furanone, 5-hexyldihy...	121644-12-0	ug/l											
2,3-Benzofuran	271-89-6	ug/l	2.8 NJ							4.1 NJ	3.9 NJ	3.8 NJ	
2,3-Dihydro-1h-Indene	496-11-7	ug/l	17 NJ	7.4 NJ	3.8 NJ	9.3 NJ				23 NJ	25 NJ	10 NJ	3.6 NJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l	5.3 NJ										
2,4-Nonadiyne	63621-15-8	ug/l											
2,5-Dimethyl Phenanthrene	3674-66-6	ug/l											
2,7-Dimethyl Naphthalene	582-16-1	ug/l	15 NJ	2.7 NJ	3.9 NJ					10 NJ			
2-Chlorocyclohexanol	1561-86-0	ug/l								3.5 BNJ	2.6 BNJ		2.4 BNJ
2-Ethyl-1-Hexanol	104-76-7	ug/l											
2-Ethylhexanoic Acid	149-57-5	ug/l											
2-METHYLBENZOFURAN	4265-25-2	ug/l								12 NJ	8.3 NJ	4.1 NJ	8.1 NJ
2-Methylphenylacetylene	766-47-2	ug/l											
2-Phenyl Naphthalene	612-94-2	ug/l					49 NDJ					2.2 NJ	
3-Hydroxyphenylacetylene	10401-11-3	ug/l											
3'-Methyl-[1,1'-biphenyl]-4...	400744-83-4	ug/l											
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											
3-Methylbutanoic Acid	503-74-2	ug/l											
3-Methylphenylacetylene	766-82-5	ug/l											
3-Phenylbut-1-ene	934-10-1	ug/l											
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/l											
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/l	13 NJ		4.9 NJ	2.5 NJ	160 NDJ	47 NDJ		8.4 NJ	6.1 NJ	8.8 NJ	
4-Methyldibenzofuran	7320-53-8	ug/l	9.7 NJ		3.9 NJ	3.1 NJ	52 NDJ	29 NDJ		7.6 NJ	5.8 NJ	4.7 NJ	
4-Oxononanal	1000314-10-4	ug/l											
4-PHENYLBENZALDEHYDE	3218-36-8	ug/l					69 NDJ						
5-Amino-1-naphthol	83-55-6	ug/l								2.7 NJ			
7H-BENZO[C]CARBAZOLE	205-25-4	ug/l											
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/l											
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Oxoxantho(2,3-G)	84-65-1	ug/l											
9H-Fluoren-3-ol	6344-67-8	ug/l						22 NDJ				6.1 NJ	
9H-Fluorene, 1-methyl-	1730-37-6	ug/l			2.2 NJ							2.3 NJ	
9H-Fluorene, 2-methyl-	1430-97-3	ug/l	5.2 NJ										
9H-Fluorene, 9-methyl-	2523-37-7	ug/l								2.2 NJ			
Anthracene, 9,10-dihydro-	613-31-0	ug/l	2.3 NJ										
Azelaic Acid	123-99-9	ug/l											
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-YLIDEN	2320-32-3	ug/l											
BENZENE, 1-BUTYNYL-	622-76-4	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l	5.1 NJ										
Benzeneacetic Acid	103-82-2	ug/l											
Benzenesulfonamide, N-butyl-	3622-84-2	ug/l											
Benzo(a)fluorene	238-84-6	ug/l											
Benzo(b)thiophene, 2,3-dihydro-	4565-32-6	ug/l											3.3 NJ
Benzo[b]thiophene	95-15-8	ug/l			4.3 NJ							20 NJ	
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/l	2.4 NJ										
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/l											2.2 NJ
Benzo[C]Thiophene	270-82-6	ug/l	12 NJ	10 NJ		8.6 NJ				2.1 NJ			20 NJ
Benzo[e]pyrene	192-97-2	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l	4 NJ	2.5 NJ		2.1 NJ						2.8 NJ	3.2 NJ
Benzoic Acid	65-85-0	ug/l											
Butyl citrate	77-94-1	ug/l		6 NJ	61 NJ	12 NJ				2.3 NJ		9.2 NJ	5.8 NJ
Cyclohexene	110-83-8	ug/l											
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l											
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/l											
Decanedioic acid	111-20-6	ug/l											
Decanoic Acid	334-48-5	ug/l											
Dibenzothiophene (Synfuel)	132-65-0	ug/l	10 NJ		4.5 NJ		72 NDJ	31 NDJ		8.2 NJ			
Dichlorocyclohexane; trans-1,2-	822-86-6	ug/l											
Dimantine	124-28-7	ug/l											
Dimethyl Anthracene; 9,10-	781-43-1	ug/l											
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l								3.4 NJ			
Dodecanoic Acid	143-07-7	ug/l											
Ethenyl-cyclobutane	2597-49-1	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l											
Ethylidenecyclobutane	1528-21-8	ug/l											
Fluoranthene, 2-Methyl-	33543-31-6	ug/l					60 NDJ						
Heptanal	111-71-7	ug/l											
Heptanoic Acid	111-14-8	ug/l											
Hexadecanoic Acid	57-10-3	ug/l											
Hexanal	66-25-1	ug/l											
Hexanoic Acid (Dot)	142-62-1	ug/l			16 NJ	7.4 NJ							
HEXATHIANE	13798-23-7	ug/l											
Indene	95-13-6	ug/l	25 NJ							44 NJ			8.1 NJ
Methyl 2,5,8,11,14,17,20-he...	1010366-81-3	ug/l											
Methyl Anthracene; 2-	613-12-7	ug/l	5.3 NJ				71 NDJ						
Methyl Phenanthrene; 2-	2531-84-2	ug/l	4.4 NJ										
Methyl Pyrene	2381-21-7	ug/l										2 NJ	
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/l								3.8 NJ	3.6 NJ		
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l						25 NDJ					
Naphthalene, 2-(1-methyleth...	2027-17-0	ug/l											
Naphtho[1,2-b]thiophene	234-41-3	ug/l									7.3 NJ	6.3 NJ	2.7 NJ
Naphtho[2,1-b]thiophene	233-02-3	ug/l				3.8 NJ							
Nonanoic Acid	112-05-0	ug/l				12 NJ						13 NJ	
Nonanol	124-19-6	ug/l											
Nonanol; 1-	143-08-8	ug/l											
Octadecanoic Acid	57-11-4	ug/l											
Octanoic Acid	124-07-2	ug/l										2.9 NJ	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l											
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/l											
Phenanthrene, 9,10-dihydro-	776-35-2	ug/l											
Phenylpropionic Acid; 3-	501-52-0	ug/l											
P-Xylene (1,4-Dimethylbenzene)	106-42-3	ug/l											
Quinoline, 2-Methyl-	91-63-4	ug/l											
Tetradecanoic Acid	544-63-8	ug/l											
Toluene	108-88-3	ug/l											4.9 NJ

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J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-07	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-10	SB-BR-11	SB-BR-11	SB-BR-11	SB-BR-12
			Start Depth (ft):	120	105	115	125	135	135	140	110	120	140	115
			Sample:	GW-SB-BR-07-120-140	GW-SB-BR-10-105-115	GW-SB-BR-10-115-125	GW-SB-BR-10-125-135	GW-SB-BR-10-135-140	GW-SB-BR-10-135-140-1	GW-SB-BR-10-140-160	GW-SB-BR-11-110-120	GW-SB-BR-11-120-140	GW-SB-BR-11-140-160	GW-SB-BR-12-115-140
Analyte	**CAS**	**Units**												
Tri(2-Ethylhexyl) Trimellitate	3319-31-1	ug/l												
Tributyl acetylcitrate	77-90-7	ug/l				5.8 NJ	5.4 NJ							
Triethylene Glycol	112-27-6	ug/l												
Trimethyl Naphthalene; 2,3,6-	829-26-5	ug/l												
Triphenylphosphine Oxide	791-28-6	ug/l							23 BNDJ					3.1 NBJ
Unknown-01	UNKNOWN-01	ug/l	6.6 NJ		2.2 J	3.9 J				2.8 NJ	2.5 NJ	2.8 J	4 J	
Unknown-02	UNKNOWN-02	ug/l			8.2 NJ	2.3 NJ				2.2 NJ	3.9 NJ	2.5 J	4 J	
Unknown-03	UNKNOWN-03	ug/l			11 J	5.7 J				2.5 J	2.1 J	2.8 J	8.5 J	
Unknown-04	UNKNOWN-04	ug/l			19 J	2.7 J				2.6 J	4.7 NJ	2.2 J		
Unknown-05	UNKNOWN-05	ug/l			2.2 J					5.9 NJ	2.9 J			
Unknown-06	UNKNOWN-06	ug/l			3 NJ					3.5 J				
Unknown-07	UNKNOWN-07	ug/l			3.1 NJ					2.2 J				
Unknown-08	UNKNOWN-08	ug/l			21 J									
Unknown-09	UNKNOWN-09	ug/l			2.6 J									
Unknown-10	UNKNOWN-10	ug/l												
Unknown-11	UNKNOWN-11	ug/l												
Unknown-12	UNKNOWN-12	ug/l												
Unknown-13	UNKNOWN-13	ug/l												
Unknown-14	UNKNOWN-14	ug/l												
Unknown-15	UNKNOWN-15	ug/l												
Unknown-16	UNKNOWN-16	ug/l												
Unknown-17	UNKNOWN-17	ug/l												
Unknown-18	UNKNOWN-18	ug/l												
Unknown-19	UNKNOWN-19	ug/l												
Unknown-20	UNKNOWN-20	ug/l												
Unknown-21	UNKNOWN-21	ug/l												
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l						11	8.5					
Total Petroleum Hydrocarbons	TPH	mg/l						4.8						

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J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-12	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF18
Start Depth (ft):			140	120	140	190	83	110	110	120	130	140	110
Sample:			GW-SB-BR-12-140-160	GW-SB-BR-13-120-140	GW-SB-BR-13-140-150	GW-SB-BR-13-190-200	GW-SB-BR-LIF16-83-110	GW-SB-BR-LIF16-110-120	GW-SB-BR-LIF16-110-120-1	GW-SB-BR-LIF16-120-130	GW-SB-BR-LIF16-130-140	GW-SB-BR-LIF16-140-160	GW-SB-BR-LIF18-110-120
Analyte	**CAS**	**Units**											
Total BTEX			***62.27***	***0.00***	***1.90***	***54.00***	***8.90***	***5.76***	***5.90***	***15.80***	***62.00***	***59.00***	***24.00***
1,1,1-Trichloroethane	71-55-6	ug/l		6.8	9.3		20	11	11	1.6			
1,1-Dichloroethane	75-34-3	ug/l	3.5	4.6	6.5	0.62 J	17	12	12	17	0.72 J		2 J
1,1-Dichloroethene	75-35-4	ug/l											
1,2,4-Trimethylbenzene	95-63-6	ug/l						2.7	2.7	3.4			15
1,2-Dichloroethane	107-06-2	ug/l			0.38 J		0.8 J	0.64 J	0.62 J	0.8 J			
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l						1.8	1.8	1.8			7.4
2-Butanone	78-93-3	ug/l											
Acetone	67-64-1	ug/l											
Benzene	71-43-2	ug/l											
Carbon Disulfide	75-15-0	ug/l									0.66 J	0.44 J	
Chloroform	67-66-3	ug/l											
Chloromethane	74-87-3	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l	7.9 J+	18	22	2.2 J	69	47	47	100	2.3	0.6 J	4.2 J
Dibromochloromethane	124-48-1	ug/l											
Ethylbenzene	100-41-4	ug/l						0.64 J	0.64 J	1.8			1.4 J
Isopropylbenzene	98-82-8	ug/l								0.4 J			
M, P Xylenes	179601-23-1	ug/l						2.5	2.6	4.7			6.4
Methyl tert-Butyl Ether	1634-04-4	ug/l						1.2	1.2	2			
Methylene Chloride	75-09-2	ug/l											
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	0.27 J					1.7	1.7	3.2			3.2 J
Styrene	100-42-5	ug/l											
Toluene	108-88-3	ug/l	62		1.9	54	8.9	0.92 J	0.96 J	6.1	62	59	13
trans-1,2-Dichloroethene	156-60-5	ug/l											
Trichloroethene (TCE)	79-01-6	ug/l	1.5 J	6.7	8.8		21	14	14	5.8			
Vinyl Chloride	75-01-4	ug/l						4.8	4.9	38			
Total SVOCs			***18.80***	***6.50***	***14.40***	***13.67***	***20.00***	***327.00***	***316.50***	***380.20***	***38.60***	***4.50***	***2528.00***
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	2.8	6.5	10	0.67 J	20	15	14	9.8			
1-methylnaphthalene	90-12-0	ug/l						29	27	34			120
2-Methylnaphthalene	91-57-6	ug/l						5.9	5.4	15			270
4-Chloroaniline	106-47-8	ug/l											
4-Methylphenol (P-Cresol)	106-44-5	ug/l											
4-Nitroaniline	100-01-6	ug/l											
Acenaphthene	83-32-9	ug/l						33	31	37			190
Acenaphthylene	208-96-8	ug/l											
Anthracene	120-12-7	ug/l											24
Benzo(a)anthracene	56-55-3	ug/l											39
Benzo(a)pyrene	50-32-8	ug/l											16 J
Benzo(b)fluoranthene	205-99-2	ug/l											24
Benzo(g,h,i)perylene	191-24-2	ug/l											
Benzo(k)fluoranthene	207-08-9	ug/l											
Biphenyl (Diphenyl)	92-52-4	ug/l						7.9	7.3	7.8			41
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l				13					23	4.5 J	
Carbazole	86-74-8	ug/l						5.2 J	4.8 J	6.6 J			15 J
Chrysene	218-01-9	ug/l											19 J
Dibenz(a,h)anthracene	53-70-3	ug/l											
Dibenzofuran	132-64-9	ug/l						22	20	22			150
Fluoranthene	206-44-0	ug/l											250
Fluorene	86-73-7	ug/l						17	16	18			160
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l											
Naphthalene	91-20-3	ug/l	4.9 J					170	170	210	4.1 J		560
N-Nitrosodiphenylamine	86-30-6	ug/l	4.1 J										
Phenanthrene	85-01-8	ug/l	7		4.4 J			22	21	20	4.4 J		500
Phenol	108-95-2	ug/l									7.1 J		
Pyrene	129-00-0	ug/l											150
Total VOC TICs			***28.50***	***8.90***	***8.50***	***22.00***	***1.30***	***97.90***	***98.60***	***130.20***	***12.40***	***5.90***	***184.80***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/l											
(E)-Tetradec-2-enal	51534-36-2	ug/l											
1,2,3,4-Tetramethylbenzene	488-23-3	ug/l											
1,2,3,5-Tetramethylbenzene	527-53-7	ug/l							1.2 NDJ				
1,2,3-Trimethyl Benzene	526-73-8	ug/l											
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l											
1,2-Dimethylindan	17057-82-8	ug/l											
1,3,8-P-Menthatriene	21195-59-5	ug/l											
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene	76089-59-3	ug/l											
1,3-Dimethylnaphthalene	575-41-7	ug/l											
1,4-Dihydro-1,4-Methanonaphthalene	4453-90-1	ug/l											
1,4-DIHYDRONAPHTHALENE	612-17-9	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l											
1,7-Dimethyl Naphthalene	575-37-1	ug/l											
1-CYCLOPROP-2-EN-1-YL-2-METHYLBENZENE	65051-83-4	ug/l											
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/l											
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l											
1-Ethyl Naphthalene	1127-76-0	ug/l											
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/l											
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l						2.2 NDJ	2.2 NDJ	1.4 NDJ			
1-ethylidene- Indene	2471-83-2	ug/l											
1-Ethyltoluene	611-14-3	ug/l											8.3 DNJ
1-Ethynyl-4-Methylbenzene	766-97-2	ug/l											
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l								2.8 NDJ			7 DNJ
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/l											
1h-Indene, 2,3-Dihydro-2,2-Dimethyl-	824-63-5	ug/l											
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l						2.1 NDJ	1.5 NDJ	1.8 NDJ			9.3 DNJ
1-Methyl-1-Cyclohexene	1587-04-8	ug/l											
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/l											
1-Methylindan	767-58-8	ug/l						1.7 NDJ	1.8 NDJ	2.1 NDJ			
1-Methylindene	767-59-9	ug/l											
1-methylnaphthalene	90-12-0	ug/l						1.8 NDJ					60 DNJ
1-Pentenylbenzene	824-90-8	ug/l											
1-Phenyl-1-Propyne	673-32-5	ug/l											
2-(2-Hydroxyphenyl)buta-1,3...	38865-47-3	ug/l											
2,3-Benzofuran	271-89-6	ug/l						1.1 NDJ		1.4 NDJ			
2,3-Dihydro-1h-Indene	496-11-7	ug/l						11 NDJ	11 NDJ	20 NDJ			41 DNJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l											
2,6-Dimethyl-Napthalene	581-42-0	ug/l											
2,7-Dimethyl Naphthalene	582-16-1	ug/l											

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-12	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF18
Start Depth (ft):			140	120	140	190	83	110	110	120	130	140	110
Sample:			GW-SB-BR-12-140-160	GW-SB-BR-13-120-140	GW-SB-BR-13-140-150	GW-SB-BR-13-190-200	GW-SB-BR-LIF16-83-110	GW-SB-BR-LIF16-110-120	GW-SB-BR-LIF16-110-120-1	GW-SB-BR-LIF16-120-130	GW-SB-BR-LIF16-130-140	GW-SB-BR-LIF16-140-160	GW-SB-BR-LIF18-110-120
Analyte	**CAS**	**Units**											
2a,4a,6a,6b-Tetrahydrocyclo...	6053-74-3	ug/l											
2-Decenal, (Z)-	2497-25-8	ug/l											
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/l											
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/l											
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/l											
2-METHYLBENZOFURAN	4265-25-2	ug/l								1.7 NDJ			
2-METHYLINDENE	2177-47-1	ug/l											
2-Methylnaphthalene	91-57-6	ug/l	1.1 NDJ					4.7 NDJ	5 NDJ	5.9 NDJ			23 DNJ
2-Octenal, (E)-	2548-87-0	ug/l											
3,5-Dimethyl-1-Ethylbenzene	934-74-7	ug/l											
3a,6-Methano-3aH-indene, 2,...	98640-29-0	ug/l											
3-Hydroxyphenylacetylene	10401-11-3	ug/l							1.1 NDJ				
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/l											
3-phenyl-2-propenal	104-55-2	ug/l											
3-Phenyl-2-propyn-1-ol	1504-58-1	ug/l						1.8 NDJ					
3-Phenylbut-1-ene	934-10-1	ug/l											
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/l											
4-Ethyltoluene	622-96-8	ug/l											
5-Methylbenzimidazole	614-97-1	ug/l	0.4 NDJ										
Azulene	275-51-4	ug/l											
Benzene, (1-methyl-1-propen... (02)	767-99-7	ug/l											
BENZENE, (1-METHYL-1-PROPENYL)-, (E)-	768-00-3	ug/l											
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/l											7.4 DNJ
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/l						1.5 NDJ					
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/l											
Benzene, 2-Butenyl	1560-06-1	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l											
Benzo[b]thiophene	95-15-8	ug/l							3 DNJ	3.3 NDJ			
Benzo[C]Thiophene	270-82-6	ug/l	0.75 NDJ					2.6 NDJ	2.6 NDJ				
BENZOCYCLOHEPTATRIENE	264-09-5	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l	0.8 NDJ						1.8 NDJ	2.4 NDJ			
Biphenyl (Diphenyl)	92-52-4	ug/l											
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l						2.9 DNJ					7.9 DNJ
Cymene	99-87-6	ug/l											
Decyl Aldehyde	112-31-2	ug/l	0.3 NDJ										
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l											
Ethyl Acetate	141-78-6	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l											
Furan, 2-pentyl-	3777-69-3	ug/l											
Heptanal	111-71-7	ug/l											
Hexanal	66-25-1	ug/l		2 NDJ	1.1 NDJ	5.3 NDJ					2.9 NDJ	2.2 NDJ	
Indene	95-13-6	ug/l	0.95 NDJ					7 NDJ	7.1 NDJ	12 NDJ			15 DNJ
M-Cymene	535-77-3	ug/l											
Naphthalene	91-20-3	ug/l	2.9 NDJ					54 NDJ	54 NDJ	66 NDJ			
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/l						1.3 NDJ	1.3 NDJ	1.7 NDJ			5.9 DNJ
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l											
NAPHTHALENE, 2-ETHENYL-	827-54-3	ug/l											
N-Butyraldehyde	123-72-8	ug/l											
Nonanol	124-19-6	ug/l		0.96 NDJ	2.7 NDJ	13 NDJ					4.9 NDJ	2.5 NDJ	
Octanal	124-13-0	ug/l	0.6 NDJ	0.46 NDJ		3.7 NDJ					1.3 NDJ		
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/l											
Propylene	115-07-1	ug/l									3.3 NDJ		
Total Alkane Tics	E966796	ug/l	0.3 DJ	3.9 DJ	3.3 DJ			1 DJ	1 DJ	3.5 DJ			
Unknown-01	UNKNOWN-01	ug/l	11 DJ	0.92 DJ	1.4 DJ		1.3 DJ	1.2 DJ	2.1 NDJ	4.2 NDJ		1.2 DJ	
Unknown-02	UNKNOWN-02	ug/l	0.55 DJ	0.26 BDJ					1.9 NDJ				
Unknown-03	UNKNOWN-03	ug/l	1 BDJ	0.14 DJ									
Unknown-04	UNKNOWN-04	ug/l	0.3 DJ	0.26 DJ									
Unknown-05	UNKNOWN-05	ug/l	0.95 DJ										
Unknown-06	UNKNOWN-06	ug/l	0.45 DJ										
Unknown-07	UNKNOWN-07	ug/l	0.25 DJ										
Unknown-08	UNKNOWN-08	ug/l	1.2 DJ										
Unknown-09	UNKNOWN-09	ug/l	0.3 DJ										
Unknown-10	UNKNOWN-10	ug/l	0.75 DJ										
Unknown-11	UNKNOWN-11	ug/l	3 DJ										
Unknown-12	UNKNOWN-12	ug/l	0.65 NDJ										
Unknown-13	UNKNOWN-13	ug/l											
Unknown-14	UNKNOWN-14	ug/l											
Unknown-15	UNKNOWN-15	ug/l											
Unknown-16	UNKNOWN-16	ug/l											
Unknown-17	UNKNOWN-17	ug/l											
Unknown-18	UNKNOWN-18	ug/l											
Total SVOC TICs			71.5	242.5	38.3	259.5	445.1	470.4	411	509.4	239.2	997.4	878
1,1'-BIPHENYL, 2-METHYL-	643-58-3	ug/l											
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/l											
1,1'-METHYLENEBIS-BENZENE	101-81-5	ug/l											
1,2,3-Trimethyl Benzene	526-73-8	ug/l						2.4 NJ					
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l											
1,3-Dimethylnaphthalene	575-41-7	ug/l							3.3 NJ				
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/l											
1,5-Dimethyl Naphthalene	571-61-9	ug/l											
1,6,7-Trimethyl-Napthalene	2245-38-7	ug/l											
1,7-Dimethyl Naphthalene	575-37-1	ug/l						3.5 NJ					
11h-Benzo[b]Fluorene	243-17-4	ug/l											15 NDJ
12-Hydroxystearic acid	106-14-9	ug/l									31 NJ	270 NJ	
1-Acenaphthenol	6306-07-6	ug/l											
1-Butenyl-(E)-Benzene	1005-64-7	ug/l						2.9 NJ					
1-Ethenyl-2-Methyl-Benzene	611-15-4	ug/l											24 DNJ
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l											
1-Ethyl Naphthalene	1127-76-0	ug/l						2 NJ					
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l							2.2 NJ				
1-Ethyltoluene	611-14-3	ug/l											
1-Heptadecanol	1454-85-9	ug/l										2.4 NJ	
1-Hexanol	111-27-3	ug/l									4.7 NJ		
1H-Indazole, 3-methyl-	1000316-00-2	ug/l											
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l											
1H-Indene, Octahydro-, cis-	824-22-6	ug/l											
1-Iodo-2-Methylundecane	1855-47-6	ug/l											

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GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-12	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF18
Start Depth (ft):			140	120	140	190	83	110	110	120	130	140	110
Sample:			GW-SB-BR-12-140-160	GW-SB-BR-13-120-140	GW-SB-BR-13-140-150	GW-SB-BR-13-190-200	GW-SB-BR-LIF16-83-110	GW-SB-BR-LIF16-110-120	GW-SB-BR-LIF16-110-120-1	GW-SB-BR-LIF16-120-130	GW-SB-BR-LIF16-130-140	GW-SB-BR-LIF16-140-160	GW-SB-BR-LIF18-110-120
Analyte	**CAS**	**Units**											
1-Methyl-3-Propyl-Cyclohexane	3333-13-9	ug/l								3.5 NJ			
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/l											30 DNJ
1-Phenyl-1-Propyne	673-32-5	ug/l							15 NJ				25 NDJ
2(1H)-Quinolinone, 3-methyl-	2721-59-7	ug/l											
2-(2-Butoxyethoxy)Ethanol	112-34-5	ug/l	5.8 NJ								7 NJ		
2(3H)-Furanone, 5-hexyldihy...	121644-12-0	ug/l											
2,3-Benzofuran	271-89-6	ug/l							2.2 NJ				
2,3-Dihydro-1h-Indene	496-11-7	ug/l							8.8 NJ				23 NDJ
2,3-Dimethyl Naphthalene	581-40-8	ug/l											
2,4-Nonadiyne	63621-15-8	ug/l								2.6 NJ			
2,5-Dimethyl Phenanthrene	3674-66-6	ug/l											
2,7-Dimethyl Naphthalene	582-16-1	ug/l								3.5 NJ			33 NDJ
2-Chlorocyclohexanol	1561-86-0	ug/l		2.4 BNJ			3.4 BNJ	2.8 BNJ	3.3 BNJ	3 BNJ	4.2 NJ	3.5 NJ	
2-Ethyl-1-Hexanol	104-76-7	ug/l				4.8 NJ					2.8 NJ		
2-Ethylhexanoic Acid	149-57-5	ug/l									7.4 NJ		
2-METHYLBENZOFURAN	4265-25-2	ug/l						3.2 NJ	2.9 NJ	4.5 NJ			
2-Methylphenylacetylene	766-47-2	ug/l						14 DNJ					
2-Phenyl Naphthalene	612-94-2	ug/l											17 NDJ
3-Hydroxyphenylacetylene	10401-11-3	ug/l						2.3 NJ					
3'-Methyl-[1,1'-biphenyl]-4...	400744-83-4	ug/l											
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l											
3-Methylbutanoic Acid	503-74-2	ug/l											
3-Methylphenylacetylene	766-82-5	ug/l								26 NJ			
3-Phenylbut-1-ene	934-10-1	ug/l							2.7 NJ	3.7 NJ			
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/l											
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/l											62 NDJ
4-Methyldibenzofuran	7320-53-8	ug/l											26 NDJ
4-Oxononanal	1000314-10-4	ug/l											
4-PHENYLBENZALDEHYDE	3218-36-8	ug/l											
5-Amino-1-naphthol	83-55-6	ug/l											
7H-BENZO[C]CARBAZOLE	205-25-4	ug/l											20 NDJ
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/l											
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Oxoxantho(2,3-G)	84-65-1	ug/l											
9H-Fluoren-3-ol	6344-67-8	ug/l											
9H-Fluorene, 1-methyl-	1730-37-6	ug/l											
9H-Fluorene, 2-methyl-	1430-97-3	ug/l											16 NDJ
9H-Fluorene, 9-methyl-	2523-37-7	ug/l											
Anthracene, 9,10-dihydro-	613-31-0	ug/l											
Azelaic Acid	123-99-9	ug/l										2.6 NJ	
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-YLIDEN	2320-32-3	ug/l											
BENZENE, 1-BUTYNYL-	622-76-4	ug/l											
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l											
Benzeneacetic Acid	103-82-2	ug/l								4.1 NJ			
Benzenesulfonamide, N-butyl-	3622-84-2	ug/l	3.8 NJ			2.5 NJ					20 NJ		
Benzo(a)fluorene	238-84-6	ug/l											
Benzo(b)thiophene, 2,3-dihydro-	4565-32-6	ug/l											
Benzo[b]thiophene	95-15-8	ug/l	3.6 NJ						11 NJ	15 NJ			21 NDJ
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/l											
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/l											
Benzo[C]Thiophene	270-82-6	ug/l						10 DNJ	10 DNJ				22 DNJ
Benzo[e]pyrene	192-97-2	ug/l											
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l											
Benzoic Acid	65-85-0	ug/l				3.2 NJ							
Butyl citrate	77-94-1	ug/l	30 NJ	2.3 NJ	13 NJ	45 NJ	31 NJ			7.6 NJ	19 NJ	24 NJ	
Cyclohexene	110-83-8	ug/l					400 NJ	390 NJ	330 NJ	350 NJ			350 NDJ
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l						11 NJ					
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/l											
Decanedioic acid	111-20-6	ug/l				35 NJ						43 NJ	
Decanoic Acid	334-48-5	ug/l									2.8 NJ	3.1 NJ	
Dibenzothiophene (Synfuel)	132-65-0	ug/l											
Dichlorocyclohexane; trans-1,2-	822-86-6	ug/l											
Dimantine	124-28-7	ug/l											
Dimethyl Anthracene; 9,10-	781-43-1	ug/l											16 NDJ
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l											
Dodecanoic Acid	143-07-7	ug/l										2.4 NJ	
Ethenyl-cyclobutane	2597-49-1	ug/l											
Ethyl Naphthalene; 2-	939-27-5	ug/l											
Ethylidenecyclobutane	1528-21-8	ug/l		230 BNJ									
Fluoranthene, 2-Methyl-	33543-31-6	ug/l											
Heptanal	111-71-7	ug/l											
Heptanoic Acid	111-14-8	ug/l									6.8 NJ	9.5 NJ	
Hexadecanoic Acid	57-10-3	ug/l									7.6 NJ	23 NJ	
Hexanal	66-25-1	ug/l		5.4 NJ									
Hexanoic Acid (Dot)	142-62-1	ug/l											
HEXATHIANE	13798-23-7	ug/l										2 NJ	
Indene	95-13-6	ug/l						15 NJ	13 DNJ	23 DNJ			25 DNJ
Methyl 2,5,8,11,14,17,20-he...	1010366-81-3	ug/l											
Methyl Anthracene; 2-	613-12-7	ug/l											
Methyl Phenanthrene; 2-	2531-84-2	ug/l											31 NDJ
Methyl Pyrene	2381-21-7	ug/l											20 DNJ
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/l								2.9 NJ			
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l											
Naphthalene, 2-(1-methyleth...	2027-17-0	ug/l											
Naphtho[1,2-b]thiophene	234-41-3	ug/l						1.9 NJ	2.1 NJ				29 DNJ
Naphtho[2,1-b]thiophene	233-02-3	ug/l											29 NDJ
Nonanoic Acid	112-05-0	ug/l			15 NJ	23 NJ					64 NJ	49 NJ	
Nonanol	124-19-6	ug/l											
Nonanol; 1-	143-08-8	ug/l				7.8 NJ					3.9 NJ		
Octadecanoic Acid	57-11-4	ug/l									6.3 NJ	8.9 NJ	
Octanoic Acid	124-07-2	ug/l			4.9 NJ	11 NJ					23 NJ	26 NJ	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l								2.5 NJ			
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/l											
Phenanthrene, 9,10-dihydro-	776-35-2	ug/l											
Phenylpropionic Acid; 3-	501-52-0	ug/l								2.2 NJ			
P-Xylene (1,4-Dimethylbenzene)	106-42-3	ug/l									2.6 NJ		
Quinoline, 2-Methyl-	91-63-4	ug/l											
Tetradecanoic Acid	544-63-8	ug/l										3.4 NJ	
Toluene	108-88-3	ug/l	16 NJ				4 NJ			3.6 NJ			

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-12	SB-BR-13	SB-BR-13	SB-BR-13	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF16	SB-BR-LIF18
			Start Depth (ft):	140	120	140	190	83	110	110	120	130	140	110
			Sample:	GW-SB-BR-12-140-160	GW-SB-BR-13-120-140	GW-SB-BR-13-140-150	GW-SB-BR-13-190-200	GW-SB-BR-LIF16-83-110	GW-SB-BR-LIF16-110-120	GW-SB-BR-LIF16-110-120-1	GW-SB-BR-LIF16-120-130	GW-SB-BR-LIF16-130-140	GW-SB-BR-LIF16-140-160	GW-SB-BR-LIF18-110-120
Analyte	**CAS**	**Units**												
Tri(2-Ethylhexyl) Trimellitate	3319-31-1	ug/l				17 NJ						5 NJ		
Tributyl acetylcitrate	77-90-7	ug/l										5 NJ		
Triethylene Glycol	112-27-6	ug/l											2.6 NJ	
Trimethyl Naphthalene; 2,3,6-	829-26-5	ug/l												
Triphenylphosphine Oxide	791-28-6	ug/l	4 NBJ	2.4 NJ										
Unknown-01	UNKNOWN-01	ug/l	2.5 J		2.8 J	2.7 J	3 J	9.4 J	2.5 J	2.8 J	5.9 J	2.5 J	20 NDJ	
Unknown-02	UNKNOWN-02	ug/l	2.7 J		2.6 NJ	20 J	3.7 J		2 J	6.3 J	2.3 J	3.9 J	24 NDJ	
Unknown-03	UNKNOWN-03	ug/l	3.1 J			3.9 J				5.2 J	5.8 J	2 J		
Unknown-04	UNKNOWN-04	ug/l				7 J				2.3 J	2.1 J	3.9 J		
Unknown-05	UNKNOWN-05	ug/l				2.5 J				3.2 J		2.7 J		
Unknown-06	UNKNOWN-06	ug/l				6.2 NJ				17 J		12 J		
Unknown-07	UNKNOWN-07	ug/l				5.3 J				2.6 NJ		190 J		
Unknown-08	UNKNOWN-08	ug/l				4.4 NJ				4.9 J		88 J		
Unknown-09	UNKNOWN-09	ug/l				3.7 J				4 J		17 J		
Unknown-10	UNKNOWN-10	ug/l				4.3 J				3.4 J		200 J		
Unknown-11	UNKNOWN-11	ug/l				2.5 J								
Unknown-12	UNKNOWN-12	ug/l				3 J								
Unknown-13	UNKNOWN-13	ug/l				3.5 J								
Unknown-14	UNKNOWN-14	ug/l				3 J								
Unknown-15	UNKNOWN-15	ug/l				10 J								
Unknown-16	UNKNOWN-16	ug/l				8.4 J								
Unknown-17	UNKNOWN-17	ug/l				2.8 J								
Unknown-18	UNKNOWN-18	ug/l				3.4 J								
Unknown-19	UNKNOWN-19	ug/l				7.4 J								
Unknown-20	UNKNOWN-20	ug/l				2.7 NJ								
Unknown-21	UNKNOWN-21	ug/l				3.5 J								
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l												
Total Petroleum Hydrocarbons	TPH	mg/l												

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22
Start Depth (ft):			130	140	90	100	120	140	120	130	140	150
Sample:			GW-SB-BR-LIF18-130-140	GW-SB-BR-LIF18-140-160	GW-SB-BR-LIF22-90-100	GW-SB-BR-LIF22-100-120	GW-SB-BR-LIF22-120-140	GW-SB-BR-LIF22-140-160	GW-SB-MW-22-120-130	GW-SB-MW-22-130-140	GW-SB-MW-22-140-150	GW-SB-MW-22-150-160
Analyte	**CAS**	**Units**										
Total BTEX			***9.20***	***41.00***	***2.90***	***31.10***	***45.47***	***37.00***	***7.50***	***7.00***	***92.00***	***8.80***
1,1,1-Trichloroethane	71-55-6	ug/l	3.4	0.88 J	25	2.6	5.7	1.6				
1,1-Dichloroethane	75-34-3	ug/l	4.4	1.2	19	5.3	8.3	2.4				
1,1-Dichloroethene	75-35-4	ug/l										
1,2,4-Trimethylbenzene	95-63-6	ug/l	2.2 J			15	1.7 J			3.3	3	6.8
1,2-Dichloroethane	107-06-2	ug/l										
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	1.2 J			7.6	0.9 J					1.8 J
2-Butanone	78-93-3	ug/l										
Acetone	67-64-1	ug/l						7.9 J				
Benzene	71-43-2	ug/l								4.1	1.6 J	2.1 J
Carbon Disulfide	75-15-0	ug/l	3.5		0.73 J							
Chloroform	67-66-3	ug/l										
Chloromethane	74-87-3	ug/l										
cis-1,2-Dichloroethene	156-59-2	ug/l	17	5.4	94	10	43	13				
Dibromochloromethane	124-48-1	ug/l										
Ethylbenzene	100-41-4	ug/l				3.9	0.37 J			3.8	3.7	5.5
Isopropylbenzene	98-82-8	ug/l										0.35 J
M, P Xylenes	179601-23-1	ug/l				15	1.4 J			5.1	3.8	12
Methyl tert-Butyl Ether	1634-04-4	ug/l				1.3 J						
Methylene Chloride	75-09-2	ug/l										
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l				7.4	0.7 J			6.1	4.1	7.6
Styrene	100-42-5	ug/l									0.7 J	
Toluene	108-88-3	ug/l	9.2	41	2.9	4.8	43	37	12	14	9.4	42
trans-1,2-Dichloroethene	156-60-5	ug/l										
Trichloroethene (TCE)	79-01-6	ug/l	4.1	1.4	22		7.3	1.9				
Vinyl Chloride	75-01-4	ug/l				4.9						
Total SVOCs			***271.30***	***16.30***	***26.00***	***1505.70***	***767.80***	***18.00***	***0.00***	***0.00***	***0.00***	***0.00***
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	4.7	1.3 J	26	7.9	9.6	2 J				
1-methylnaphthalene	90-12-0	ug/l	20			110	18					
2-Methylnaphthalene	91-57-6	ug/l	39			150	31					
4-Chloroaniline	106-47-8	ug/l										
4-Methylphenol (P-Cresol)	106-44-5	ug/l										
4-Nitroaniline	100-01-6	ug/l										
Acenaphthene	83-32-9	ug/l	27	2.6 J		140	43					
Acenaphthylene	208-96-8	ug/l				5.8						
Anthracene	120-12-7	ug/l				8	16					
Benzo(a)anthracene	56-55-3	ug/l					26					
Benzo(a)pyrene	50-32-8	ug/l					12					
Benzo(b)fluoranthene	205-99-2	ug/l					16					
Benzo(g,h,i)perylene	191-24-2	ug/l										
Benzo(k)fluoranthene	207-08-9	ug/l					6.3					
Biphenyl (Diphenyl)	92-52-4	ug/l	7.1			37	9.6					
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l						16				
Carbazole	86-74-8	ug/l	3.3 J			23						
Chrysene	218-01-9	ug/l					17					
Dibenz(a,h)anthracene	53-70-3	ug/l										
Dibenzofuran	132-64-9	ug/l	19			92	33					
Fluoranthene	206-44-0	ug/l	11			32	140					
Fluorene	86-73-7	ug/l	20			90	46					
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l					3.30					
Naphthalene	91-20-3	ug/l	74	6.3		640	58					
N-Nitrosodiphenylamine	86-30-6	ug/l										
Phenanthrene	85-01-8	ug/l	39	6.1		150	190					
Phenol	108-95-2	ug/l										
Pyrene	129-00-0	ug/l	7.2			20	93					
Total VOC TICs			***0.00***	***0.00***	***0.00***	***336.50***	***24.00***	***17.40***	***14.30***	***2.30***	***11.00***	***15.62***
(2-methyl-2-propenyl)-Benzene	3290-53-7	ug/l										
(E)-Tetradec-2-enal	51534-36-2	ug/l										
1,2,3,4-Tetramethylbenzene	488-23-3	ug/l										
1,2,3,5-Tetramethylbenzene	527-53-7	ug/l										
1,2,3-Trimethyl Benzene	526-73-8	ug/l										
1,2,4,5-Tetramethylbenzene	95-93-2	ug/l										
1,2-Dimethylindan	17057-82-8	ug/l										
1,3,8-P-Menthatriene	21195-59-5	ug/l										
1,3-Cyclopentadiene, 1,2,3,4-tetramethyl-5-methylene	76089-59-3	ug/l										
1,3-Dimethylnaphthalene	575-41-7	ug/l										
1,4-Dihydro-1,4-Methanonaphthalene	4453-90-1	ug/l										
1,4-DIHYDRONAPHTHALENE	612-17-9	ug/l										
1,5-Dimethyl Naphthalene	571-61-9	ug/l										
1,7-Dimethyl Naphthalene	575-37-1	ug/l										
1-CYCLOPROP-2-EN-1-YL-2-METHYLBENZENE	65051-83-4	ug/l										
1-ETHENYL-3-ETHYLBENZENE	7525-62-4	ug/l					0.55 NDJ					
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l										
1-Ethyl Naphthalene	1127-76-0	ug/l					0.5 NDJ					
1-Ethyl-2,3-Dimethylbenzene	933-98-2	ug/l										
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l					0.5 NDJ					
1-ethylidene- Indene	2471-83-2	ug/l										
1-Ethyltoluene	611-14-3	ug/l				7.9 NDJ						
1-Ethynyl-4-Methylbenzene	766-97-2	ug/l										
1H-Benzimidazole, 5,6-dimet...	582-60-5	ug/l										
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l										
1H-Indene, 2,3-Dihydro-1,1-...	4175-53-5	ug/l										
1h-Indene, 2,3-Dihydro-2,2-Dimethyl-	824-63-5	ug/l										
1H-Indene, 2,3-Dihydro-2-Methyl-	6682-71-9	ug/l										
1H-Indene, Octahydro-, cis-	824-22-6	ug/l				4.9 NDJ	0.85 NDJ					
1-Methyl-1-Cyclohexene	1587-04-8	ug/l										
1-Methyl-2-phenylcyclopropane	3145-76-4	ug/l										
1-Methylindan	767-58-8	ug/l				6.7 NDJ						
1-Methylindene	767-59-9	ug/l										
1-methylnaphthalene	90-12-0	ug/l				23 NDJ			1.6 NDJ		1.3 NJ	0.25 NJ
1-Pentenylbenzene	824-90-8	ug/l										
1-Phenyl-1-Propyne	673-32-5	ug/l										
2-(2-Hydroxyphenyl)buta-1,3...	38865-47-3	ug/l										
2,3-Benzofuran	271-89-6	ug/l				4 NDJ						
2,3-Dihydro-1h-Indene	496-11-7	ug/l				55 NDJ	6.6 NDJ		2.3 NDJ		0.21 NJ	
2,3-Dimethyl Naphthalene	581-40-8	ug/l					0.6 NDJ				0.32 NJ	
2,6-Dimethyl-Napthalene	581-42-0	ug/l					0.75 NDJ					0.13 NJ
2,7-Dimethyl Naphthalene	582-16-1	ug/l										0.1 NJ

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Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22
Start Depth (ft):			130	140	90	100	120	140	120	130	140	150
Sample:			GW-SB-BR-LIF18-130-140	GW-SB-BR-LIF18-140-160	GW-SB-BR-LIF22-90-100	GW-SB-BR-LIF22-100-120	GW-SB-BR-LIF22-120-140	GW-SB-BR-LIF22-140-160	GW-SB-MW-22-120-130	GW-SB-MW-22-130-140	GW-SB-MW-22-140-150	GW-SB-MW-22-150-160
Analyte	**CAS**	**Units**										
2a,4a,6a,6b-Tetrahydrocyclo...	6053-74-3	ug/l										
2-Decenal, (Z)-	2497-25-8	ug/l										
2-ETHENYL-1,3,5-TRIMETHYLBENZENE	769-25-5	ug/l										
2-Ethyl-1,3-Dimethyl Benzene	2870-04-4	ug/l										
2-Ethyl-1,4-Dimethyl Benzene	1758-88-9	ug/l										
2-METHYLBENZOFURAN	4265-25-2	ug/l				5.4 NDJ						
2-METHYLINDENE	2177-47-1	ug/l										
2-Methylnaphthalene	91-57-6	ug/l									0.72 NJ	0.33 NJ
2-Octenal, (E)-	2548-87-0	ug/l										
3,5-Dimethyl-1-Ethylbenzene	934-74-7	ug/l										
3a,6-Methano-3aH-indene, 2,...	98640-29-0	ug/l										
3-Hydroxyphenylacetylene	10401-11-3	ug/l										
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l										
3-METHYLBUT-2-EN-2-YLBENZENE	769-57-3	ug/l										
3-phenyl-2-propenal	104-55-2	ug/l										
3-Phenyl-2-propyn-1-ol	1504-58-1	ug/l										
3-Phenylbut-1-ene	934-10-1	ug/l										
4-Ethyl-1,2-Dimethyl Benzene	934-80-5	ug/l										
4-Ethyltoluene	622-96-8	ug/l										
5-Methylbenzimidazole	614-97-1	ug/l										
Azulene	275-51-4	ug/l										
Benzene, (1-methyl-1-propen... (02)	767-99-7	ug/l										
BENZENE, (1-METHYL-1-PROPENYL)-, (E)-	768-00-3	ug/l										
Benzene, (2-Methyl-1-Propenyl)-	768-49-0	ug/l										
Benzene, 1-ethenyl-4-ethyl-	7/7/3454	ug/l										
Benzene, 1-Ethyl-2,4-Dimethyl	874-41-9	ug/l										
Benzene, 2-Butenyl	1560-06-1	ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l										
Benzo[b]thiophene	95-15-8	ug/l										
Benzo[C]Thiophene	270-82-6	ug/l				6.7 NDJ						
BENZOCYCLOHEPTATRIENE	264-09-5	ug/l										
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l					0.6 NDJ					
Biphenyl (Diphenyl)	92-52-4	ug/l										
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l										
Cymene	99-87-6	ug/l										
Decyl Aldehyde	112-31-2	ug/l						0.22 NDJ				
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l										
Ethyl Acetate	141-78-6	ug/l							2.6 NDJ	1.2 NDJ		
Ethyl Naphthalene; 2-	939-27-5	ug/l										
Furan, 2-pentyl-	3777-69-3	ug/l										
Heptanal	111-71-7	ug/l									0.2 NJ	
Hexanal	66-25-1	ug/l						3.8 NDJ			0.57 NJ	
Indene	95-13-6	ug/l				37 NDJ	3.9 NDJ					
M-Cymene	535-77-3	ug/l					0.25 NDJ					
Naphthalene	91-20-3	ug/l				160 NDJ		0.86 NDJ	6.7 NDJ		1.5 NJ	0.6 NJ
Naphthalene, 1,2,3,4-tetrah...	1985-59-7	ug/l				5.2 NDJ						
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l										
NAPHTHALENE, 2-ETHENYL-	827-54-3	ug/l										
N-Butyraldehyde	123-72-8	ug/l									0.1 NJ	
Nonanol	124-19-6	ug/l					1.3 NDJ	4.9 NDJ			2.1 NJ	10 NJ
Octanal	124-13-0	ug/l						1.5 NDJ			0.53 NJ	2.6 NJ
O-Cymene (O-Isopropyltoluene)	527-84-4	ug/l										
Propylene	115-07-1	ug/l									0.53 NJ	0.39 NJ
Total Alkane Tics	E966796	ug/l						0.14 DJ				
Unknown-01	UNKNOWN-01	ug/l				5.1 NDJ	1.4 DJ	1.5 DJ	1.1 DJ	1.1 DJ	0.53 J	0.17 BJ
Unknown-02	UNKNOWN-02	ug/l				3.6 NDJ	0.35 BDJ	0.28 DJ			0.22 BJ	0.1 J
Unknown-03	UNKNOWN-03	ug/l				12 NDJ	0.95 DJ	0.42 BDJ			0.08 J	0.05 J
Unknown-04	UNKNOWN-04	ug/l					1.2 BDJ	0.16 DJ			0.31 J	0.1 J
Unknown-05	UNKNOWN-05	ug/l					0.45 BDJ	0.16 DJ			0.1 J	0.14 J
Unknown-06	UNKNOWN-06	ug/l					0.3 DJ	0.34 DJ				0.12 J
Unknown-07	UNKNOWN-07	ug/l					0.3 DJ				0.09 J	0.12 J
Unknown-08	UNKNOWN-08	ug/l					0.35 DJ	0.96 DJ			0.1 J	0.06 J
Unknown-09	UNKNOWN-09	ug/l					0.6 NDJ	0.7 DJ			0.46 J	0.06 J
Unknown-10	UNKNOWN-10	ug/l					0.55 DJ	0.1 DJ			0.07 J	0.08 J
Unknown-11	UNKNOWN-11	ug/l					0.5 DJ	0.18 DJ			0.12 J	0.05 J
Unknown-12	UNKNOWN-12	ug/l					0.65 DJ	0.14 DJ			0.07 J	0.09 J
Unknown-13	UNKNOWN-13	ug/l						0.16 DJ			0.07 J	0.08 J
Unknown-14	UNKNOWN-14	ug/l						0.12 DJ			0.23 J	
Unknown-15	UNKNOWN-15	ug/l						0.12 DJ			0.16 J	
Unknown-16	UNKNOWN-16	ug/l						0.3 DJ			0.24 NJ	
Unknown-17	UNKNOWN-17	ug/l						0.22 DJ			0.07 J	
Unknown-18	UNKNOWN-18	ug/l						0.12 DJ				
Total SVOC TICs			1193.8	533	283.4	0	178.8	297.6	0	0	0	0
1,1'-BIPHENYL, 2-METHYL-	643-58-3	ug/l										
1,1'-Biphenyl, 4-methyl-	644-08-6	ug/l					3.9 NJ					
1,1'-METHYLENEBIS-BENZENE	101-81-5	ug/l										
1,2,3-Trimethyl Benzene	526-73-8	ug/l										
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	2.6 NJ									
1,3-Dimethylnaphthalene	575-41-7	ug/l										
1,4-Benzenedicarboxylic aci...	6422-86-2	ug/l						12 NJ				
1,5-Dimethyl Naphthalene	571-61-9	ug/l										
1,6,7-Trimethyl-Napthalene	2245-38-7	ug/l										
1,7-Dimethyl Naphthalene	575-37-1	ug/l										
11h-Benzo[b]Fluorene	243-17-4	ug/l					6.5 NJ					
12-Hydroxystearic acid	106-14-9	ug/l			4.9 NJ							
1-Acenaphthenol	6306-07-6	ug/l										
1-Butenyl-(E)-Benzene	1005-64-7	ug/l										
1-Ethenyl-2-Methyl-Benzene	611-15-4	ug/l	3.6 NJ									
1-Ethenyl-4-Ethylbenzene	3454-07-7	ug/l										
1-Ethyl Naphthalene	1127-76-0	ug/l										
1-Ethyl-3-Methyl Benzene	620-14-4	ug/l										
1-Ethyltoluene	611-14-3	ug/l										
1-Heptadecanol	1454-85-9	ug/l										
1-Hexanol	111-27-3	ug/l										
1H-Indazole, 3-methyl-	1000316-00-2	ug/l										
1H-INDENE 2,3-DIHYDRO-5-METHYL-	874-35-1	ug/l										
1H-Indene, Octahydro-, cis-	824-22-6	ug/l										
1-Iodo-2-Methylundecane	1855-47-6	ug/l										

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22
Start Depth (ft):			130	140	90	100	120	140	120	130	140	150
Sample:			GW-SB-BR-LIF18-130-140	GW-SB-BR-LIF18-140-160	GW-SB-BR-LIF22-90-100	GW-SB-BR-LIF22-100-120	GW-SB-BR-LIF22-120-140	GW-SB-BR-LIF22-140-160	GW-SB-MW-22-120-130	GW-SB-MW-22-130-140	GW-SB-MW-22-140-150	GW-SB-MW-22-150-160
Analyte	**CAS**	**Units**										
1-Methyl-3-Propyl-Cyclohexane	3333-13-9	ug/l										
1-Methyloctyl Ester Butanoic Acid	832-69-9	ug/l										
1-Phenyl-1-Propyne	673-32-5	ug/l										
2(1H)-Quinolinone, 3-methyl-	2721-59-7	ug/l										
2-(2-Butoxyethoxy)Ethanol	112-34-5	ug/l		2.8 NJ								
2(3H)-Furanone, 5-hexyldihy...	121644-12-0	ug/l						2.2 NJ				
2,3-Benzofuran	271-89-6	ug/l										
2,3-Dihydro-1h-Indene	496-11-7	ug/l										
2,3-Dimethyl Naphthalene	581-40-8	ug/l										
2,4-Nonadiyne	63621-15-8	ug/l										
2,5-Dimethyl Phenanthrene	3674-66-6	ug/l					9.2 NJ					
2,7-Dimethyl Naphthalene	582-16-1	ug/l					10 NJ					
2-Chlorocyclohexanol	1561-86-0	ug/l	3.4 BNJ	2.9 BNJ	3.9 BNJ							
2-Ethyl-1-Hexanol	104-76-7	ug/l										
2-Ethylhexanoic Acid	149-57-5	ug/l		2.5 NJ								
2-METHYLBENZOFURAN	4265-25-2	ug/l										
2-Methylphenylacetylene	766-47-2	ug/l										
2-Phenyl Naphthalene	612-94-2	ug/l					10 NJ					
3-Hydroxyphenylacetylene	10401-11-3	ug/l										
3'-Methyl-[1,1'-biphenyl]-4...	400744-83-4	ug/l										
3-METHYLBENZOTHIOPHENE	1455-18-1	ug/l										
3-Methylbutanoic Acid	503-74-2	ug/l										
3-Methylphenylacetylene	766-82-5	ug/l										
3-Phenylbut-1-ene	934-10-1	ug/l										
4-(4-Methylphenyl)benzaldehyde	36393-42-7	ug/l										
4h-Cyclopenta[Def]Phenanthrene	203-64-5	ug/l	3.2 NJ				35 NJ					
4-Methyldibenzofuran	7320-53-8	ug/l	2.7 NJ				11 NJ					
4-Oxononanal	1000314-10-4	ug/l										
4-PHENYLBENZALDEHYDE	3218-36-8	ug/l										
5-Amino-1-naphthol	83-55-6	ug/l										
7H-BENZO[C]CARBAZOLE	205-25-4	ug/l										
7-Oxabicyclo[2.2.1]heptane	279-49-2	ug/l										
9-(Hydroxymethyl)-6,11-Dihydroxy-12-Oxoxantho(2,3-G)	84-65-1	ug/l										
9H-Fluoren-3-ol	6344-67-8	ug/l										
9H-Fluorene, 1-methyl-	1730-37-6	ug/l					8.3 NJ					
9H-Fluorene, 2-methyl-	1430-97-3	ug/l										
9H-Fluorene, 9-methyl-	2523-37-7	ug/l										
Anthracene, 9,10-dihydro-	613-31-0	ug/l										
Azelaic Acid	123-99-9	ug/l						4.8 NJ				
BENZENE, [1-(2,4-CYCLOPENTADIEN-1-YLIDEN	2320-32-3	ug/l										
BENZENE, 1-BUTYNYL-	622-76-4	ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	2039-89-6	ug/l										
Benzeneacetic Acid	103-82-2	ug/l										
Benzenesulfonamide, N-butyl-	3622-84-2	ug/l	2.5 NJ				13 NJ	5.3 NJ				
Benzo(a)fluorene	238-84-6	ug/l					4.8 NJ					
Benzo(b)thiophene, 2,3-dihydro-	4565-32-6	ug/l										
Benzo[b]thiophene	95-15-8	ug/l										
BENZO[B]THIOPHENE, 4-METHYL-	14315-11-8	ug/l										
Benzo[b]thiophene, 5-methyl-	14315-14-1	ug/l										
Benzo[C]Thiophene	270-82-6	ug/l	2.8 NJ									
Benzo[e]pyrene	192-97-2	ug/l					4.9 NJ					
BENZOFURAN, 7-METHYL-	17059-52-8	ug/l										
Benzoic Acid	65-85-0	ug/l										
Butyl citrate	77-94-1	ug/l	27 NJ		5.5 NJ		5.9 NJ	28 NJ				
Cyclohexene	110-83-8	ug/l	190 NJ		230 NJ							
CYCLOPENTA[C]THIAPYRAN	270-63-3	ug/l										
Cycloprop[a]indene, 1,1a,6,...	15677-15-3	ug/l										
Decanedioic acid	111-20-6	ug/l	32 NJ	19 NJ	3.3 NJ							
Decanoic Acid	334-48-5	ug/l	3.1 NJ	2.9 NJ								
Dibenzothiophene (Synfuel)	132-65-0	ug/l					12 NJ					
Dichlorocyclohexane; trans-1,2-	822-86-6	ug/l										
Dimantine	124-28-7	ug/l						3.5 NJ				
Dimethyl Anthracene; 9,10-	781-43-1	ug/l										
Dimethyl Naphthalene; 1,4-	571-58-4	ug/l										
Dodecanoic Acid	143-07-7	ug/l										
Ethenyl-cyclobutane	2597-49-1	ug/l										
Ethyl Naphthalene; 2-	939-27-5	ug/l										
Ethylidenecyclobutane	1528-21-8	ug/l						140 NJ				
Fluoranthene, 2-Methyl-	33543-31-6	ug/l										
Heptanal	111-71-7	ug/l										
Heptanoic Acid	111-14-8	ug/l	8.6 NJ	5.9 NJ								
Hexadecanoic Acid	57-10-3	ug/l	20 NJ	24 NJ								
Hexanal	66-25-1	ug/l										
Hexanoic Acid (Dot)	142-62-1	ug/l			4 NJ		5.6 NJ					
HEXATHIANE	13798-23-7	ug/l										
Indene	95-13-6	ug/l	3.3 NJ									
Methyl 2,5,8,11,14,17,20-he...	1010366-81-3	ug/l		5.1 NJ								
Methyl Anthracene; 2-	613-12-7	ug/l					4.7 NJ					
Methyl Phenanthrene; 2-	2531-84-2	ug/l										
Methyl Pyrene	2381-21-7	ug/l										
m-Xylene (1,3-Dimethylbenzene)	108-38-3	ug/l		3 NBJ								
Naphthalene, 1,6-Dimethyl-	575-43-9	ug/l	4 NJ									
Naphthalene, 2-(1-methyleth...	2027-17-0	ug/l										
Naphtho[1,2-b]thiophene	234-41-3	ug/l										
Naphtho[2,1-b]thiophene	233-02-3	ug/l										
Nonanoic Acid	112-05-0	ug/l	48 NJ	32 NJ	7.2 NJ		12 NJ	13 NJ				
Nonanol	124-19-6	ug/l										
Nonanol; 1-	143-08-8	ug/l										
Octadecanoic Acid	57-11-4	ug/l	8.6 NJ	7.8 NJ								
Octanoic Acid	124-07-2	ug/l	26 NJ	21 NJ	3.6 NJ		5.3 NJ	7.7 NJ				
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l										
Phenaleno[1,9-bc]thiophene	79965-99-4	ug/l					4 NJ					
Phenanthrene, 9,10-dihydro-	776-35-2	ug/l										
Phenylpropionic Acid; 3-	501-52-0	ug/l										
P-Xylene (1,4-Dimethylbenzene)	106-42-3	ug/l										
Quinoline, 2-Methyl-	91-63-4	ug/l										
Tetradecanoic Acid	544-63-8	ug/l										
Toluene	108-88-3	ug/l						9.2 NJ				

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 4-12
Packer Groundwater Sample Results (Detected Compounds)
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-LIF18	SB-BR-LIF18	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-BR-LIF22	SB-MW-22	SB-MW-22	SB-MW-22	SB-MW-22
Start Depth (ft):			130	140	90	100	120	140	120	130	140	150
Sample:			GW-SB-BR-LIF18-130-140	GW-SB-BR-LIF18-140-160	GW-SB-BR-LIF22-90-100	GW-SB-BR-LIF22-100-120	GW-SB-BR-LIF22-120-140	GW-SB-BR-LIF22-140-160	GW-SB-MW-22-120-130	GW-SB-MW-22-130-140	GW-SB-MW-22-140-150	GW-SB-MW-22-150-160
Analyte	**CAS**	**Units**										
Tri(2-Ethylhexyl) Trimellitate	3319-31-1	ug/l						3.6 NJ				
Tributyl acetylcitrate	77-90-7	ug/l						34 NJ				
Triethylene Glycol	112-27-6	ug/l										
Trimethyl Naphthalene; 2,3,6-	829-26-5	ug/l										
Triphenylphosphine Oxide	791-28-6	ug/l										
Unknown-01	UNKNOWN-01	ug/l	3.2 J	6.1 J	21 J		5.8 NJ	2.7 J				
Unknown-02	UNKNOWN-02	ug/l	2.9 J	54 J			6.9 NJ	9.8 J				
Unknown-03	UNKNOWN-03	ug/l	2.4 J	95 J				3.7 J				
Unknown-04	UNKNOWN-04	ug/l	2.4 J	66 J				2.3 J				
Unknown-05	UNKNOWN-05	ug/l	4.3 J	13 J				3.6 J				
Unknown-06	UNKNOWN-06	ug/l	27 J	170 J				3.9 J				
Unknown-07	UNKNOWN-07	ug/l	110 J					2.4 J				
Unknown-08	UNKNOWN-08	ug/l	3.2 J					3.4 J				
Unknown-09	UNKNOWN-09	ug/l	200 J					2.5 J				
Unknown-10	UNKNOWN-10	ug/l	37 J									
Unknown-11	UNKNOWN-11	ug/l	410 J									
Unknown-12	UNKNOWN-12	ug/l										
Unknown-13	UNKNOWN-13	ug/l										
Unknown-14	UNKNOWN-14	ug/l										
Unknown-15	UNKNOWN-15	ug/l										
Unknown-16	UNKNOWN-16	ug/l										
Unknown-17	UNKNOWN-17	ug/l										
Unknown-18	UNKNOWN-18	ug/l										
Unknown-19	UNKNOWN-19	ug/l										
Unknown-20	UNKNOWN-20	ug/l										
Unknown-21	UNKNOWN-21	ug/l										
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l										
Total Petroleum Hydrocarbons	TPH	mg/l				2.48 J						

J The value is an estimated quantity.
J+/J-The value is an estimated quantity likely to have a high or low bias.
D The sample has been diluted.
N The result shows an analyte "tentatively identified" and the result is approximate.

Table 5-1
Direct and Indirect Indications of NAPL
GCL Tie and Treating Superfund Site
Sidney, New York

Well ID	Direct Indications of NAPL		Indirect Indications of NAPL		
Sample ID	Historic NAPL	Recent (PDI) NAPL	Effective Solubility (2 or more compounds >100%)	Molar Fractions (<=1.0 umol/L)	Total SVOCs (ug/L)
Bedrock Packer Groundwater Samples					
GW-SB-BR-01-100-120		X	X	X	6,233.50
GW-SB-BR-10-135-140		X	X	X	4,448.00
GW-SB-BR-02-90-100		X	X	X	2,918.80
GW-SB-BR-LIF18-110-120		X	X	X	2,528.00
GW-SB-BR-02-100-108.5			X	X	2,341.80
GW-SB-BR-LIF22-100-120		X	X	X	1,505.70
GW-SB-BR-01-120-140		X	X	X	1,063.20
GW-SB-BR-11-110-120			X	X	958.90
GW-SB-BR-11-120-140			X	X	941.80
GW-SB-BR-07-100-120			X	X	840.30
GW-SB-BR-LIF22-120-140			X	X	767.80
GW-SB-BR-07-120-140			X	X	752.20
GW-SB-BR-02-80-90			X	X	657.70
GW-SB-BR-11-140-160			X	X	651.70
GW-SB-BR-02-110-120			X	X	550.40
GW-SB-BR-05-100-120			X	X	406.80
GW-SB-BR-10-125-135			X	X	399.10
GW-SB-BR-LIF16-120-130					380.20
GW-SB-BR-LIF16-110-120					327.00
GW-SB-BR-10-115-125			X	X	308.10
GW-SB-BR-10-105-115					299.30
GW-SB-BR-01-85-100			X	X	290.00
GW-SB-BR-LIF18-130-140			X	X	271.30
GW-SB-BR-03-120-140			X	X	265.90
GW-SB-BR-07-90-100			X	X	236.90
GW-SB-BR-02-120-140		X	X	X	230.73
GW-SB-BR-01-140-160			X	X	203.30
GW-SB-BR-05-90-100			X	X	190.20
GW-SB-BR-04-140-160					171.90
GW-SB-BR-05-120-130		X			141.70
GW-SB-BR-12-115-140					118.20
GW-SB-BR-05-130-140					88.80
GW-SB-BR-03-150-160					81.10
GW-SB-BR-04-120-130					54.40
GW-SB-BR-02-140-160					48.30
GW-SB-BR-03-90-100					38.70
GW-SB-BR-LIF16-130-140					38.60
GW-SB-BR-03-110-120					32.90
GW-SB-BR-06-100-120					31.90
GW-SB-BR-LIF22-90-100					26.00
GW-SB-BR-03-100-110					24.80
GW-SB-BR-04-130-140					20.50
GW-SB-BR-LIF16-83-110					20.00
GW-SB-BR-12-140-160					18.80
GW-SB-BR-LIF18-140-160					16.30
GW-SB-BR-LIF22-140-160					16.00
GW-SB-BR-13-140-150					14.40
GW-SB-BR-13-190-200					13.67
GW-SB-BR-06-120-140					8.00
GW-SB-BR-06-70-90					7.90
GW-SB-BR-13-120-140					6.50
GW-SB-BR-06-140-160					6.30
GW-SB-BR-01-75-85					6.00
GW-SB-BR-06-90-100					4.81
GW-SB-BR-LIF16-140-160					4.50
GW-SB-BR-03-140-150					1.40
GW-SB-BR-10-140-160		X			-
GW-SB-MW-22-120-130					-
GW-SB-MW-22-130-140					-
GW-SB-MW-22-140-150					-
GW-SB-MW-22-150-160					-

=Direct Indications of NAPL
=Indirect Indications of NAPL

An indirect indication of NAPL was identified if total SVOCs is greater than 190 ug/L, a compound exceeded the 100% for two or more compounds in groundwater samples collected from packer groundwater samples or if a compound with an aqueous solubility of less than or equal to 1.0 µmol/L was detected in a groundwater sample.

GW-SB-BR-05-120-130 and GW-SB-BR-10-140-160 were not considered direct indications of NAPL as the total SVOC concentration was low (<190 ug/L).

Table 5-1
Direct and Indirect Indications of NAPL
GCL Tie and Treating Superfund Site
Sidney, New York

Well ID	Direct Indications of NAPL		Indirect Indications of NAPL		
Sample ID	Historic NAPL	Recent (PDI) NAPL	Effective Solubility (2 or more compounds >1%)	Molar Fractions (<=1.0 umol/L)	Total SVOCs (ug/L)
BedrockMonitoring Wells					
MW-03B	X	X	NA	NA	NAPL
MW-07D	X	X	NA	NA	NAPL
MW-07B	X	X	NA	NA	NAPL
MW-18B		X	NA	NA	NAPL
EW-1B	X				NAPL
EW-2B	X				NAPL
MW-12B			X	X	434.00
MW-22B			X	X	344.40
MW-21B			X	X	49.10
MW-20B			X		20.30
MW-08B				X	12.00
MW-17B					9.80
MW-13B				X	6.60
MW-10B					-
MW-11B					-
MW-19B					1.90
MW-05D					NS
MW-14B					NS
MW-15B					NS
Shallow Water Bearing Unit					
PZ-02S	X	X	NA	NA	NAPL
MW-03S	X	X	NA	NA	NAPL
MW-17S	X	X	NA	NA	NAPL
PZ-01I					9.3
MW-01S					3
PZ-03S					ND
MW-02S					ND
MW-07S					ND
Intermediate Water Bearing Unit					
PZ-02I		X	NA	NA	NAPL
MW-17I	X	X	NA	NA	NAPL
MW-22I		X	X		5747.7
MW-12I			X		156.2
MW-03I			X		79.8
EW-1I			X		30
MW-13I					11
MW-01D					10
MW-08DI					7.6
EW-4I					7.4
MW-21I				X	5.4
EW-5I					1.3
EW-2I					1.1
EW-3I					0
MW-02I					0
MW-07I					0
MW-10I					0
MW-11I					0

=Direct Indications of NAPL

=Indirect Indications of NAPL

An indirect indication of NAPL was identified if a compound exceeded the 1% for two or more compounds in groundwater samples collected from packer groundwater samples or if a compound with an aqueous solubility of less than or equal to 1.0 µmol/L was detected in a groundwater sample.

Table 6-1
Estimated SVOC Mass in Shallow and Intermediate Water Bearing Units
GCL Tie and Treating Superfund Site
Sidney, New York

Area	Zone	Size of Area (ft^2)	Area Vertical Interval (ft)	Total Volume of Area (ft^3)	Total Volume of Area (CY)	Total Weight of Soil (kg)	Boring Location	LIF Impact Vert Invt (ft)	Avg LIF Vert Int (ft)	Estimated Impacted Volume of Area(ft^3)	Estimated Impacted Volume of Area(CY)	Estimated Weight of Impacted Soil (kg)	Avg Total SVOCs in Soil Boring (mg/kg)*	Avg Total SVOCs in Area (mg/kg) in Area	Mass of SVOCs (Dissolved/Aqueous Phase)		
															Mass of SVOCs in Vert. Imp. Int. (mg)	Mass of SVOCs Vert. Imp. Int.(kg)	Mass of SVOCs Vert. Imp. Int. (lbs)
Southwestern Area	Red	7,005	5	35,025	1,297	1,882,944	LIF-01	1	2	10,508	389	564,883	500	500	282,441,600	282	621
							LIF-02	2					500				
	Dark Blue	9,646	32	308,672	11,432	16,594,207	LIF-03	6	7	67,522	2,501	3,629,983	500	3,717	13,493,129,768	13,493	29,685
							LIF-04	3					500				
							LIF-12	12					500				
							SB-BR-03	-					10,231				
							SB-BR-02	-					6,854				
	Light Blue	26,107	21	548,247	20,305	29,473,759	LIF-10	7	11	274,124	10,153	14,736,879	500	3,109	45,816,957,930	45,817	100,797
							LIF-18/SB-BR-18	14					5,718				
	Orange	9,720	11	106,920	3,960	5,748,019	LIF-24	2	5	43,740	1,620	2,351,462	500	500	1,175,731,200	1,176	2,587
							LIF-19	7					500				
Northwestern Area	Pink - North	18,712	40	748,480	27,721	40,238,285	LIF-15	4	4	74,848	2,772	4,023,828	500	500	2,011,914,240	2,012	4,426
													500				
	Pink-South	18,802	50	940,100	34,819	50,539,776	LIF-11	2	6	119,079	4,410	6,401,705	500	1,550	9,920,508,786	9,921	21,825
							LIF-26	9					500				
							SB-BR-05	-					1,933				
							LIF-22/SB-BR-22	8					3,266				
	Yellow	4,141	5	20,705	767	1,113,101	LIF-23	1	1	4,141	153	222,620	500	500	111,310,080	111	245

Total Southwestern Area	60,768,260,498	60,768	133,690
Total Northwestern Area	12,043,733,106	12,044	26,496
TOTAL	72,811,993,605	72,812	160,186

Note: To estimate the approximate mass of NAPL in the overburden the estimated concentration of SVOCs detected in soil samples at a concentration of 500 mg/kg or greater were multiplied by the estimated impacted volume of each colored zone of estimated NAPL impact. In areas where soil sample data was not available and only LIF data exists it was assumed that a LIF fluorescence of greater than 50% is approximately equal to 500 mg/kg total SVOCs in soil. Where soil sample data and/or LIF fluorescence response was not consistently higher than 500 mg/kg or 50% for the entire vertical interval of for the boring location an estimated vertical impact interval was used to better represent the estimated vertical extent of the NAPL impacts. SVOC concentrations in soil and vertical impacted intervals were averaged across each colored zone. The estimated unit weight of soil was assumed to be 1.6 tons/CY. Colors used in "Zone" column correspond to similarly colored areas on Figure 6-1.

Unit weight of soil (ton/cy): 1.6

Unit weight of soil (kg/cy): 1452

ft= feet
ft^2 = square feet
ft^3 = cubic feet
CY=cubic yard
kg=kilogram
mg=milligram
lbs=pounds

Table 6-2
Estimated SVOC Mass in Bedrock Water Bearing Unit
GCL Tie and Treating Superfund Site
Sidney, New York

									Mass of SVOCs (Dissolved/Aqueous Phase)				Mass of SVOCs (NAPL/Non-Aqueous Phase)	
Area	NAPL Extent	Approximate SVOC Concentration (ug/L)	Area (ft^2)	Vertical Interval (ft)	Total Volume (ft^3)	Total Volume (CY)	Fracture Volume (ft^3)	Fracture Volume (L)	Mass of SVOCs (ug)	Mass of SVOCs (g)	Mass of SVOCs (lbs)	Mass of SVOCs (kg)[1]	Mass of SVOCs (lbs)	Mass of SVOCs (kg)
Southwest Area	Confirmed/Probable	1,000	26,399	50	1,319,950	48,887	131,995	3,738,098	3,738,098,400	3,738	8	4	8,646	3,921
				Total Southwest Area:	**1,319,950**	**48,887**	**131,995**		**Total:**	**3,738**	**8**	**4**	**8,646**	**3,921**
Northeast Area A	Confirmed/Probable	1,000	10,516	25	262,900	9,737	26,290	744,533	744,532,800	745	2	1	1,722	781
Northeast Area B	Confirmed/Probable	1,000	34,329	40	1,373,160	50,858	137316	3,888,789	3,888,789,120	3,889	9	4	8,995	4,079
				Total Northeast Area A+B:	**1,636,060**	**60,595**	**163,606**		**Total Northeast Area A+B:**	**4,633**	**10**	**5**	**10,717**	**4,860**
				Total SW and NE Areas:	**2,956,010**	**109,482**	**295,601**		**Total SW and NE Areas:**	**8,371**	**18**	**8**	**19,363**	**8,781**

									Mass of SVOCs (Dissolved/Aqueous Phase)				Mass of SVOCs (NAPL/Non-Aqueous Phase)	
Area	NAPL Extent	Approximate SVOC Concentration (ug/L)	Area (ft^2)	Vertical Interval (ft)[3]	Total Volume (ft^3)	Total Volume (CY)	Fracture Volume (ft^3)	Fracture Volume (L)	Mass of SVOCs (ug)	Mass of SVOCs (g)	Mass of SVOCs (lbs)	Mass of SVOCs (kg)[1]	Mass of SVOCs (lbs)	Mass of SVOCs (kg)
Light Grey Area - Additional Area	Potential	200	117,788	17	2,002,396	74,163	200,240	5,670,785	1,134,157,094	1,134	2	1	13,116	5,948
Light Grey Area - Total Including Other Areas	Potential	200	189,032	29	5,481,928	203,034	548,193	15,524,820	3,104,964,019	3,105	7	3	35,908	16,285
				Total:	**7,484,324**	**277,197**	**748,432**	**21,195,606**	**Total:**	**4,239**	**9**	**4**	**49,024**	**22,233**

Bedrock Effective Porosity (%):[2]
10%

Estimated Pore Volume occupied by NAPL		
	10%	of Effective Porosity

Estimated Creosote NAPL Density:	
65.5	lb/ft^3

Notes:

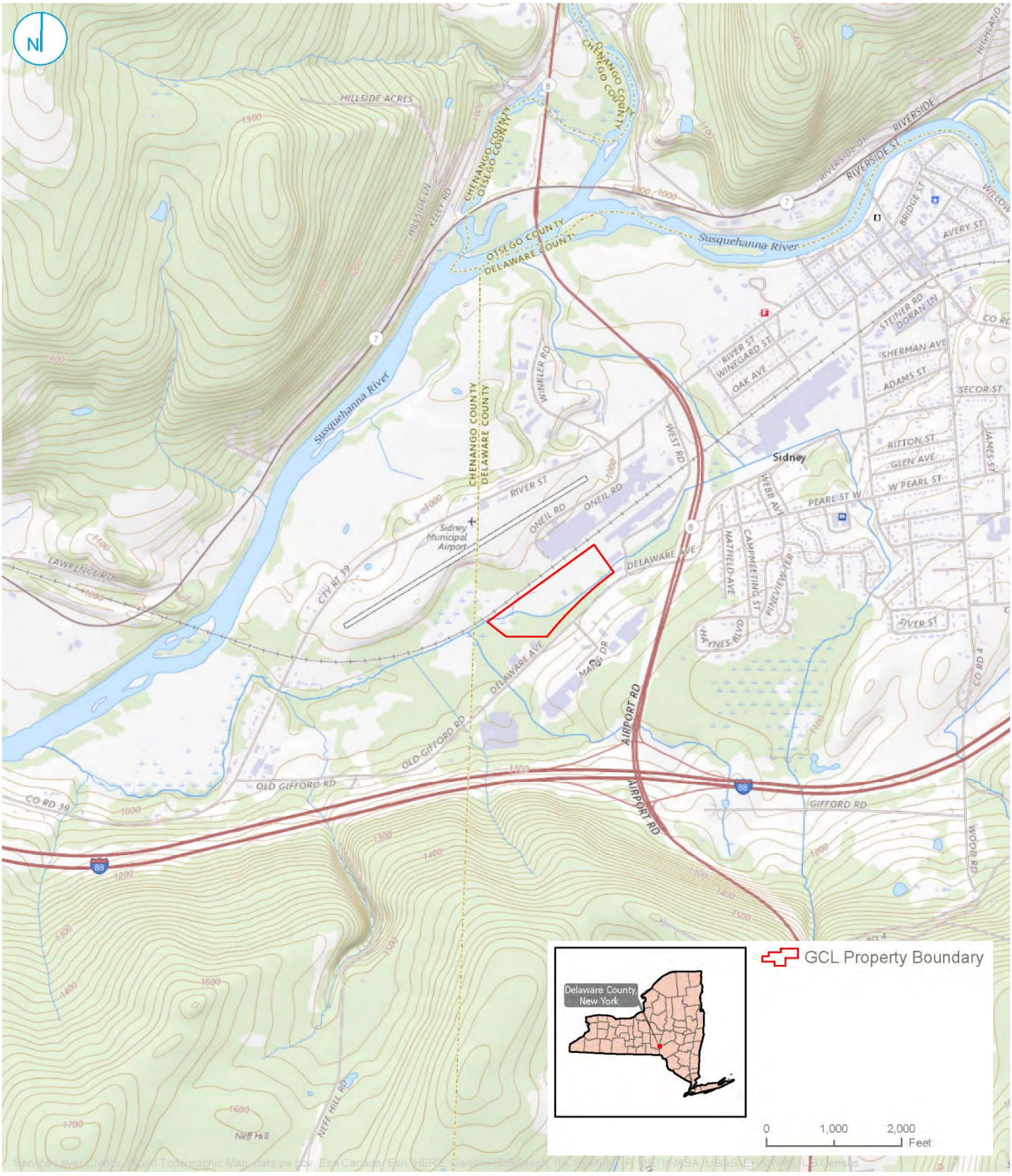
[1] To estimate the approximate mass of NAPL in aqueous phase the approximate bedrock concentration of SVOCs detected in the groundwater packer samples were multiplied by the approximate pore space volume of the areas of estimated NAPL extent shown on Figure 6-10. For the confirmed/probable NAPL extent areas an average concentration of approximately 1,000 ug/L was used and for the potential NAPL extent area an average concentration of approximately 200 ug/L was used.

[2] Based on typical porosity of similar bedrock geologic formations the effective porosity of the bedrock at the site was assumed to be 10%.

[3] The vertical interval of the potential NAPL extent area shown on Figure 6-9 was estimated based on where the groundwater packer samples showed an approximate concentration of SVOCs of 200ug/L. Note the vertical interval for the potential NAPL extent area is an average over the entire area and likely varies across the site. The vertical interval may or may not be continuous throughout the potential NAPL impact area.

g=grams
ug=micrograms
kg=kilogram
L=liter
ft^2 = square feet
ft^3 = cubic feet
CY=cubic yard
lbs=pounds

FIGURES



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Figure 1-1
Site Location Map



Source: C2S2

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Figure 2-1
LIF Boring Location Map



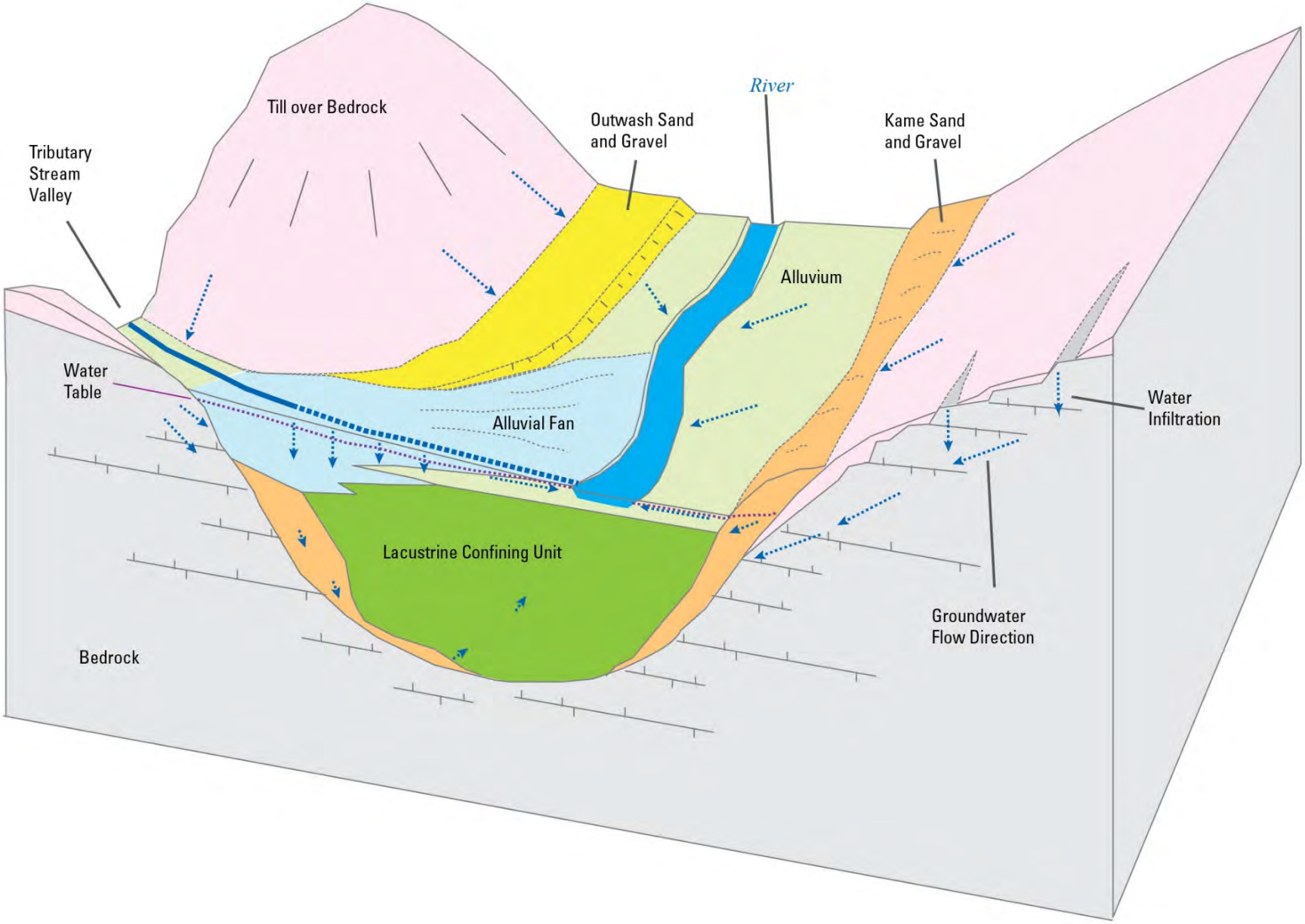
Source: C2S2

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Figure 2-2
Bedrock Boring Location Map

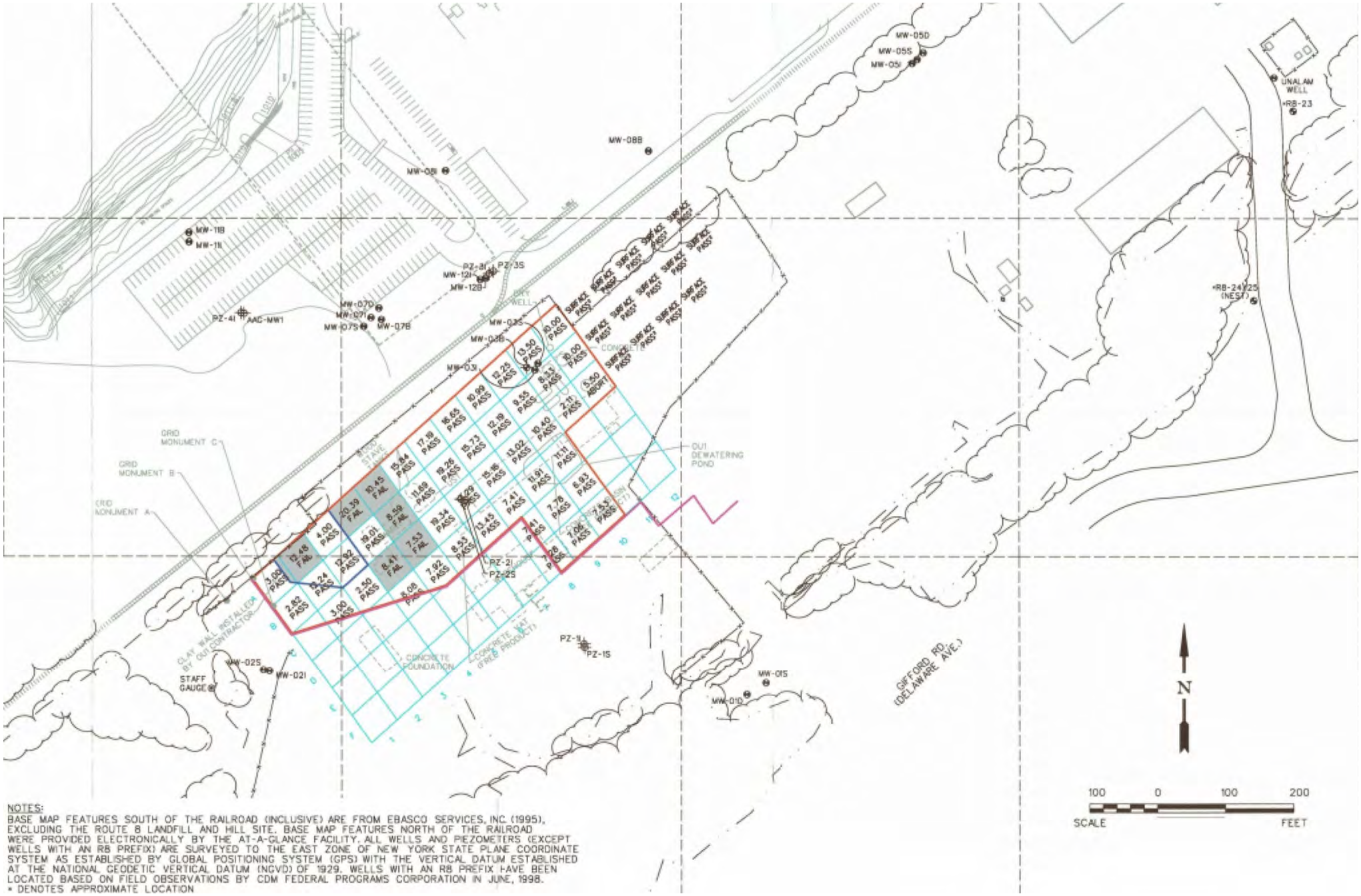


Figure 2-3
Monitoring Well Location Map



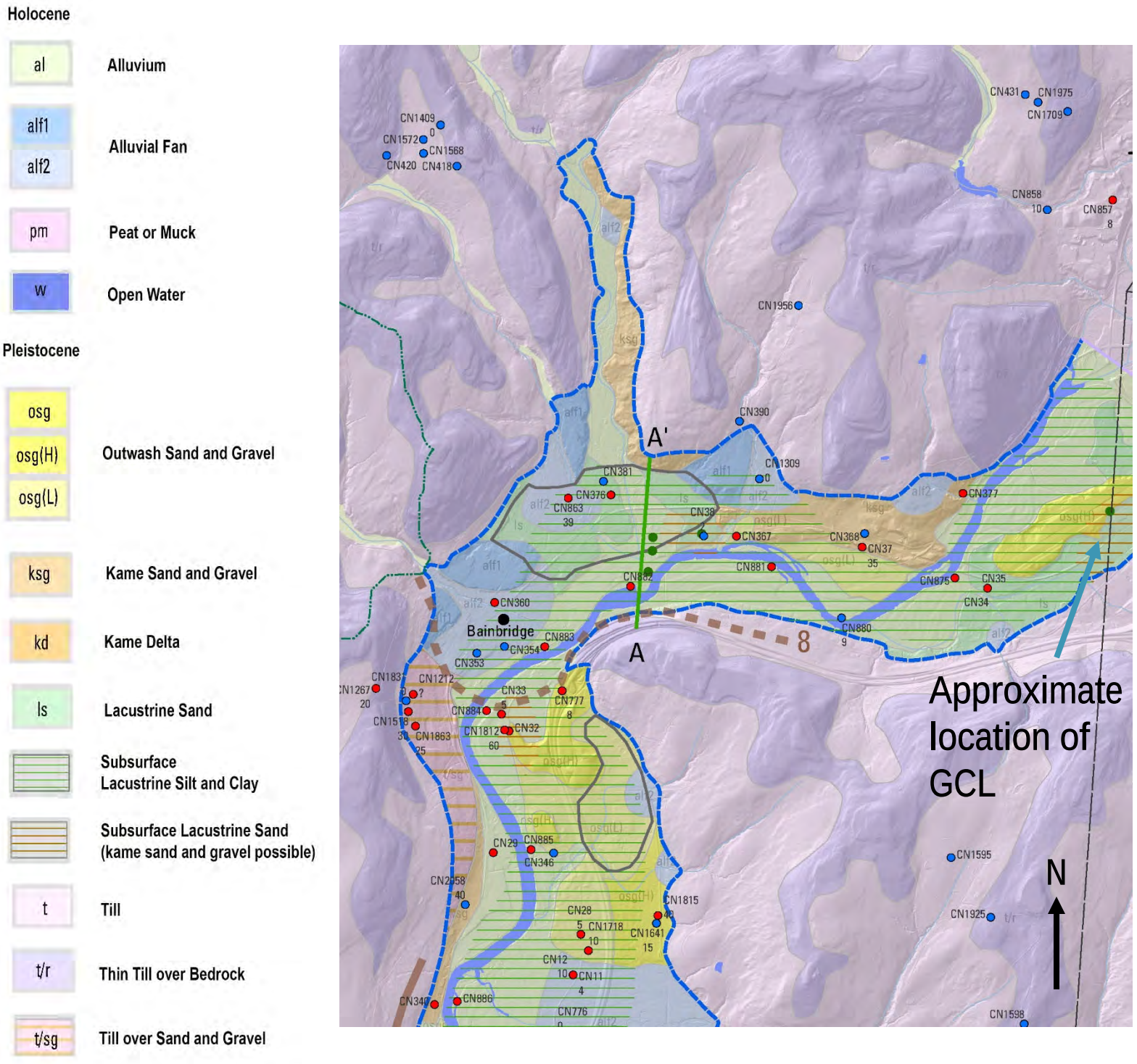
Source: USGS Site Investigations Report (2012-5282)

Figure 3-1
Conceptual Diagram of the Susquehanna River Valley Geology



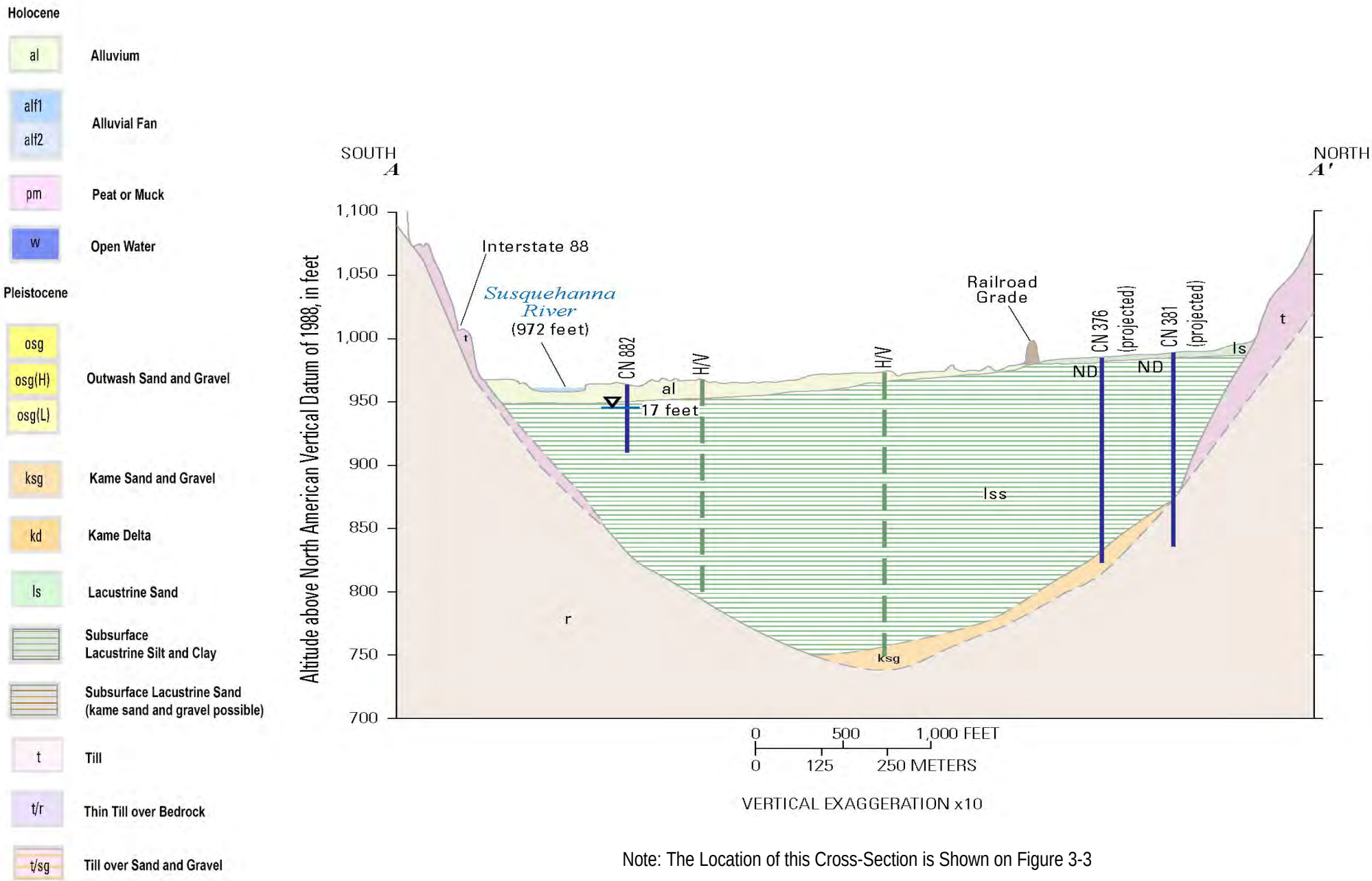
Source: CH2M Hill March 2000, Working Figure during OU1 Remediation of Site Soils.

Figure 3-2
Soil Remediation Area During the Interim Remedial Action



Source: : USGS Site Investigations Report (2012-5282)

Figure 3-3
Regional Geology of the Susquehanna River Valley



Note: The Location of this Cross-Section is Shown on Figure 3-3

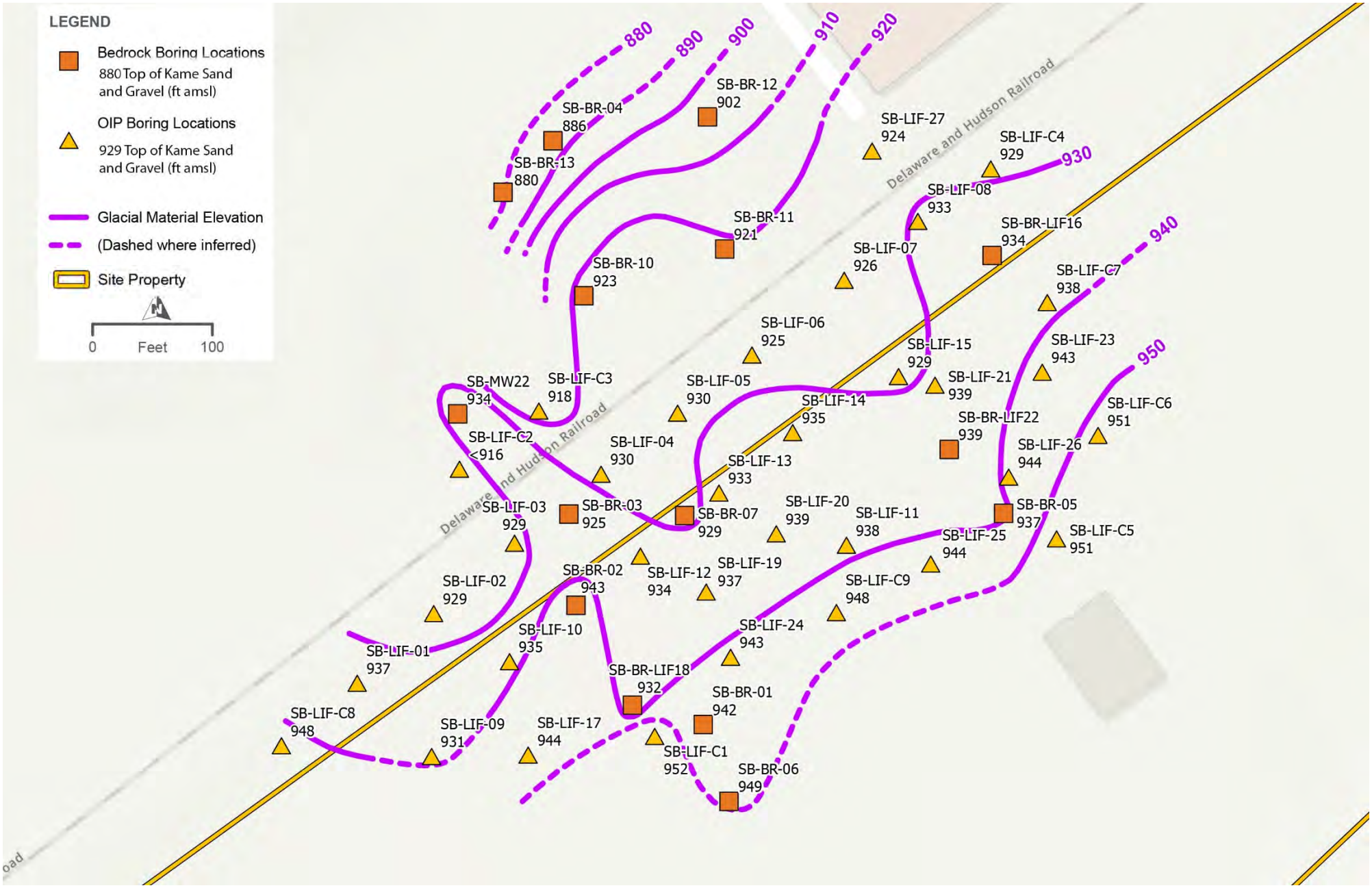
Source: USGS Site Investigations Report (2012-5282)

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PATH: -----

Figure 3-4

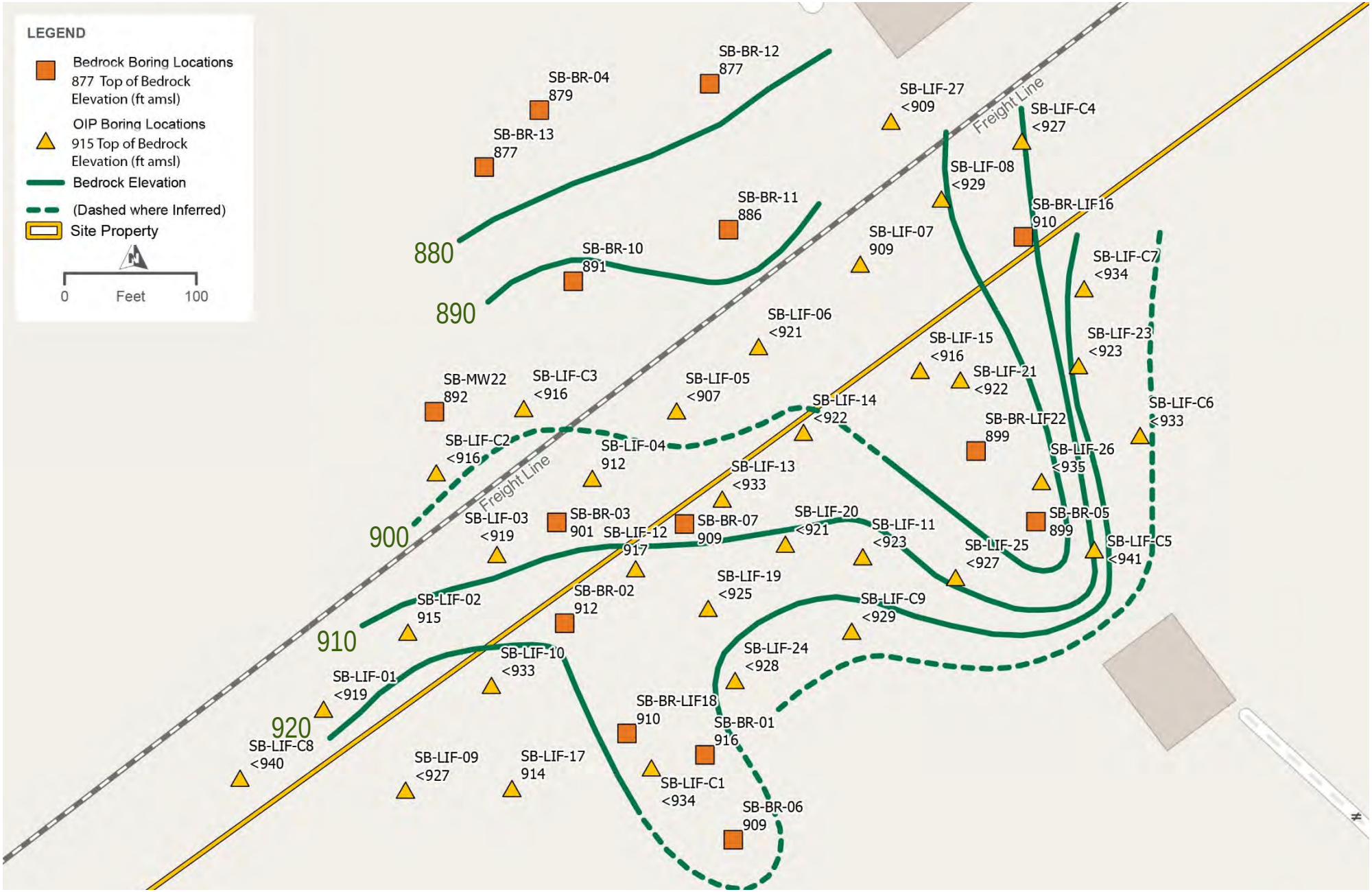
Generalized Geologic Cross-Section of Susquehanna River Valley A-A'



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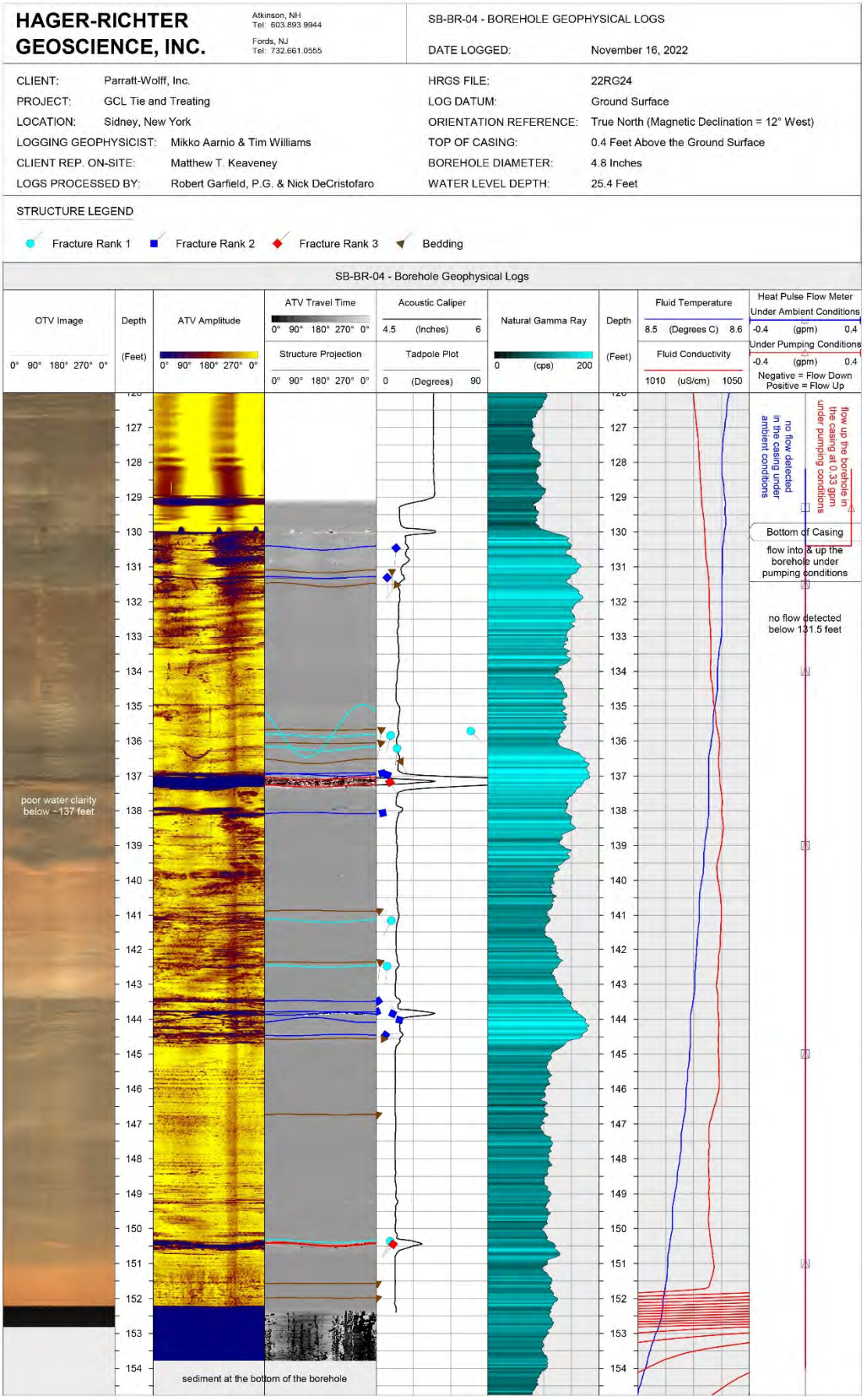
Figure 3-5

Structural Contour Map of Kame Sand and Gravel Deposits



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Figure 3-6
Structural Contour Map of Bedrock



Source: Hager-Richter Geoscience, Inc.

Figure 3-7
Borehole Geophysical Log of SB-BR-04

HAGER-RICHTER GEOSCIENCE, INC.

Atkinson, NH
Tel: 603.893.9944

Fords, NJ
Tel: 732.661.0555

ALL BOREHOLES - BEDROCK STRUCTURE STATISTICS PLOTS WITH CONTOURED STEREOGRAMS

DATE(S) LOGGED: September 2022 to January 2023

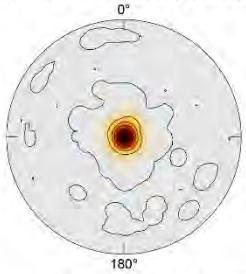
CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	ORIENTATION REFERENCE:	True North
LOCATION:	Sidney, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

Fracture Rank 1 ■ Fracture Rank 2 ◆ Fracture Rank 3 ◀ Bedding

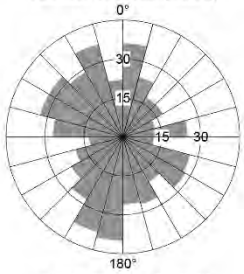
Stereogram - Lower Hemisphere of Fractures	Dip Azimuth Rose Diagram of Fractures	Dip Angle Histogram of Fractures	Stereogram - Lower Hemisphere of Bedding	Dip Azimuth Rose Diagram of Bedding	Dip Angle Histogram of Bedding

Schmidt Plot - LH - Bedrock Structures



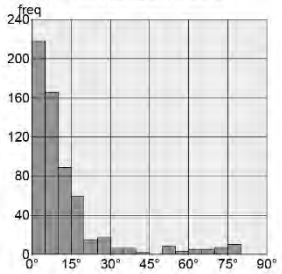
	Counts	Dip[deg]	Azi[deg]
Mean	616	12.17	256.68
●	349	14.62	334.97
◆	48	12.18	223.46
■	219	8.41	217.14

Azimuth - Absolute (Count)



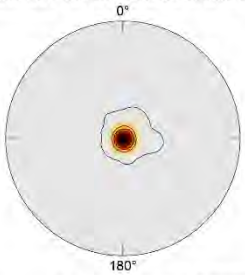
Components:	Azimuth
Counts:	616.00
Mean (2D):	256.68
Std.Dev.:	131.60
Min:	0.00
Max:	360.00

Dip Histogram (Count)



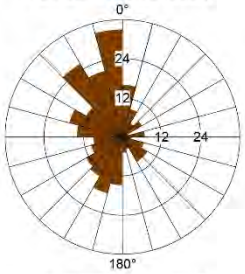
Counts:	616.00
Mean (2D):	12.17
Std.Dev.:	15.49
Min:	0.00
Max:	78.85

Schmidt Plot - LH - Bedrock Structures



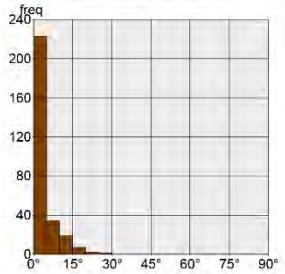
	Counts	Dip[deg]	Azi[deg]
Mean	286	4.07	303.20
▸	286	4.07	303.20

Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	286.00
Mean (2D):	303.20
Std.Dev.:	91.75
Min:	0.00
Max:	358.60

Dip Histogram (Count)



Counts:	286.00
Mean (2D):	4.07
Std.Dev.:	4.20
Min:	0.00
Max:	25.29

Source: Hager-Richter Geoscience, Inc.

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Figure 3-8
Borehole Geophysical Log Summary Statistics

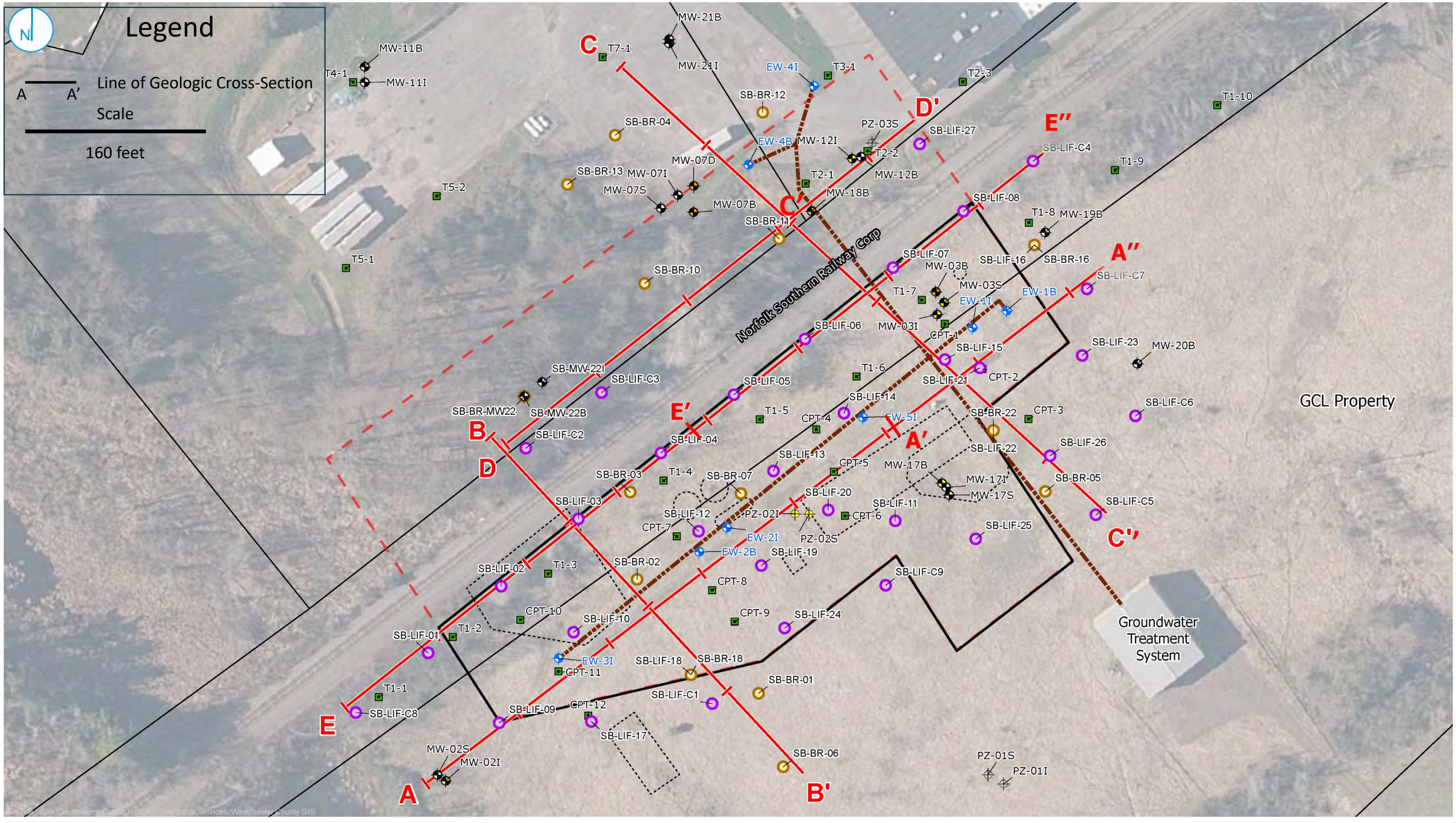
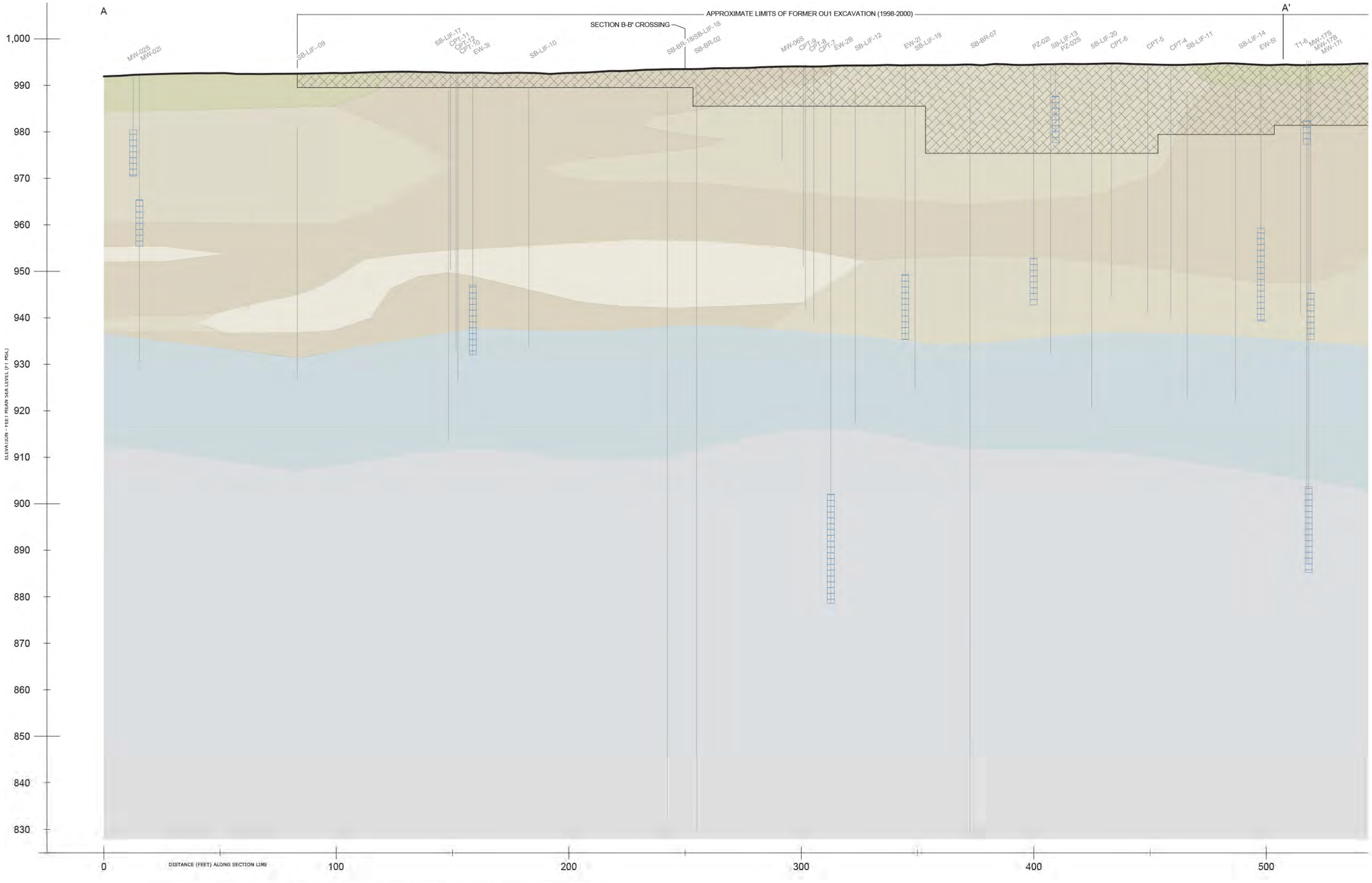


Figure 3-9
Lines of Geologic Cross-Sections

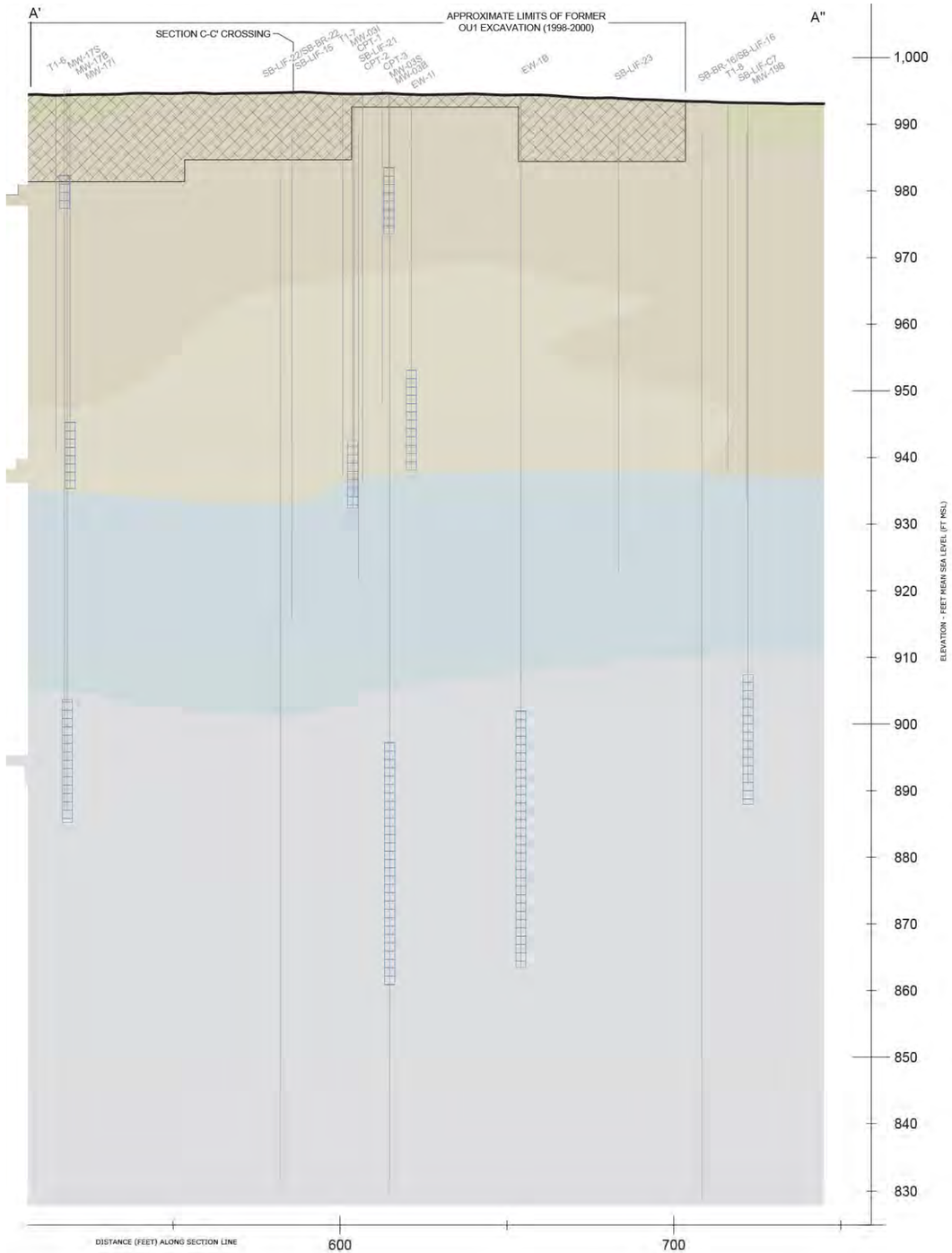


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Figure 3-10

Geologic Cross-Section A-A'



LEGEND

BORING / WELL LOCATION

MONITORING WELL SCREEN

GROUND SURFACE (as elevation in ft msl)

APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)

FILL

SILT AND CLAY

SAND

GRAVEL / COBBLES

KAME

BEDROCK

NOTES

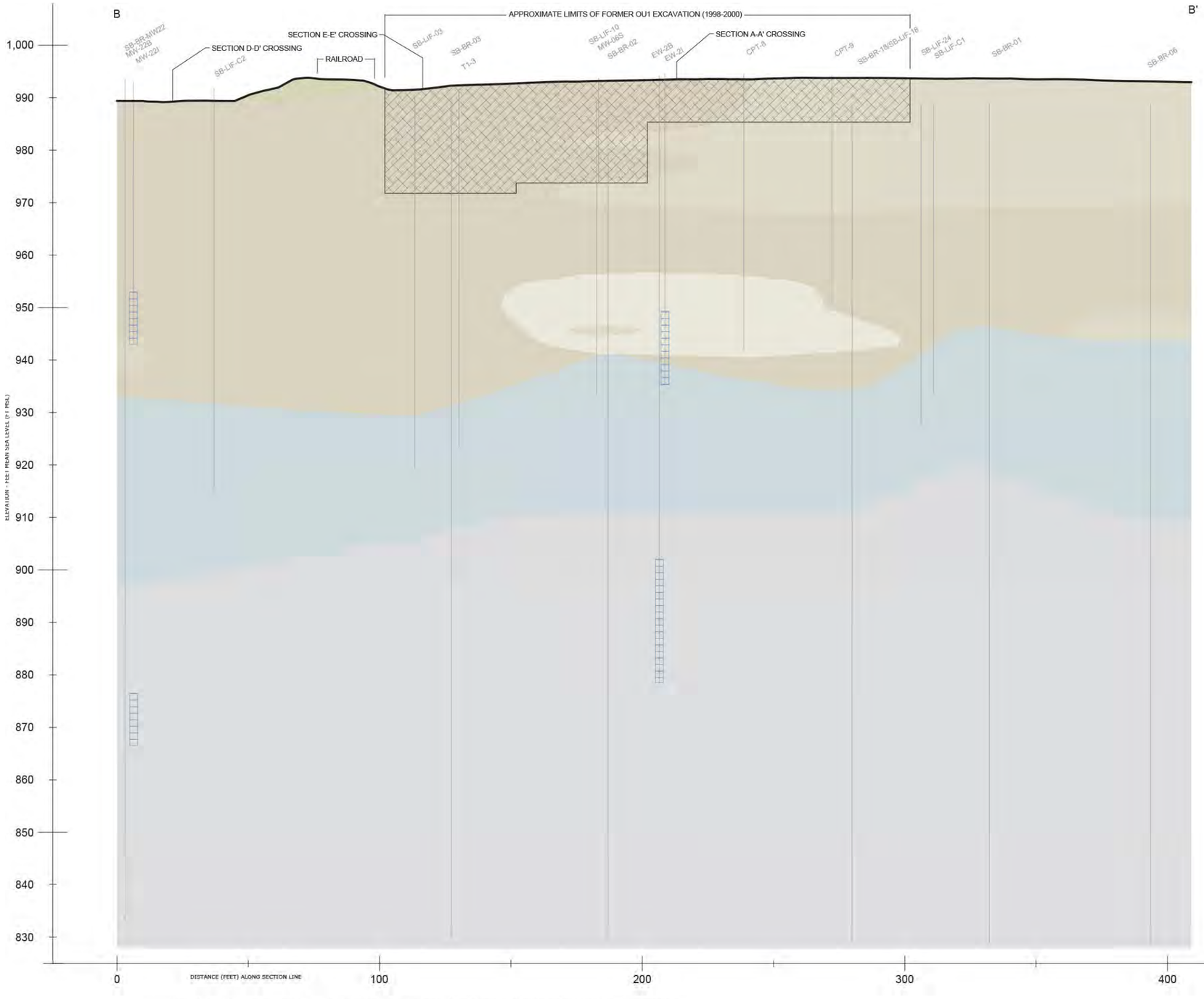
1. Boring locations depicted may not match the ground surface due to locations being projected to the profile line.

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Figure 3-11

Geologic Cross-Section A'-A"



LEGEND

MW-07S — BORING / WELL LOCATION

MONITORING WELL SCREEN

GROUND SURFACE (as elevation in ft msl)

APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)

FILL

SILT AND CLAY

SAND

GRAVEL / COBBLES

KAME

BEDROCK

NOTES

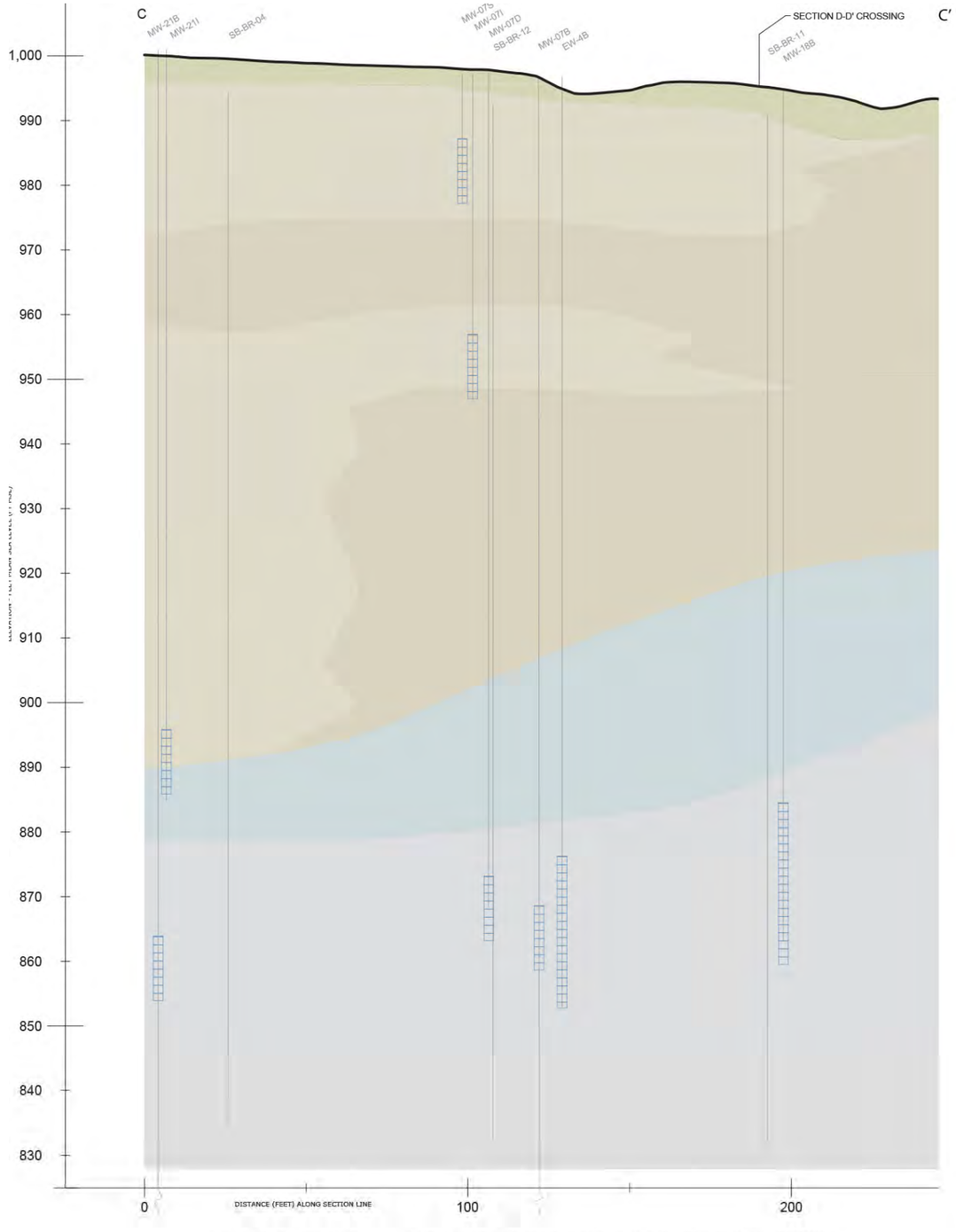
1. Boring locations depicted may not match the ground surface due to locations being projected to the profile line.

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Figure 3-12

Geologic Cross-Section B-B'

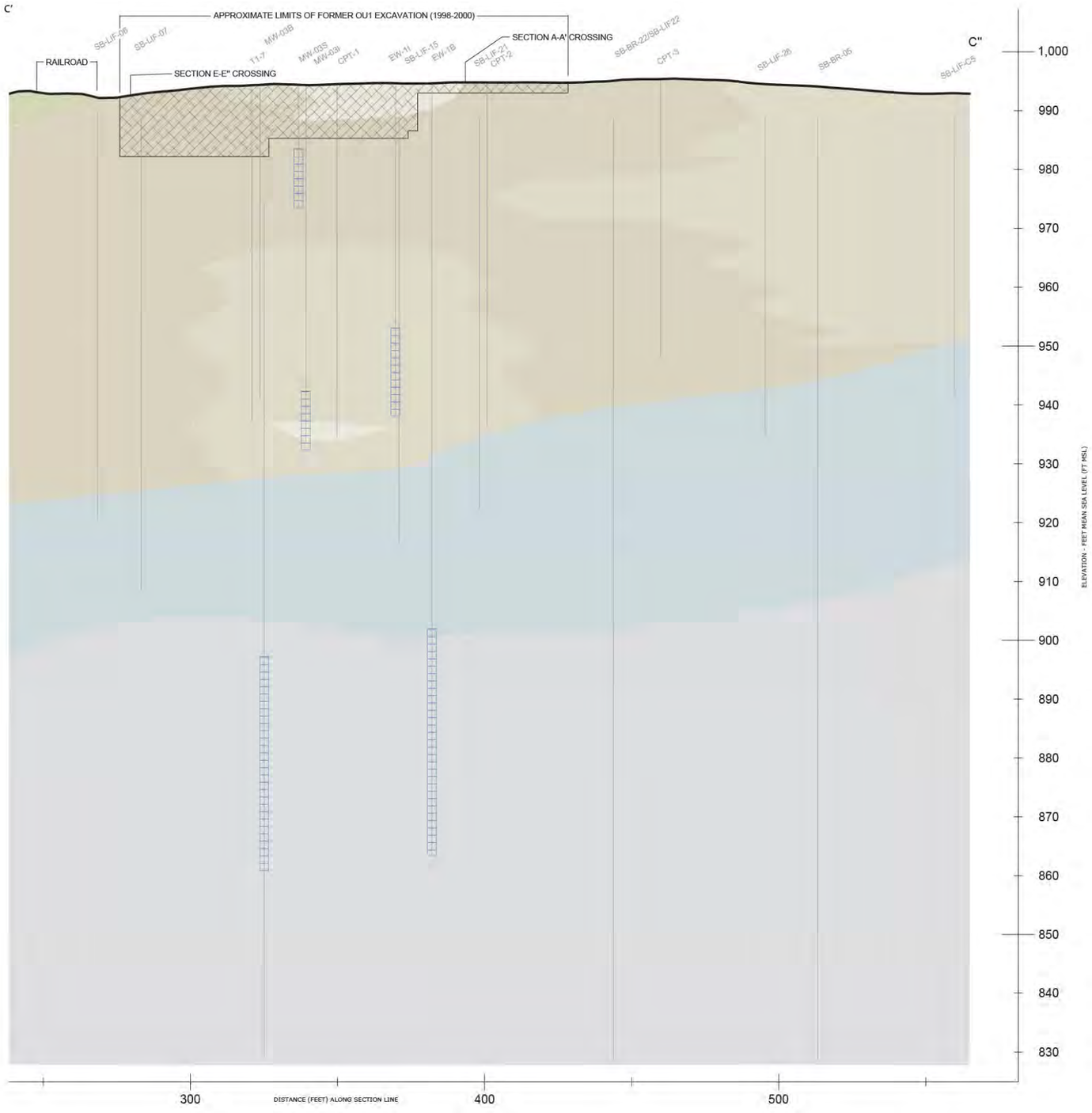


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Figure 3-13

Hydrogeologic Cross-Section C-C'



LEGEND

MW-07S BORING / WELL LOCATION

MONITORING WELL SCREEN

GROUND SURFACE (as elevation in ft msl)

APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)

FILL

SILT AND CLAY

SAND

GRAVEL / COBBLES

KAME

BEDROCK

NOTES

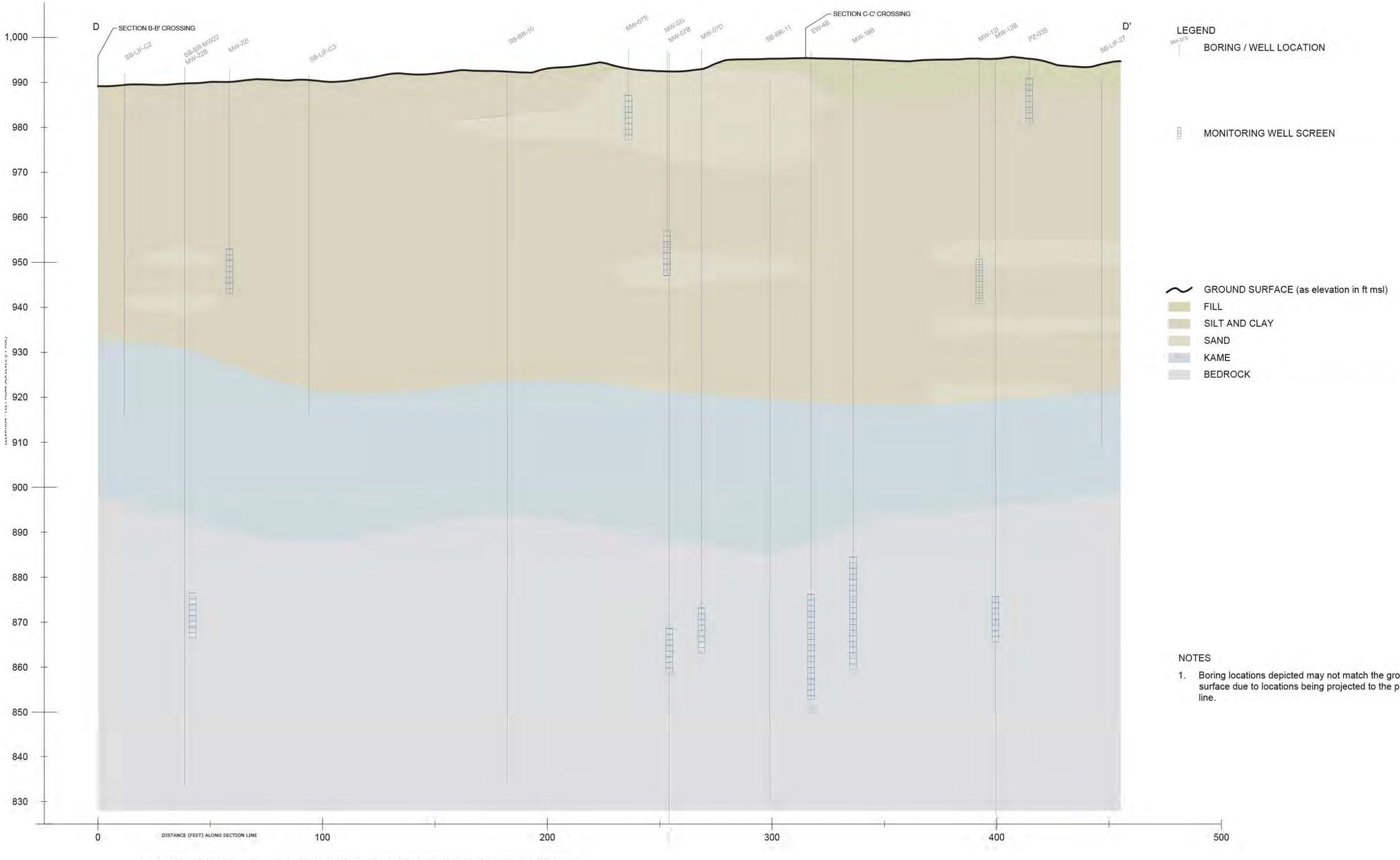
1. Boring locations depicted may not match the ground surface due to locations being projected to the profile line.

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Figure 3-14

Geologic Cross-Section C'-C"



NOTES

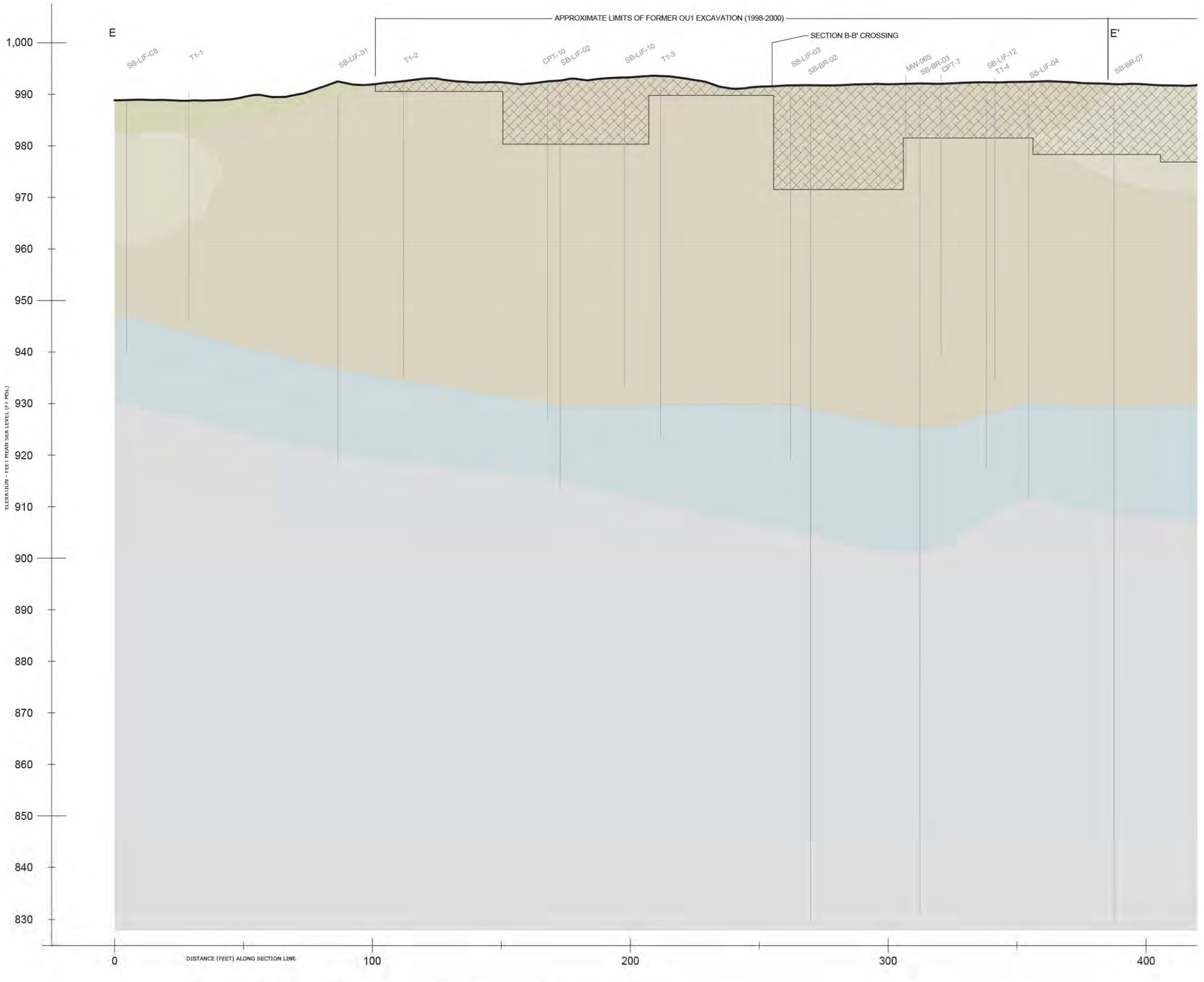
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Figure 3-15

Geologic Cross-Section D-D'

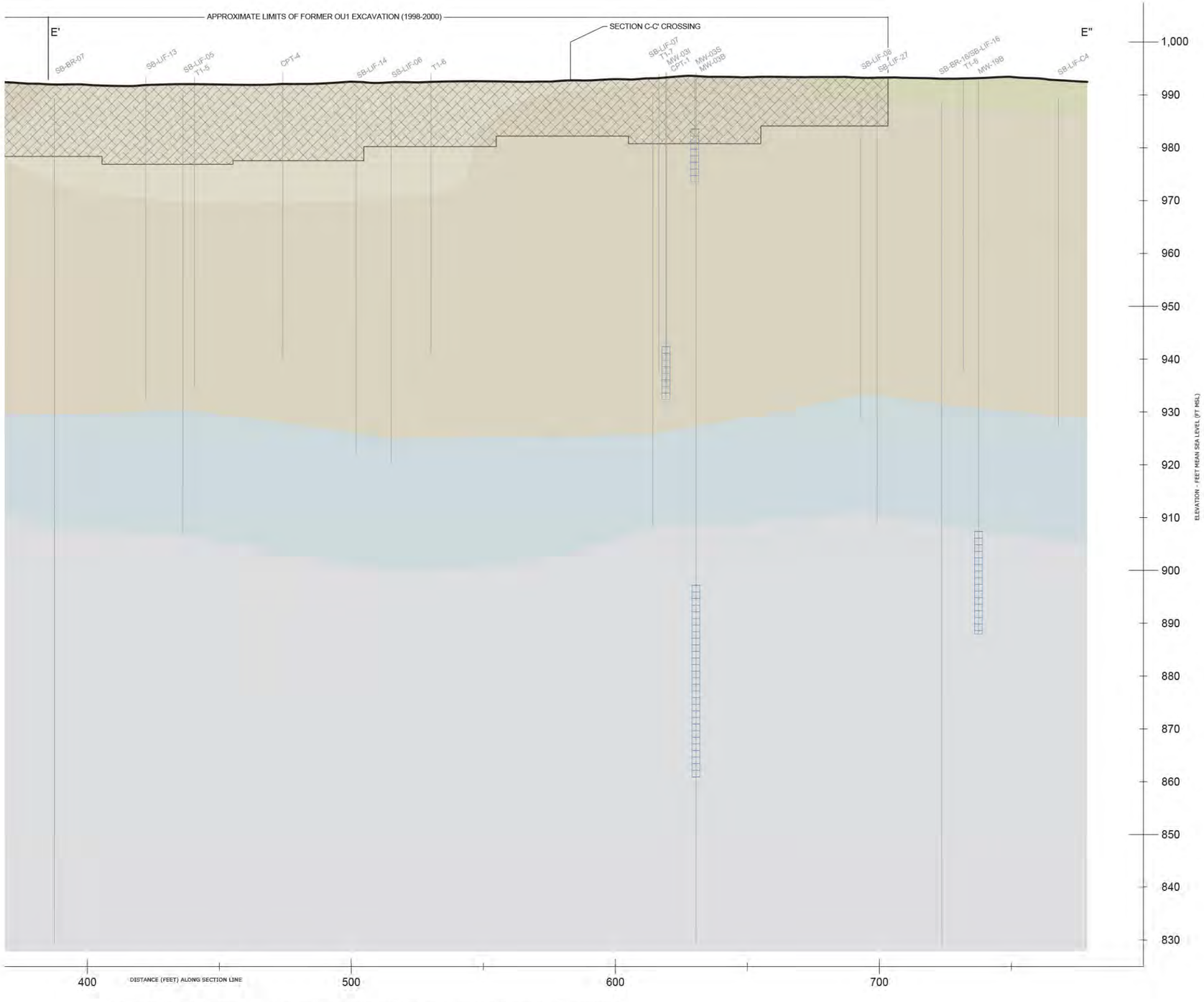


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Figure 3-16

Geologic Cross-Section E-E'



LEGEND

MW-07S — BORING / WELL LOCATION

MONITORING WELL SCREEN

GROUND SURFACE (as elevation in ft msl)

APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)

FILL

SILT AND CLAY

SAND

KAME

BEDROCK

NOTES

1. Boring locations depicted may not match the ground surface due to locations being projected to the profile line.

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Figure 3-17

Geologic Cross-Section E'-E"



HDR OBG a joint venture

Figure 3-18

Potentiometric Surface of the Intermediate Water Bearing Unit

LEGEND

Monitoring Wells

MW-11B Well ID
968.52 Water Level Elevation (ft amsl)

Line of Equal Water Level Elevations

* Water level elevation not used for contouring

Site Property

0 Feet 200

MW-14I
970.22

MW-10I
972.22

MW-13I
971.11

O'Neil Road

ACCO Brands Corp

MW-05I
977.18

West Road

Freight Line

MW-21I
970.57

MW-11I
972.35

EW-4I*
923.50

MW-12I
974.88

MW-07I
973.20

972

974

976

978

MW-03I
976.85

EW-1I
977.52

EW-5I
978.44

PZ-02I
978.54

EW-2I
979.02

EW-3I
979.54

MW-02I
987.22

PZ-01I
986.72

MW-01D
986.78

Delaware Avenue

Freight Line

Town of Sidney

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Figure 3-19

Potentiometric Surface of the Intermediate Water Bearing Unit

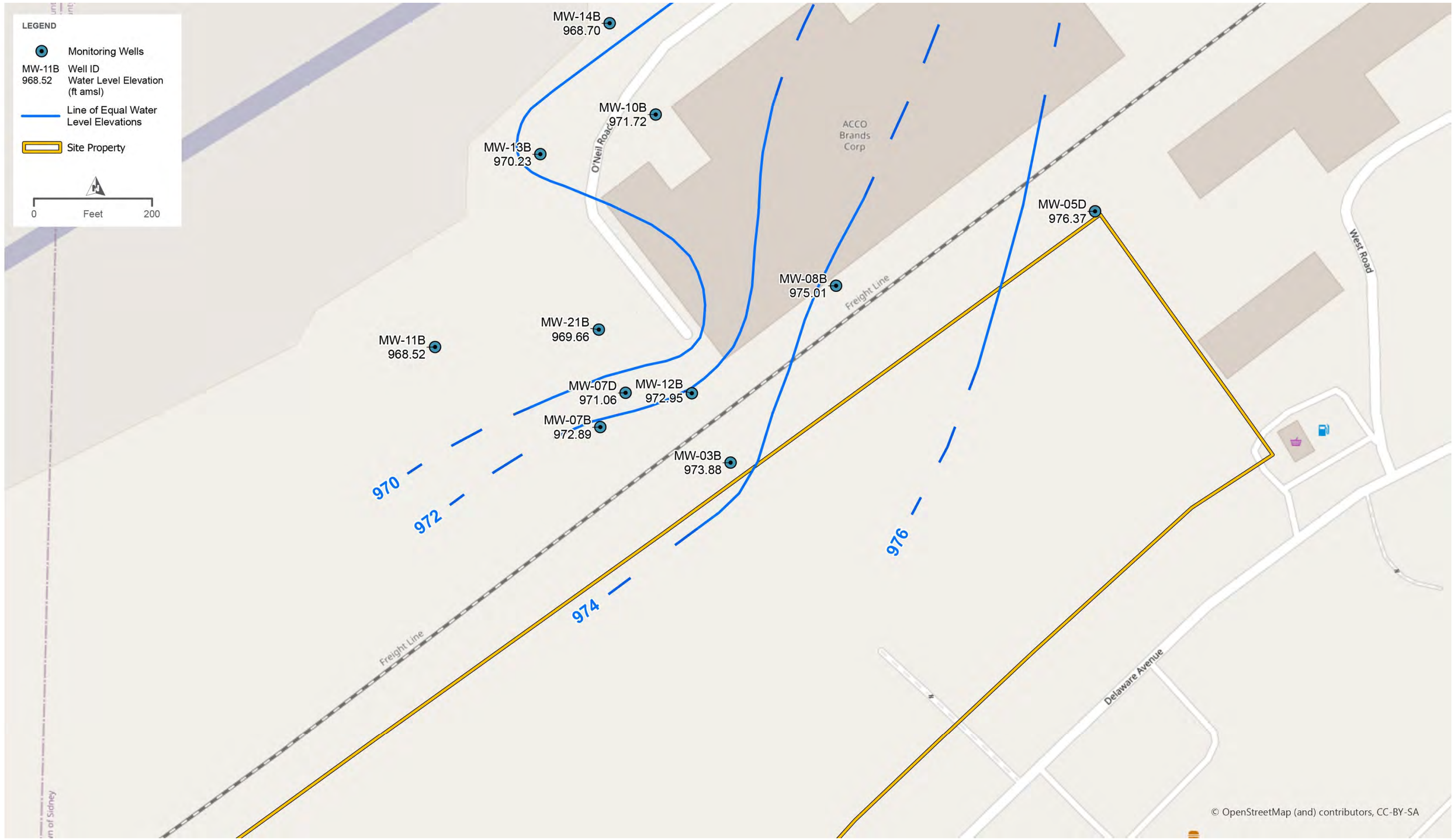
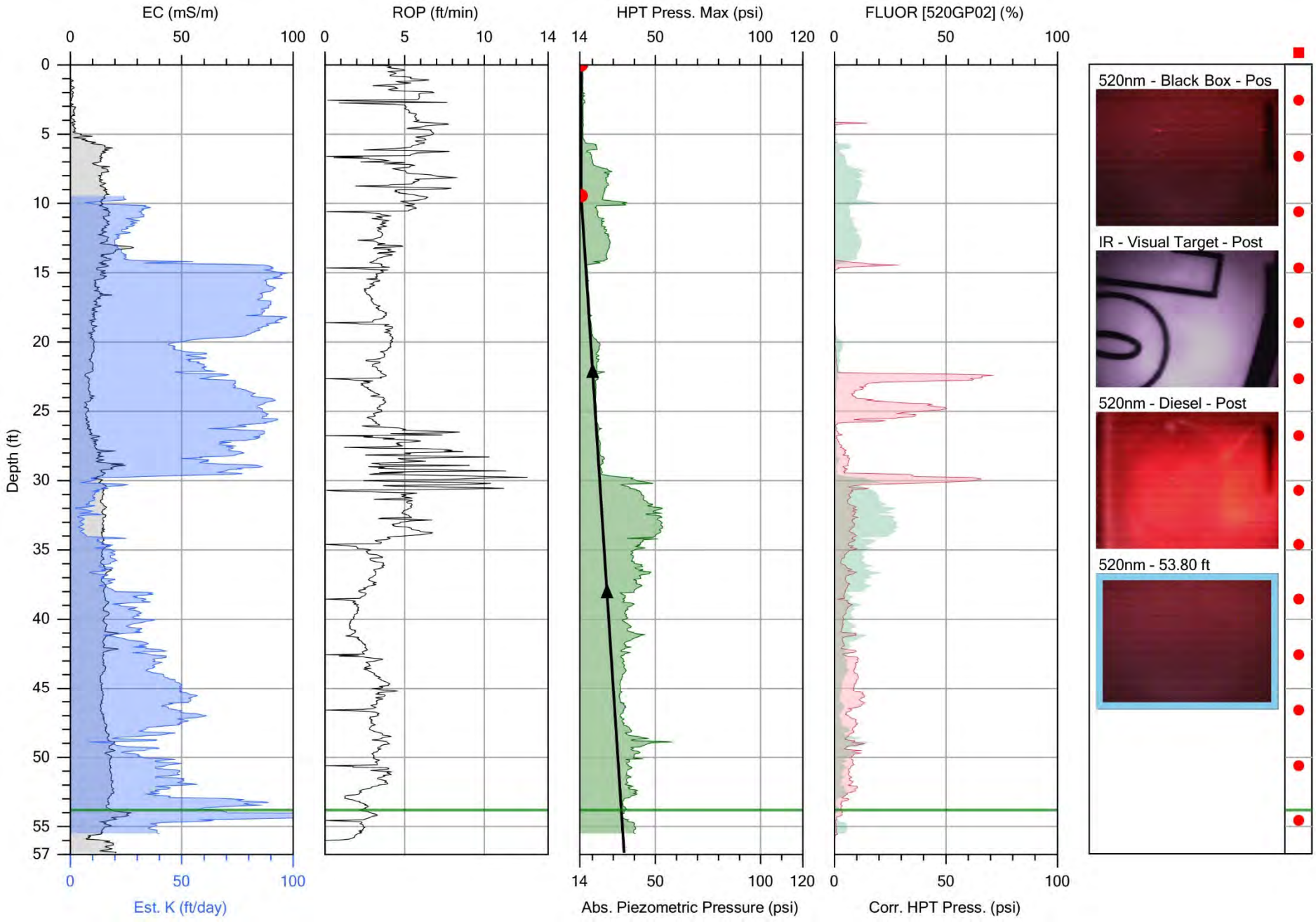


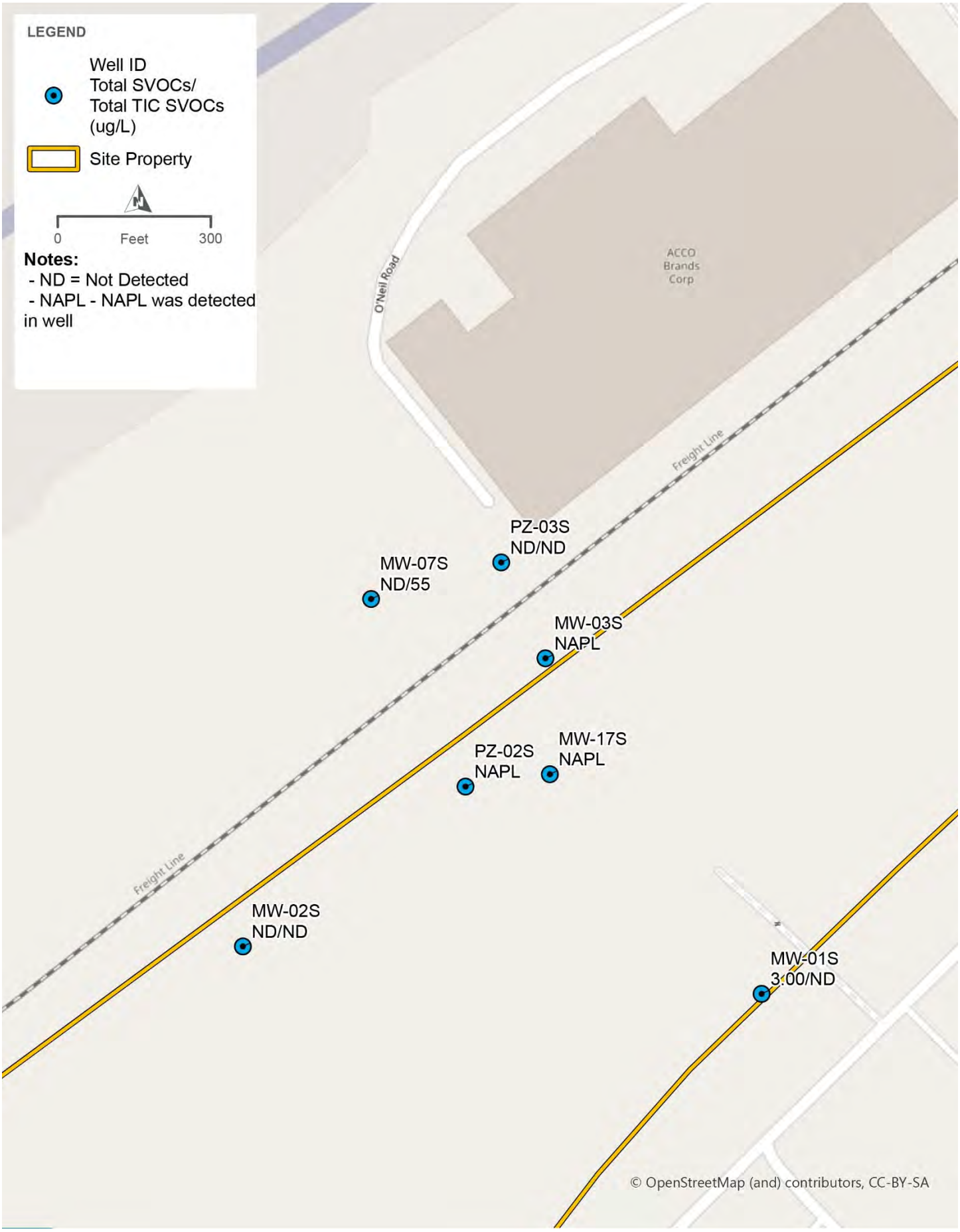
Figure 3-20

Potentiometric Surface of Bedrock Water Bearing Unit



Source: C2S2

Figure 4-1
LIF Log for SB-BR-10



HDR OBG

Figure 4-2

Total Semi-Volatile Organic Compounds and Total Semi-Volatile Organic Compound Tentatively Identified Compounds in Groundwater Collected from Monitoring Wells in the Shallow Water Bearing Unit

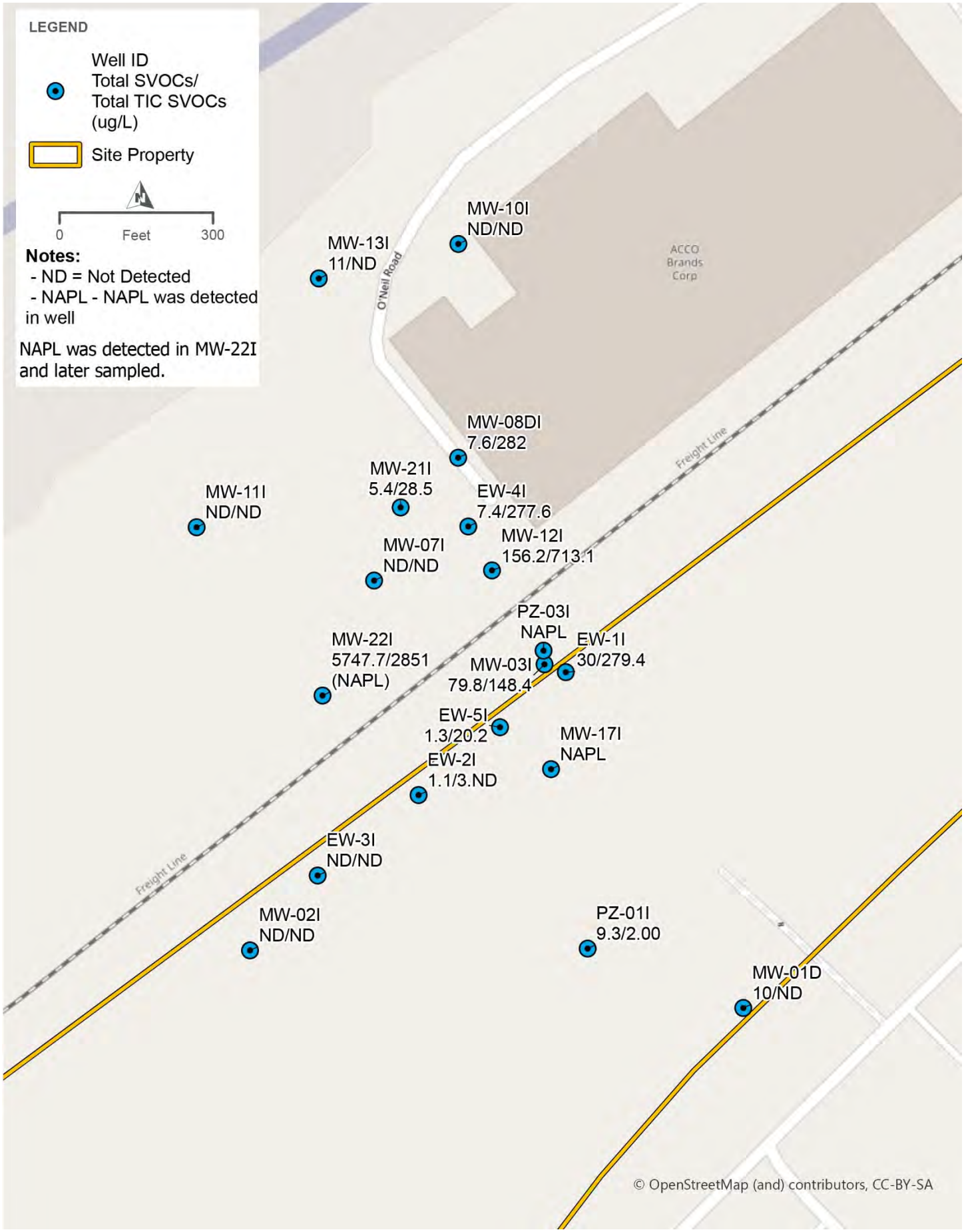
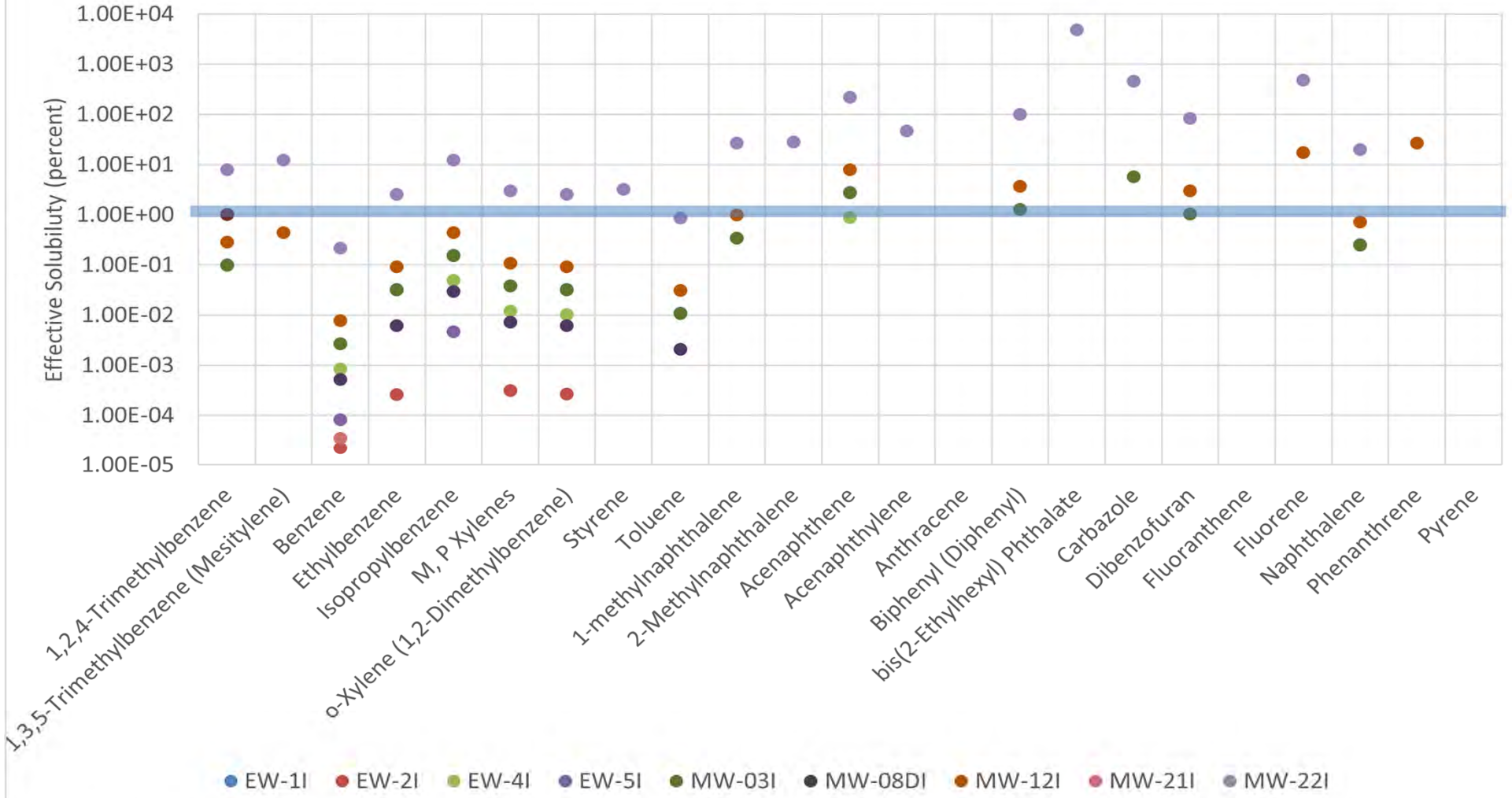


Figure 4-3

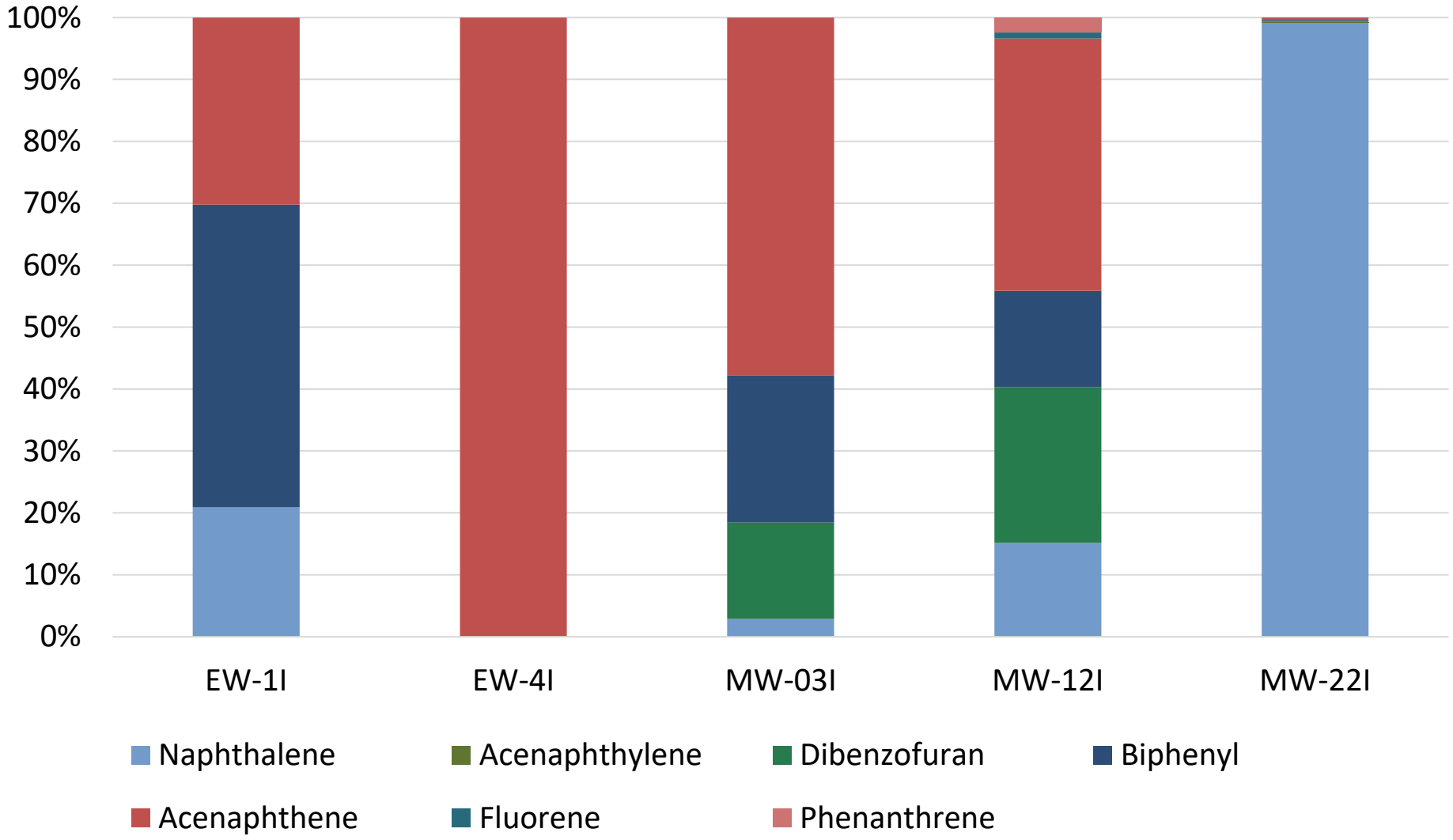
HDR OBG

Total Semi-Volatile Organic Compounds and Total Semi-Volatile Organic Compound Tentatively Identified Compounds in Groundwater Collected from Monitoring Wells in the Intermediate Water Bearing Unit



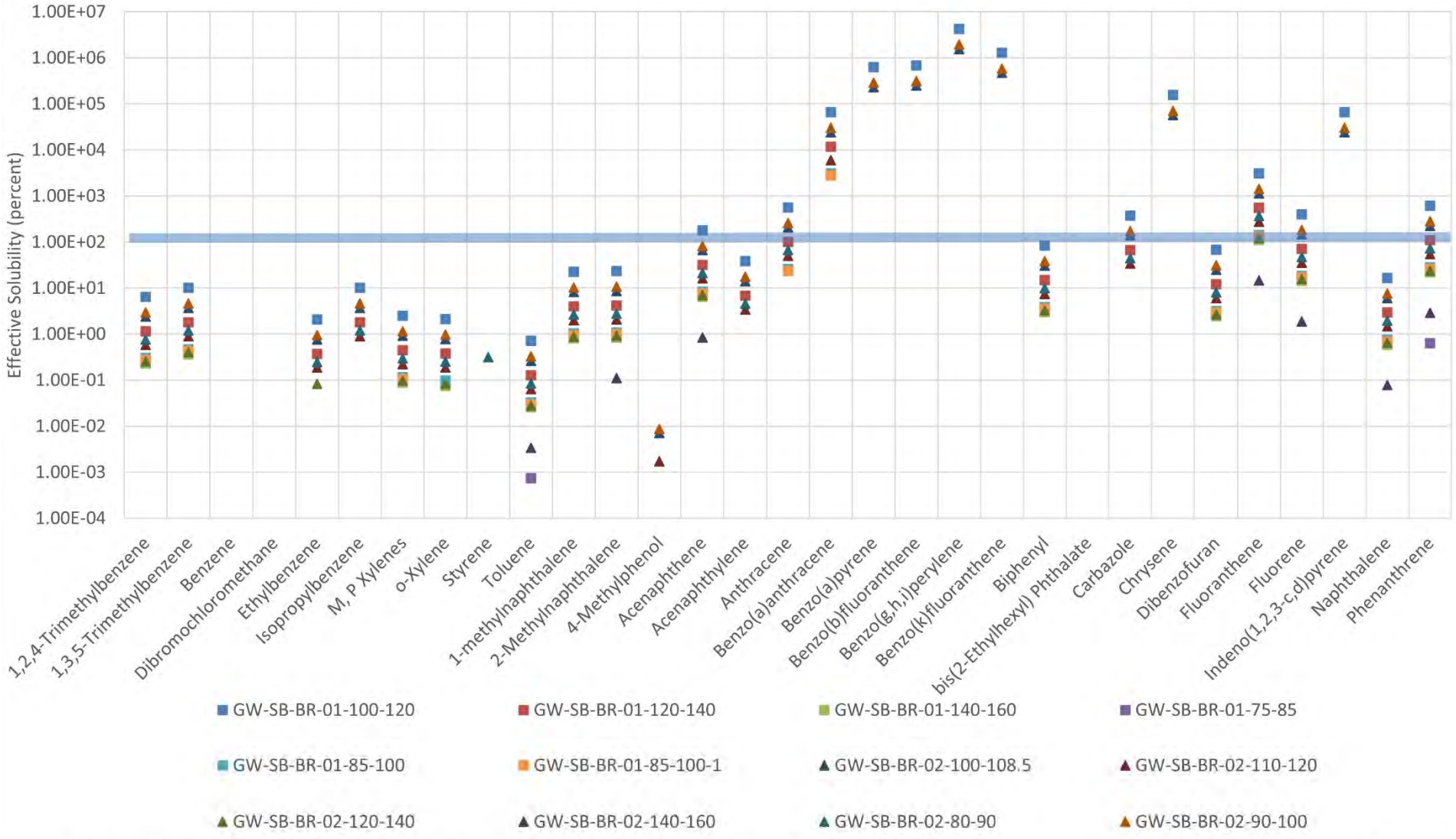
An effective solubility of greater than 1 percent is the threshold that commonly has been used as "rule of thumb" to infer the presence of DNAPLs in aqueous monitoring results. The 1-percent threshold has been used to infer the presence of DNAPLs in aqueous monitoring results where limited or no data are available from direct testing for the presence of DNAPLs through soil or water analyses methods (U.S. Environmental Protection Agency, 2004a; Kueper and Davies, 2009).

Figure 4-4
Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Monitoring Wells Screened in Intermediate Water Bearing Unit



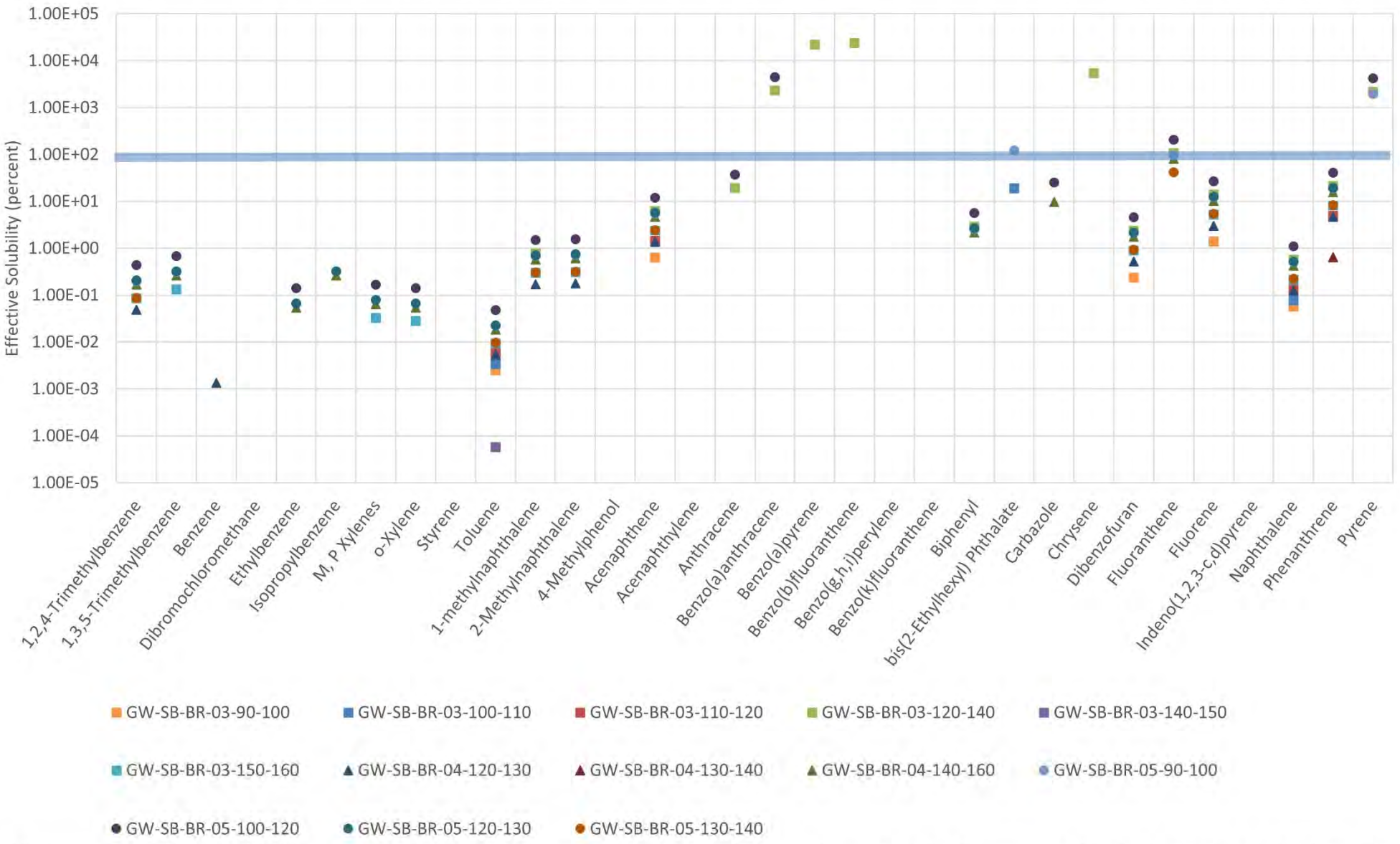
Monitoring wells EW-2I, EW-3I, EW-5I, MW-8DI, MW-22I are not presented on this chart as no PAHs were detected in groundwater samples. Analytes have been organized by aqueous solubility with the lowest aqueous solubility presented at the top of the cart.

Figure 4-5
Molar Fractions of Polycyclic Aromatic Hydrocarbons Compounds in Groundwater Collected from Monitoring Wells Screened in Intermediate Water Bearing Unit



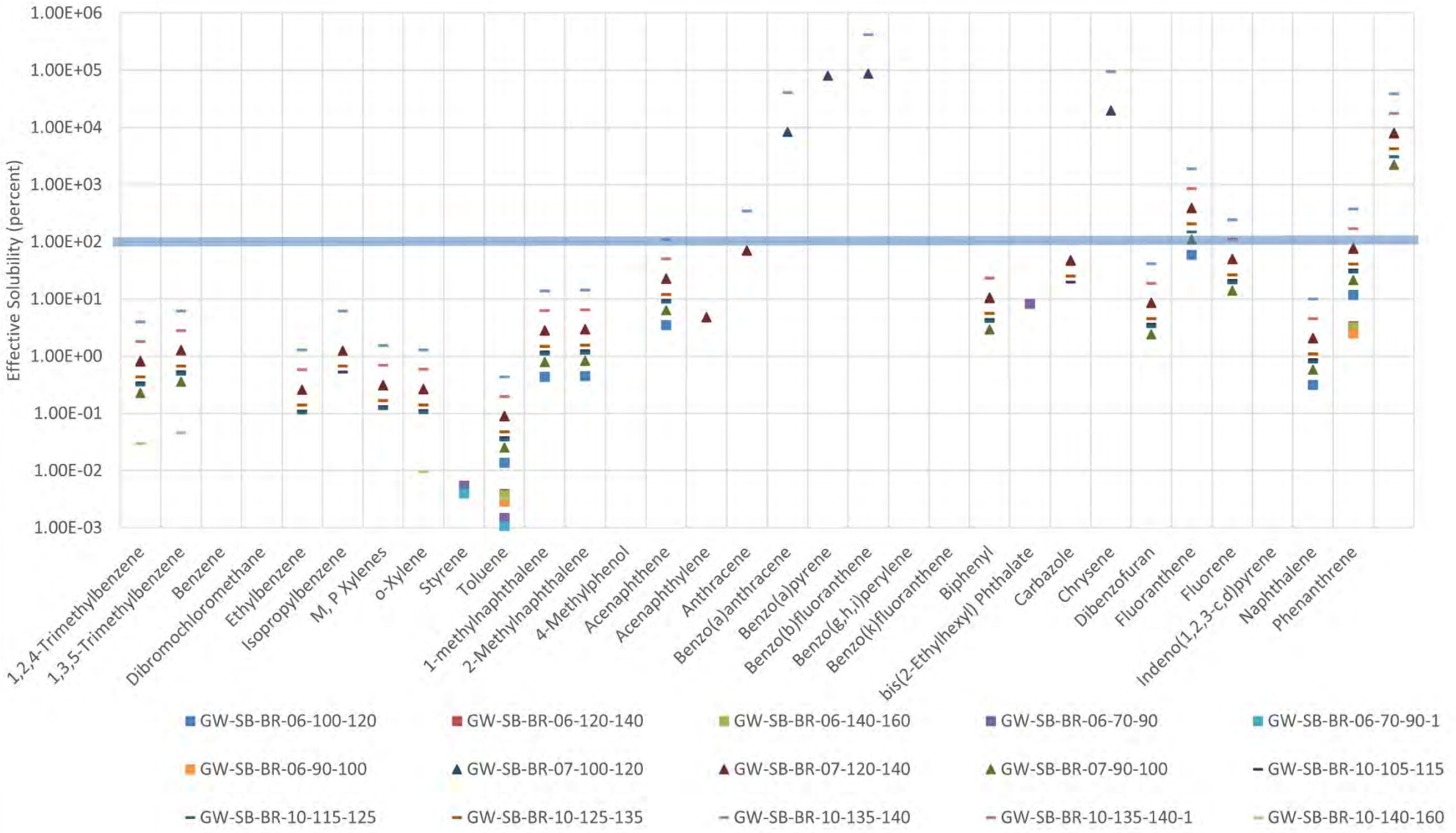
An effective solubility of greater than 1 percent is the threshold that commonly has been used as "rule of thumb" to infer the presence of DNAPLs in aqueous monitoring results. The 1-percent threshold has been used to infer the presence of DNAPLs in aqueous monitoring results where limited or no data are available from direct testing for the presence of DNAPLs through soil or water analyses methods (U.S. Environmental Protection Agency, 2004a; Kueper and Davies, 2009). However, due to the elevated turbidity in the packer groundwater samples, an additional margin of error was applied to the calculation and greater than 100 percent (two orders of magnitude) were used as the threshold for potential NAPL in bedrock.

Figure 4-6
Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in Bedrock Water Bearing Unit (1 of 5)



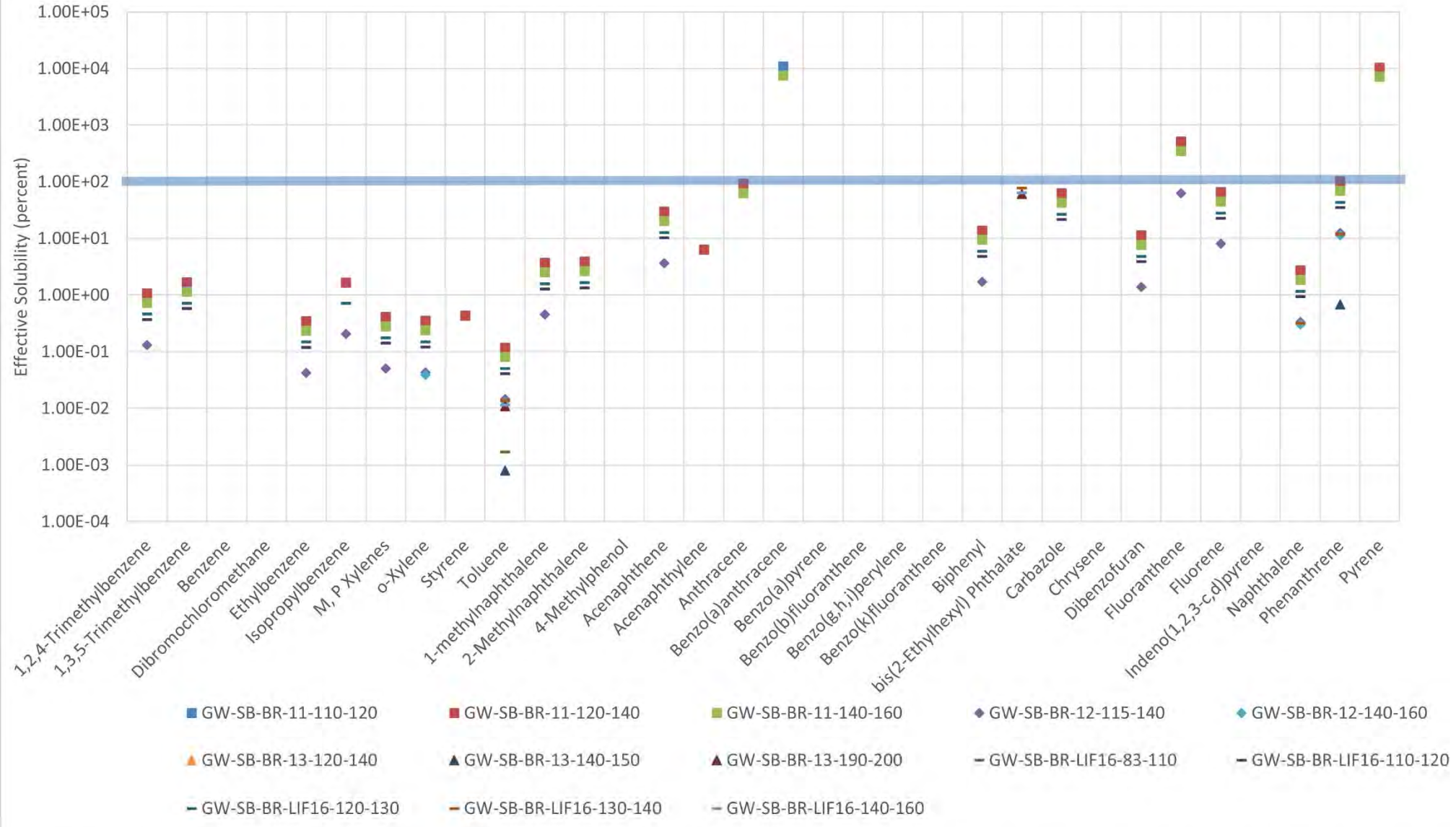
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Figure 4-7
Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in Bedrock Water Bearing Unit (2 of 5)



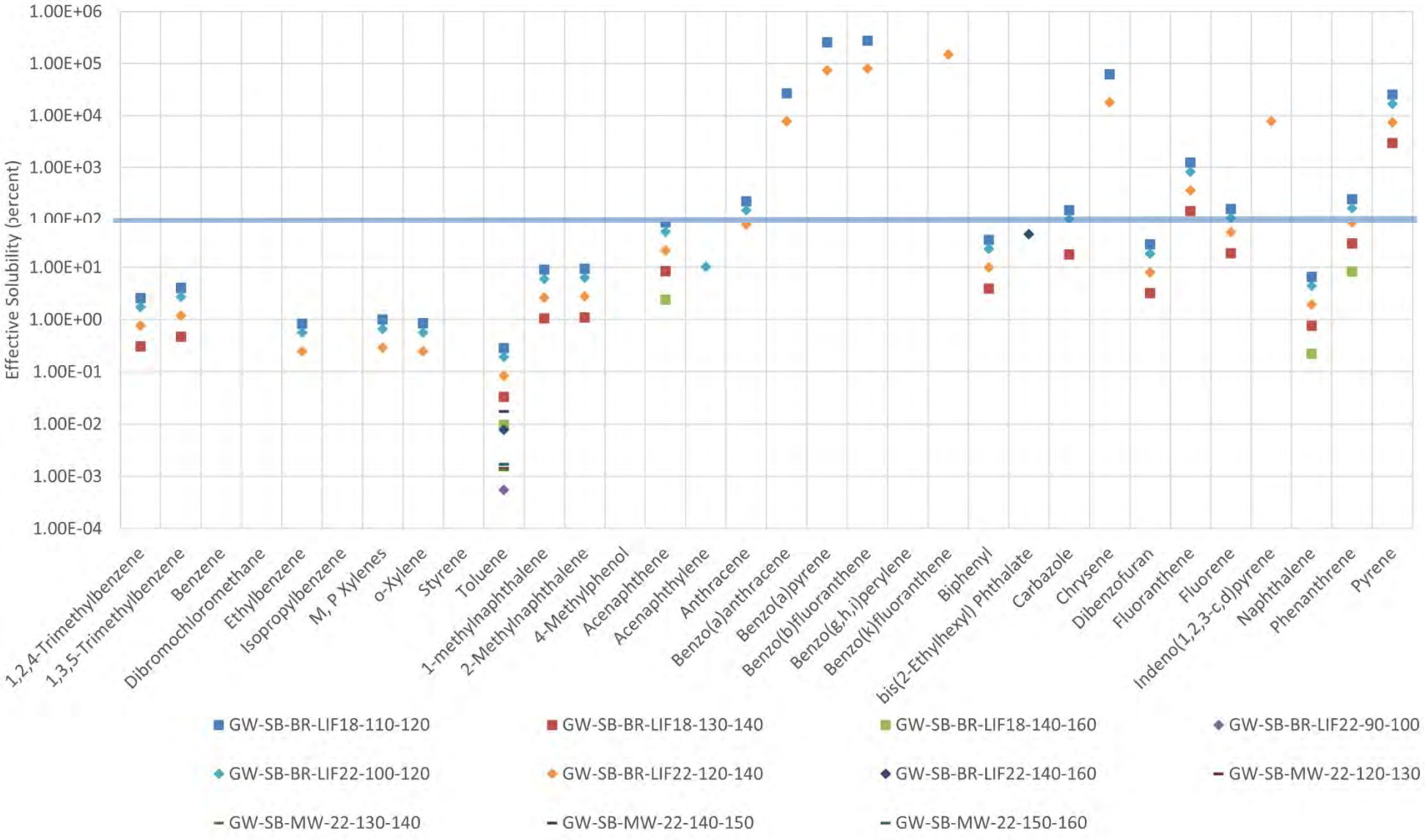
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Figure 4-8
Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in Bedrock Water Bearing Unit (3 of 5)



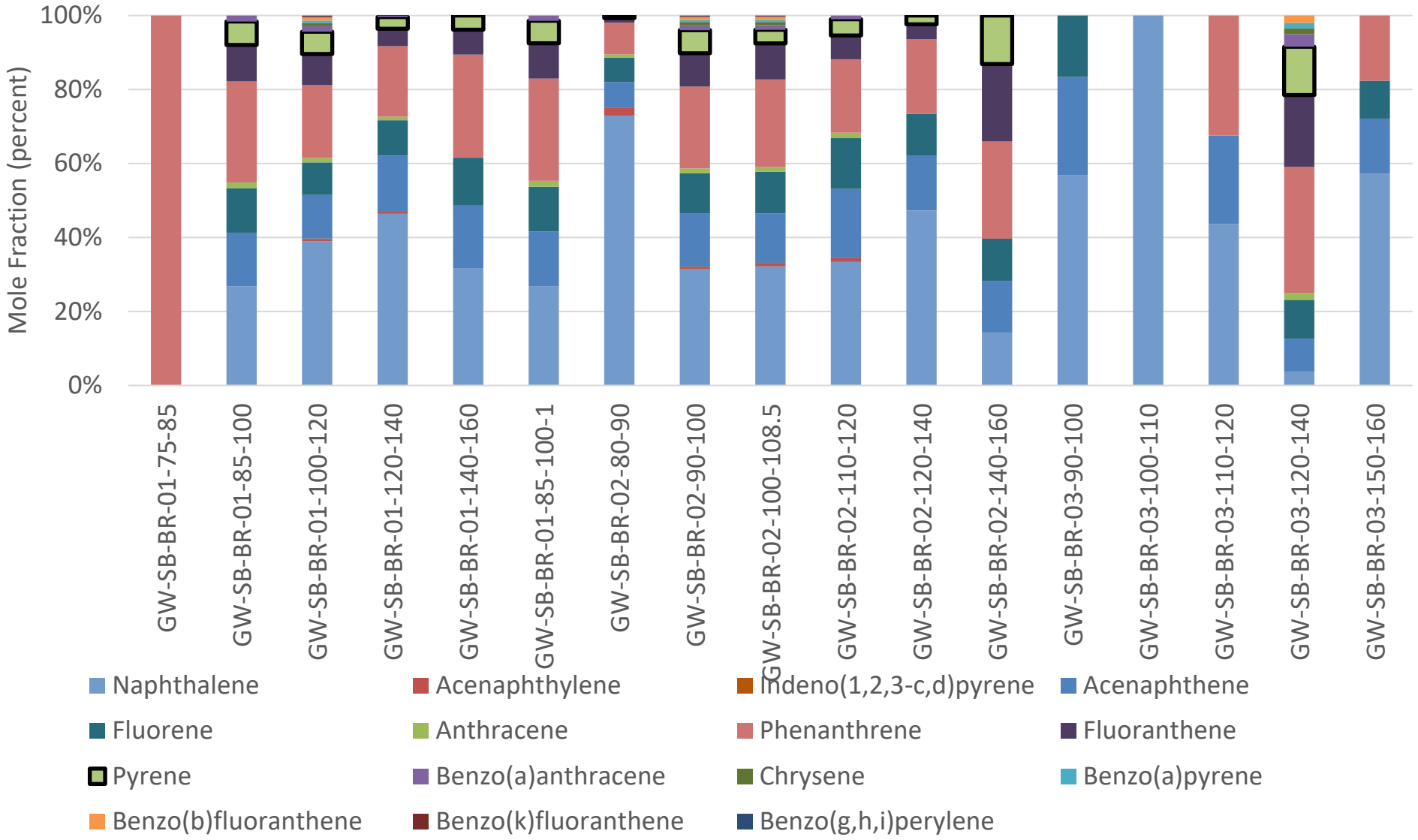
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Figure 4-9
Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in Bedrock Water Bearing Unit (4 of 5)



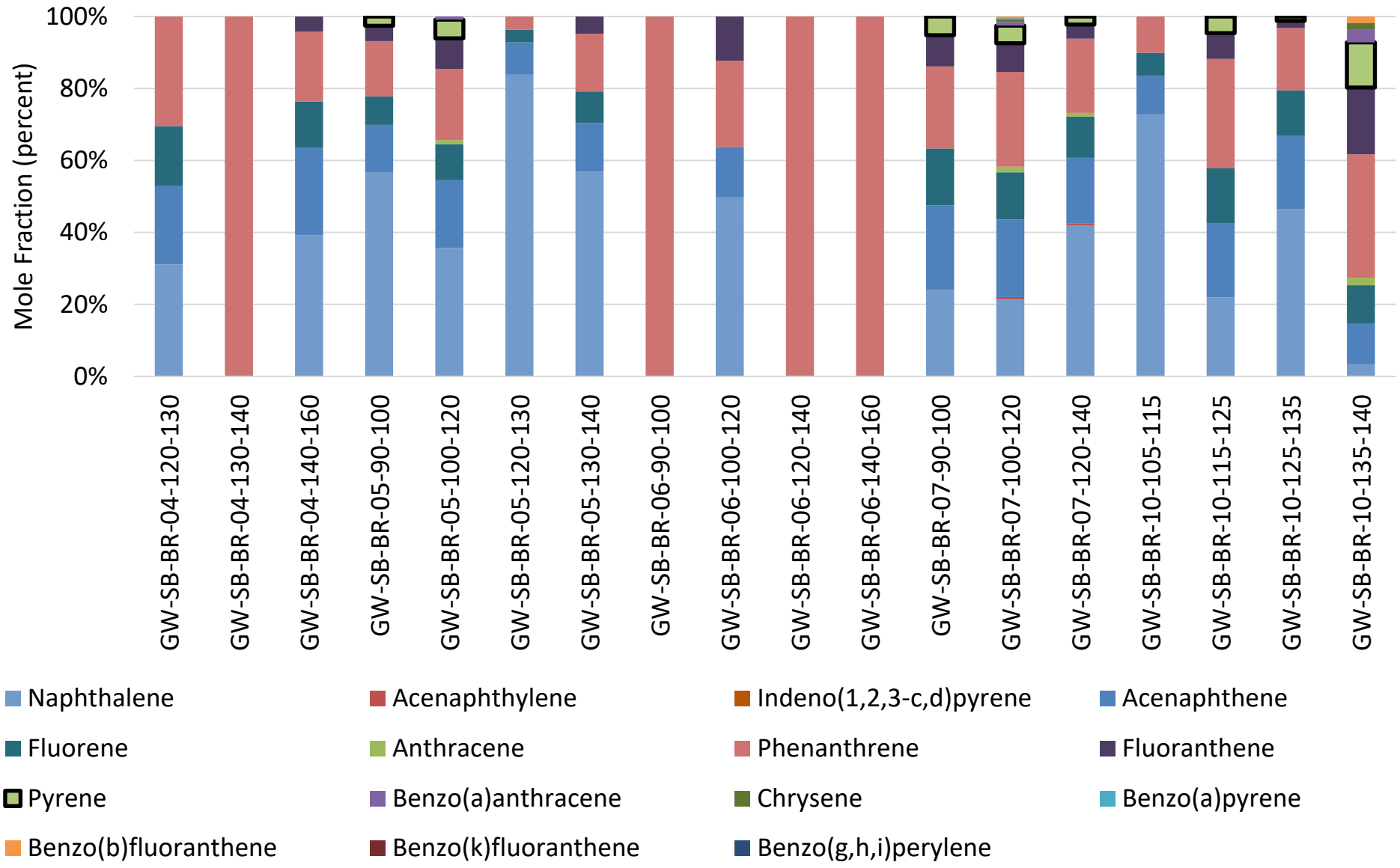
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Figure 4-10
Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Packer Samples in Bedrock Water Bearing Unit (5 of 5)



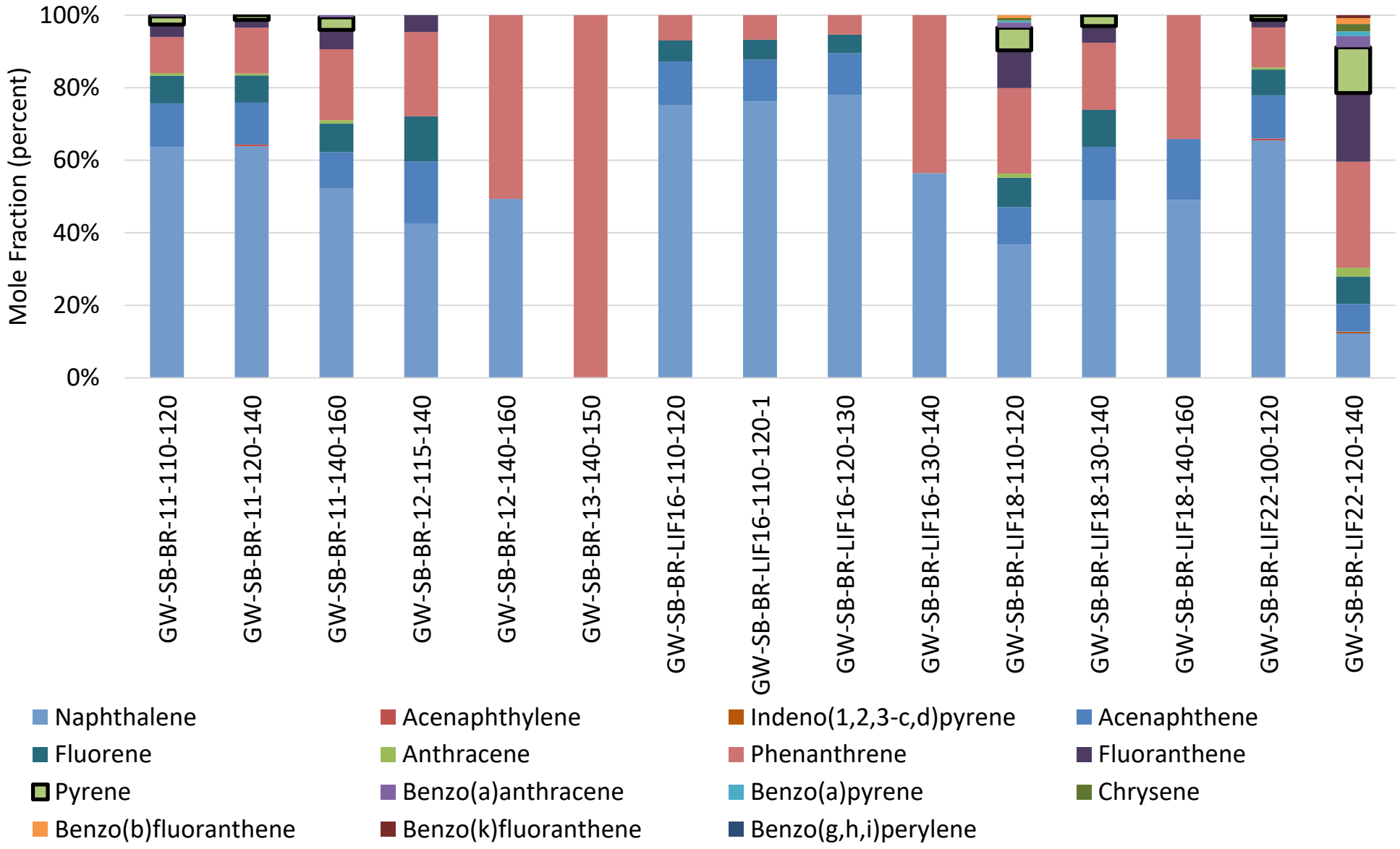
Analytes have been organized by aqueous solubility with the lowest aqueous solubility presented at the top of the cart.

Figure 4-11
Molar Fractions of Polycyclic Aromatic Hydrocarbons Compounds in Packer Groundwater Samples in Bedrock Water Bearing Unit (1 of 3)



Analytes have been organized by aqueous solubility with the lowest aqueous solubility presented at the top of the cart.

Figure 4-12
Molar Fractions of Polycyclic Aromatic Hydrocarbons Compounds in Packer Groundwater Samples in Bedrock Water Bearing Unit (2 of 3)



Analytes have been organized by aqueous solubility with the lowest aqueous solubility presented at the top of the cart.

Figure 4-13
Molar Fractions of Polycyclic Aromatic Hydrocarbons Compounds in Packer Groundwater Samples in Bedrock Water Bearing Unit (3 of 3)

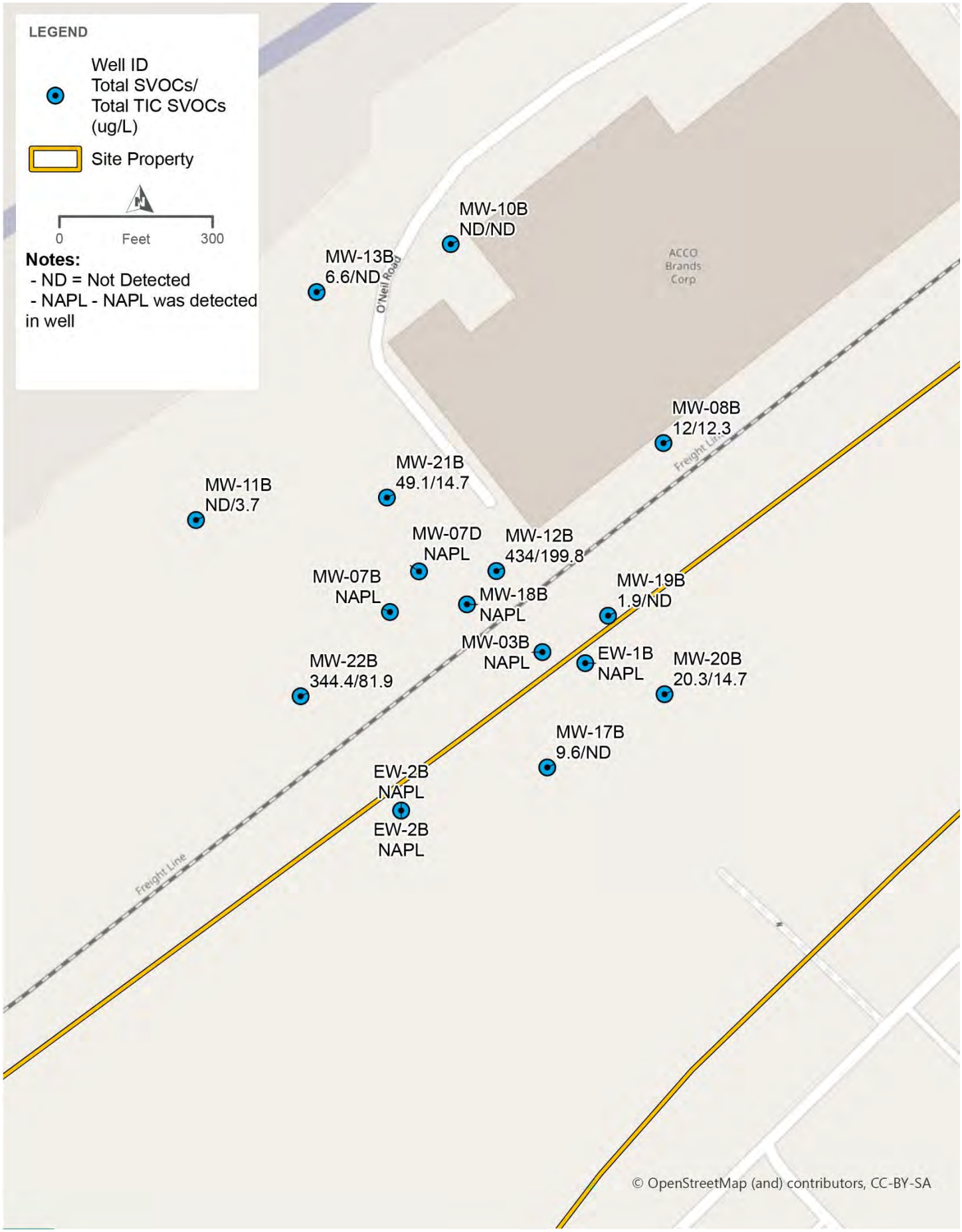
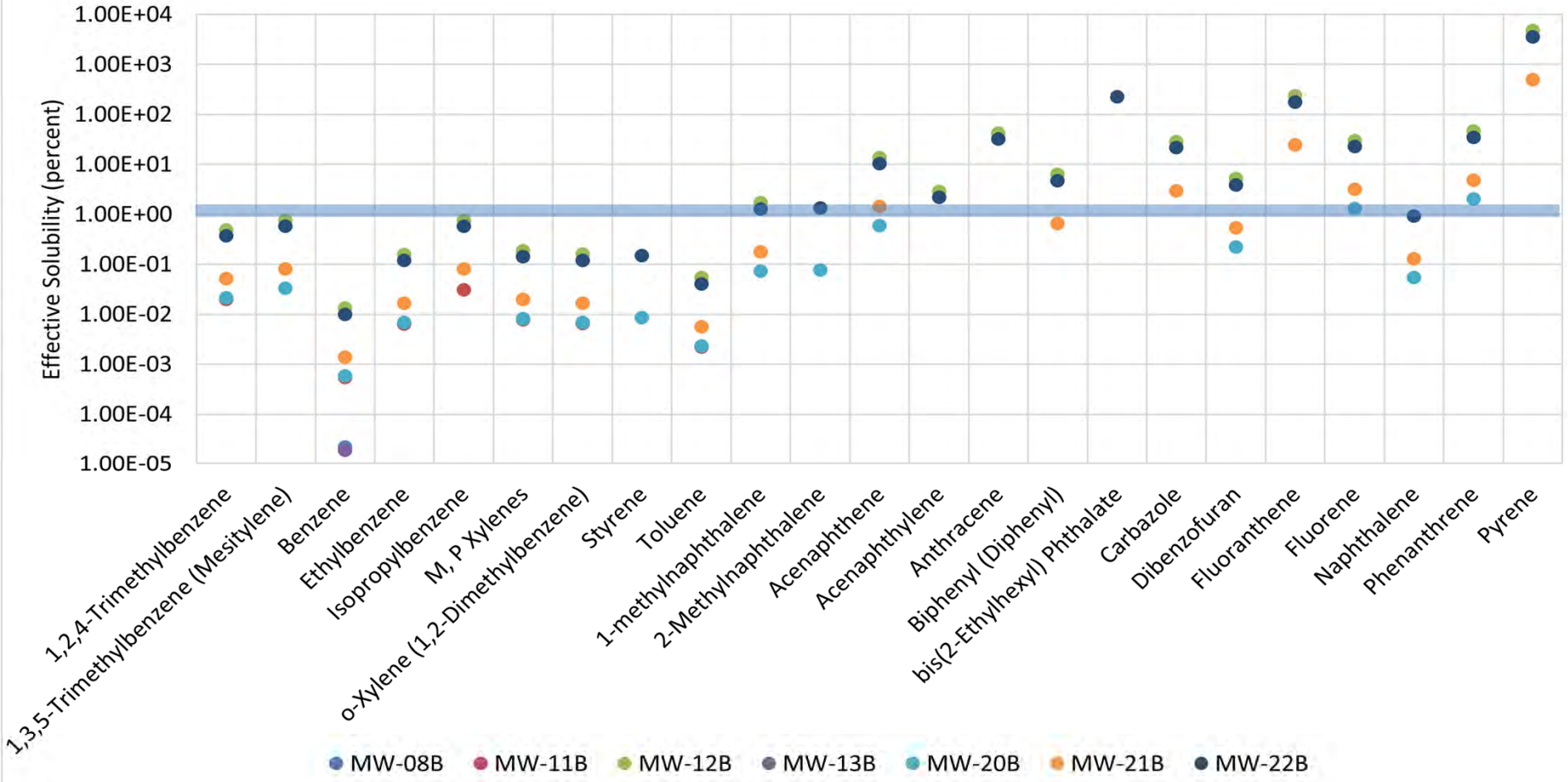


Figure 4-14

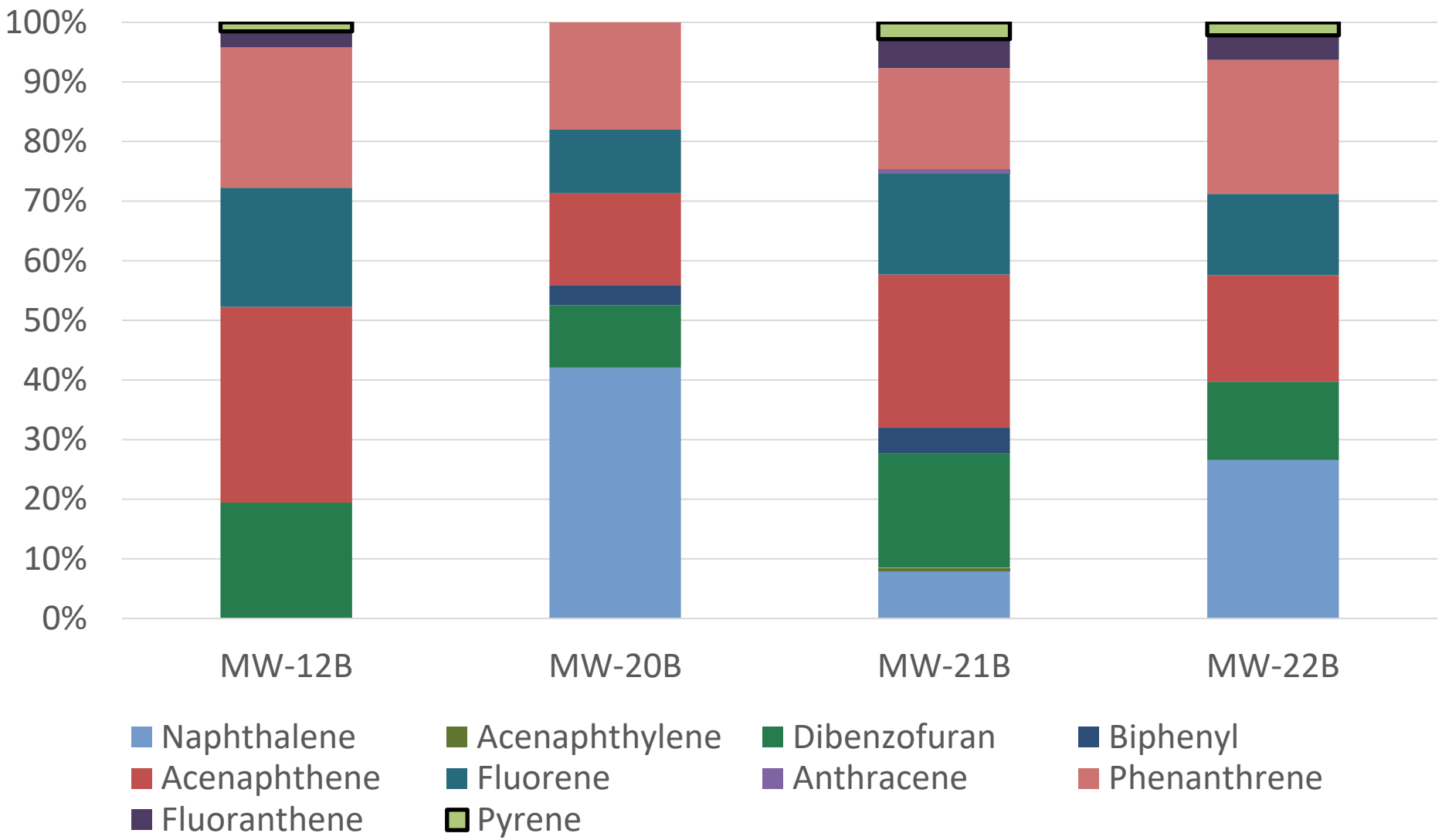
HDR OBG

Total Semi-Volatile Organic Compounds and Total Semi-Volatile Organic Compound Tentatively Identified Compounds in Groundwater Collected from Monitoring Wells in the Bedrock Water Bearing Unit



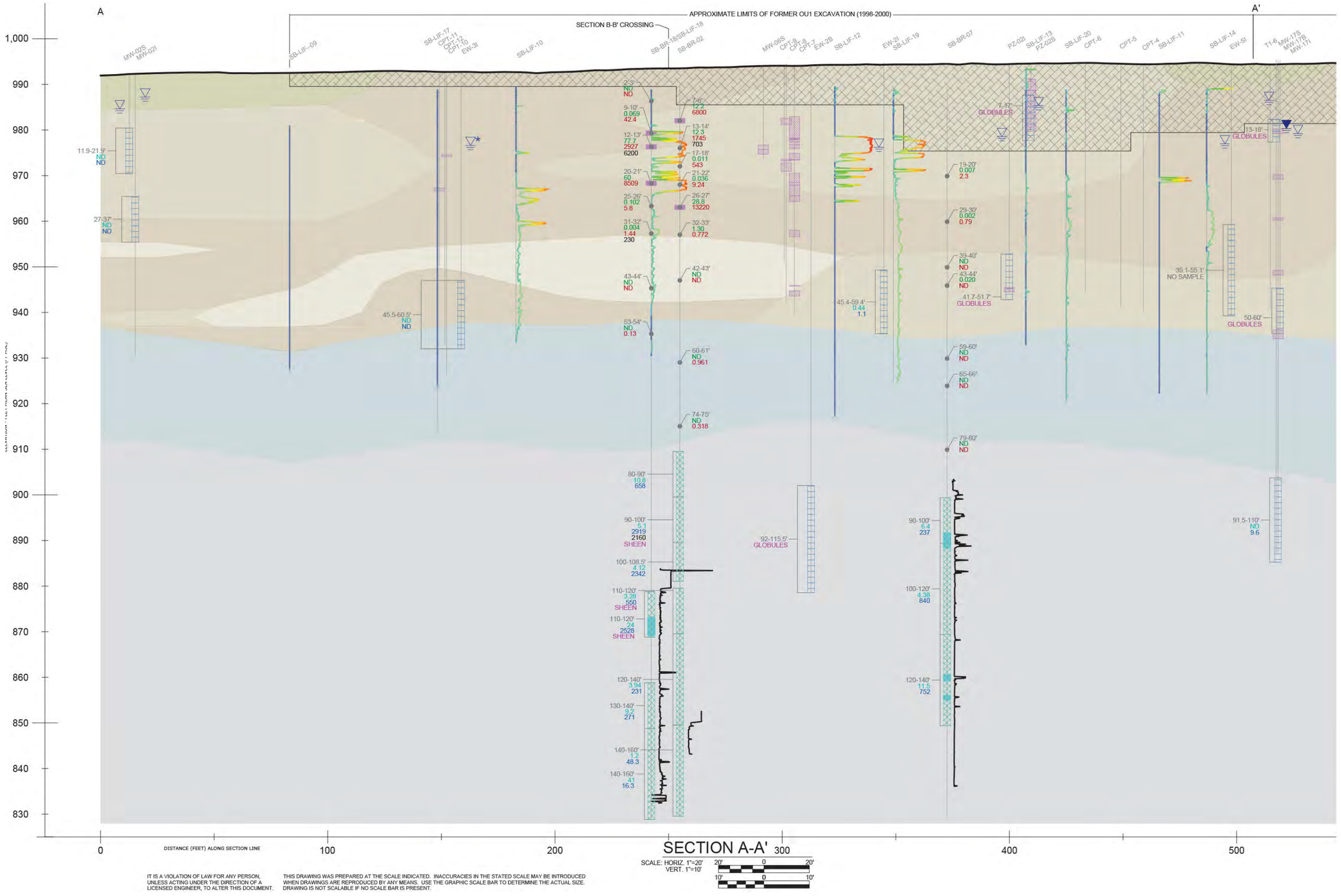
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Figure 4-15
Effective Solubility of Semi-Volatile Organic Compounds in Groundwater Collected from Monitoring Wells Screened in Bedrock Water Bearing Unit



Monitoring Wells MW-11B, and MW-13B are not presented on this Chart as no PAHs were detected in groundwater. Analytes have been organized by aqueous solubility with the lowest aqueous solubility presented at the top of the cart.

Figure 4-16
Molar Fractions of Polycyclic Aromatic Hydrocarbon Compounds in Groundwater Collected from Monitoring Wells Screened in Bedrock Water Bearing Unit

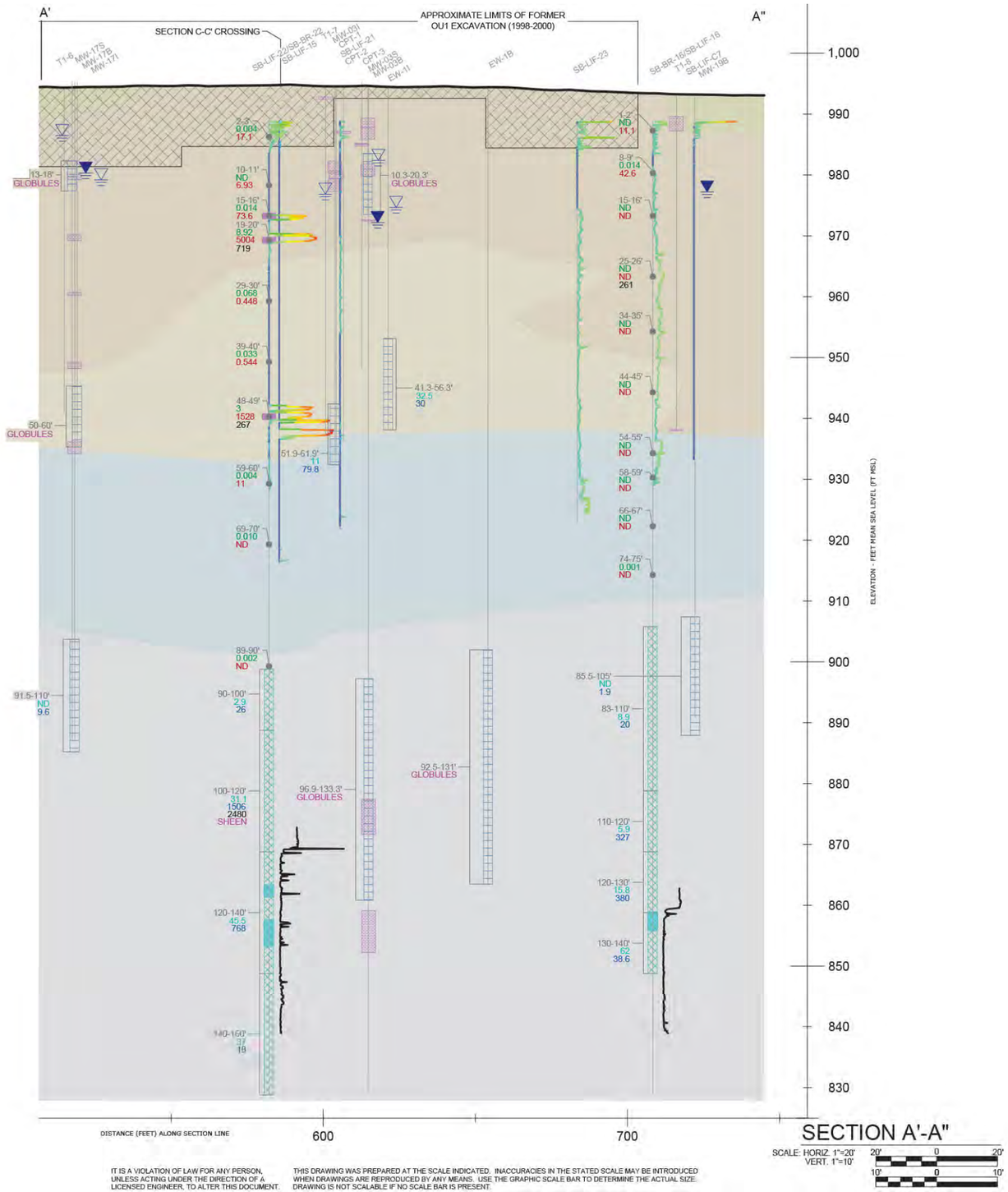


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Figure 4-17

Hydrogeologic Cross-Section A-A'



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LEGEND

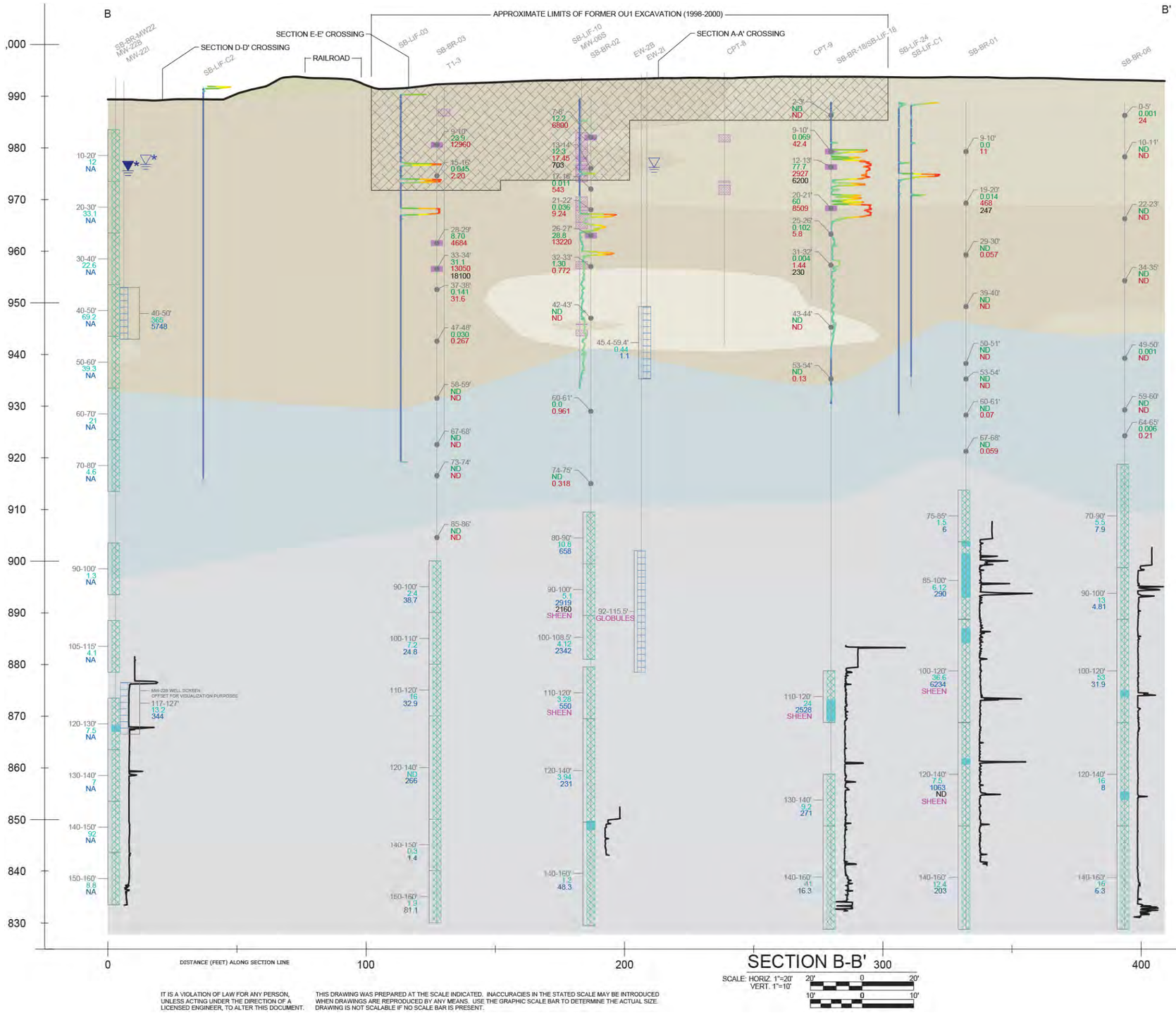
- BORING / WELL LOCATION
- SOIL SAMPLE LOCATION
- SOIL RESULTS - BTEX (mg/kg)
- SOIL RESULTS - SVOCs (mg/kg)
- SOIL RESULTS - TPH (mg/kg)
- MONITORING WELL SCREEN
- PACKER TEST SCREEN
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022, *JAN. / FEB. 2023)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022)
- GROUNDWATER RESULTS - BTEX (ug/L)
- GROUNDWATER RESULTS - SVOCs (ug/L)
- GROUNDWATER RESULTS - TPH (ug/L)
- NAPL OBSERVATION IN GROUNDWATER
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- GRAVEL / COBBLES
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED (1999 INVESTIGATION)
- LIF RESPONSE - OVERBURDEN
  (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- ND NO DETECT

NOTES

1. Boring locations depicted may not match the ground surface due to locations being projected to the profile line.
2. Sample results depicted are from soil borings, monitoring wells or packer tests collected during the 2022-2023 PDI Investigation.
3. The vertical interval of the potential NAPL extent area was estimated based on indirect indications of NAPL. The impacted vertical interval may or may not be continuous throughout the potential NAPL impact area and is drawn to show the estimated extents of where potential NAPL may exist.

Figure 4-18

Hydrogeologic Cross-Section A'-A"



LEGEND

- BORING / WELL LOCATION
- SOIL SAMPLE LOCATION
- SOIL RESULTS - BTEX (mg/kg)
- SOIL RESULTS - SVOCs (mg/kg)
- SOIL RESULTS - TPH (mg/kg)
- MONITORING WELL SCREEN
- PACKER TEST SCREEN
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022, *JAN. / FEB. 2023)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022) *
- GROUNDWATER RESULTS - BTEX (ug/L)
- GROUNDWATER RESULTS - SVOCs (ug/L)
- GROUNDWATER RESULTS - TPH (ug/L)
- NAPL OBSERVATION IN GROUNDWATER
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- GRAVEL / COBBLES
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED (1999 INVESTIGATION)
- LIF RESPONSE - OVERBURDEN
  (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- NA NOT ANALYZED
- ND NO DETECT

NOTES

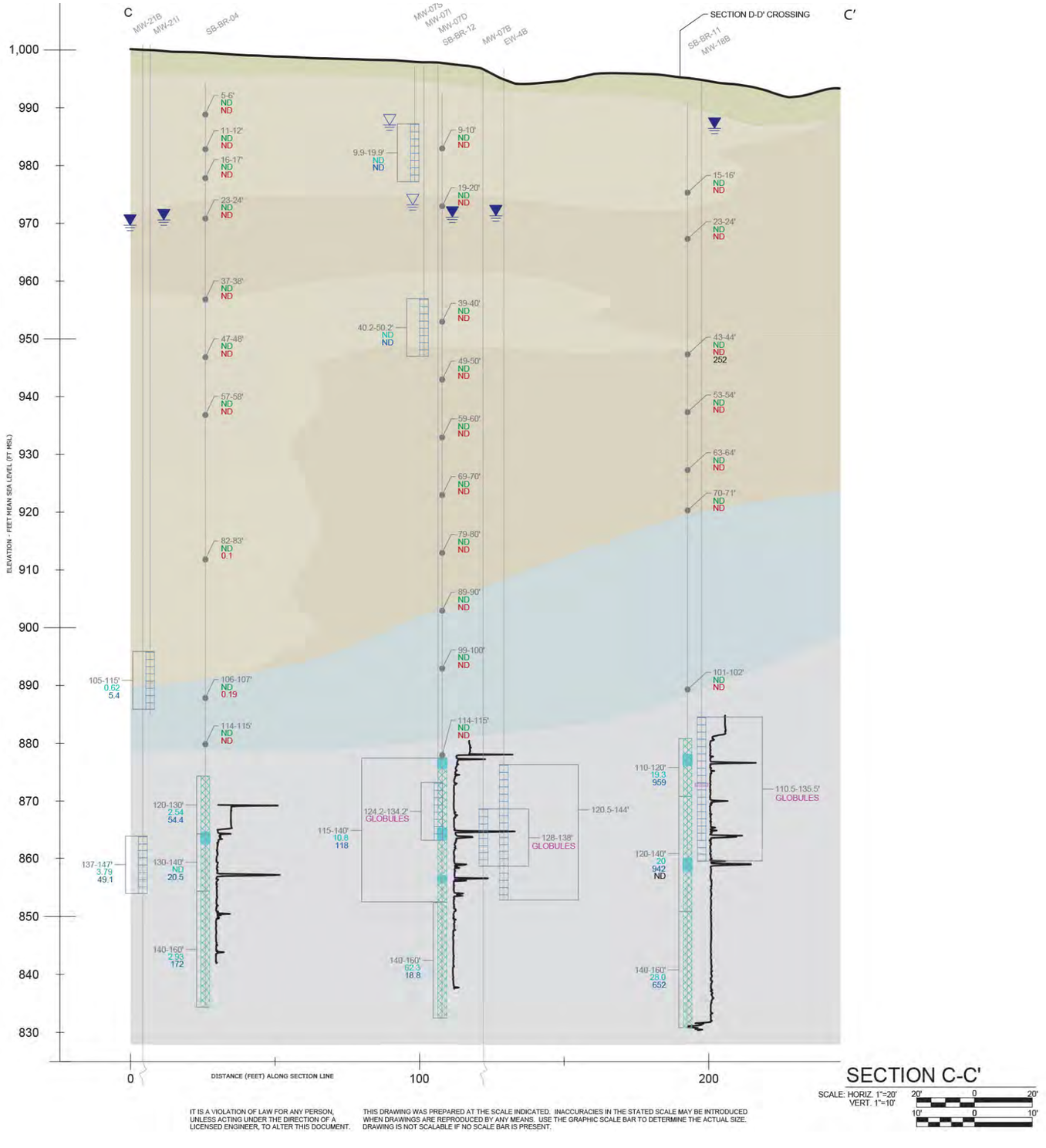
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Figure 4-19

Hydrogeologic Cross-Section B-B'

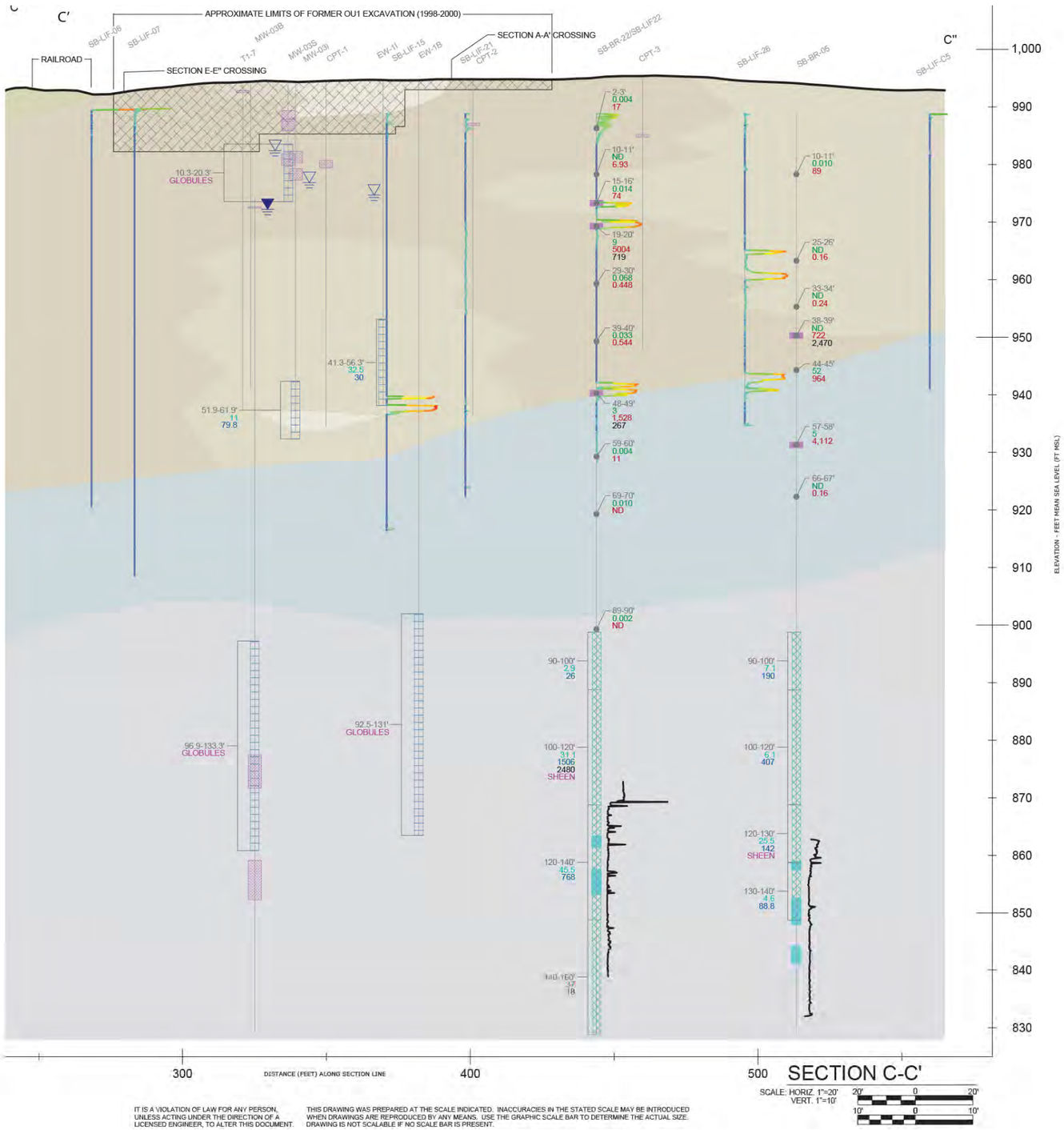


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Figure 4-20

Hydrogeologic Cross-Section C-C'



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LEGEND

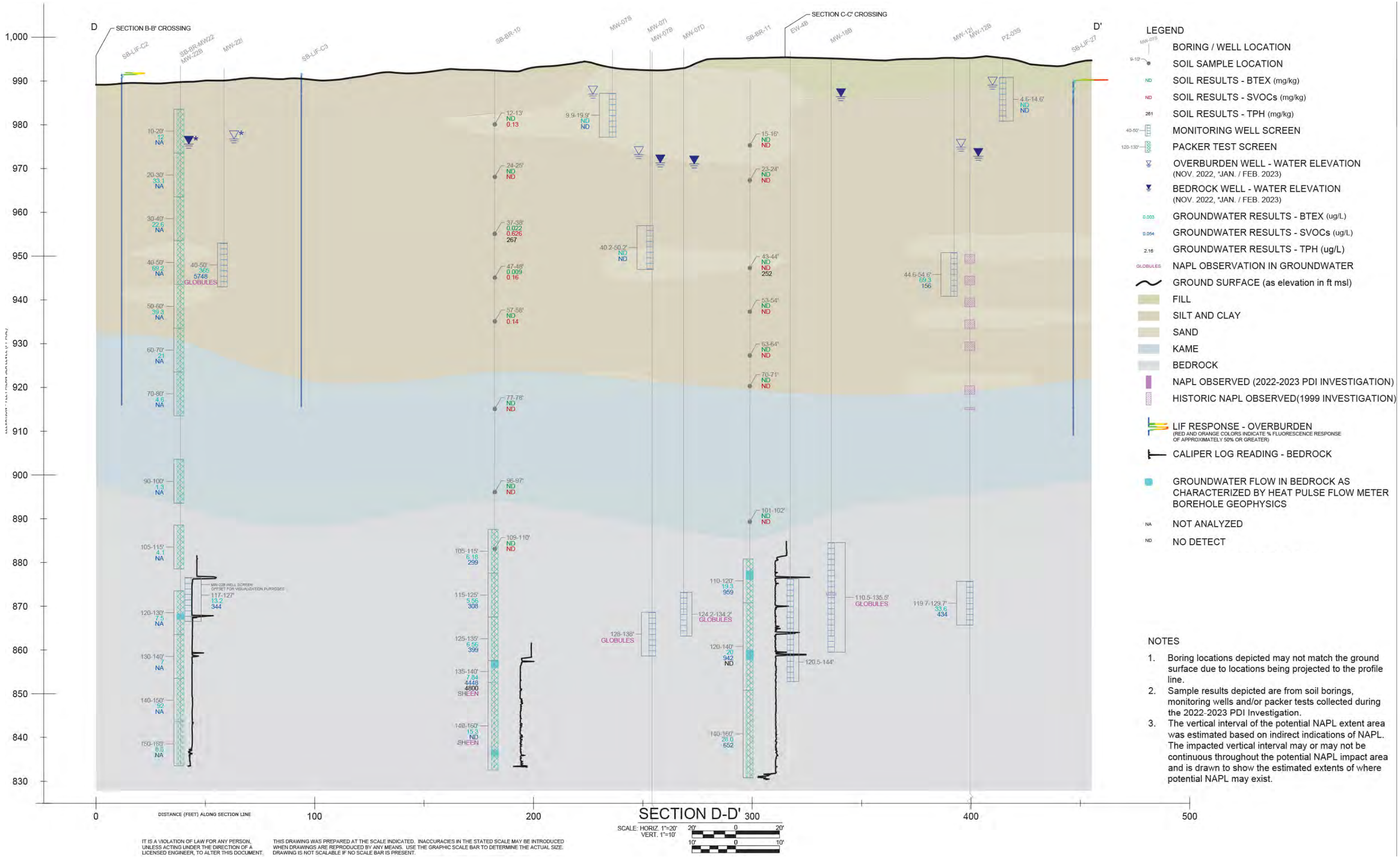
- BORING / WELL LOCATION (MW-07S)
- SOIL SAMPLE LOCATION (9-10')
- SOIL RESULTS - BTEX (mg/kg) (ND)
- SOIL RESULTS - SVOCs (mg/kg) (ND)
- SOIL RESULTS - TPH (mg/kg) (261)
- MONITORING WELL SCREEN (40-50')
- PACKER TEST SCREEN (120-130')
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022)
- GROUNDWATER RESULTS - BTEX (ug/L) (0.003)
- GROUNDWATER RESULTS - SVOCs (ug/L) (0.054)
- GROUNDWATER RESULTS - TPH (ug/L) (2.16)
- NAPL OBSERVATION IN GROUNDWATER (GLOBULES)
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- GRAVEL / COBBLES
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED (1999 INVESTIGATION)
- LIF RESPONSE - OVERBURDEN (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- ND NO DETECT

NOTES

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Figure 4-21

Hydrogeologic Cross-Section C'-C"



LEGEND

- BORING / WELL LOCATION
- SOIL SAMPLE LOCATION
- SOIL RESULTS - BTEX (mg/kg)
- SOIL RESULTS - SVOCs (mg/kg)
- SOIL RESULTS - TPH (mg/kg)
- MONITORING WELL SCREEN
- PACKER TEST SCREEN
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022, *JAN. / FEB. 2023)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022, *JAN. / FEB. 2023)
- GROUNDWATER RESULTS - BTEX (ug/L)
- GROUNDWATER RESULTS - SVOCs (ug/L)
- GROUNDWATER RESULTS - TPH (ug/L)
- NAPL OBSERVATION IN GROUNDWATER
- GROUND SURFACE (as elevation in ft msl)
- FILL
- SILT AND CLAY
- SAND
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED(1999 INVESTIGATION)
- LIF RESPONSE - OVERBURDEN (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- NA NOT ANALYZED
- ND NO DETECT

NOTES

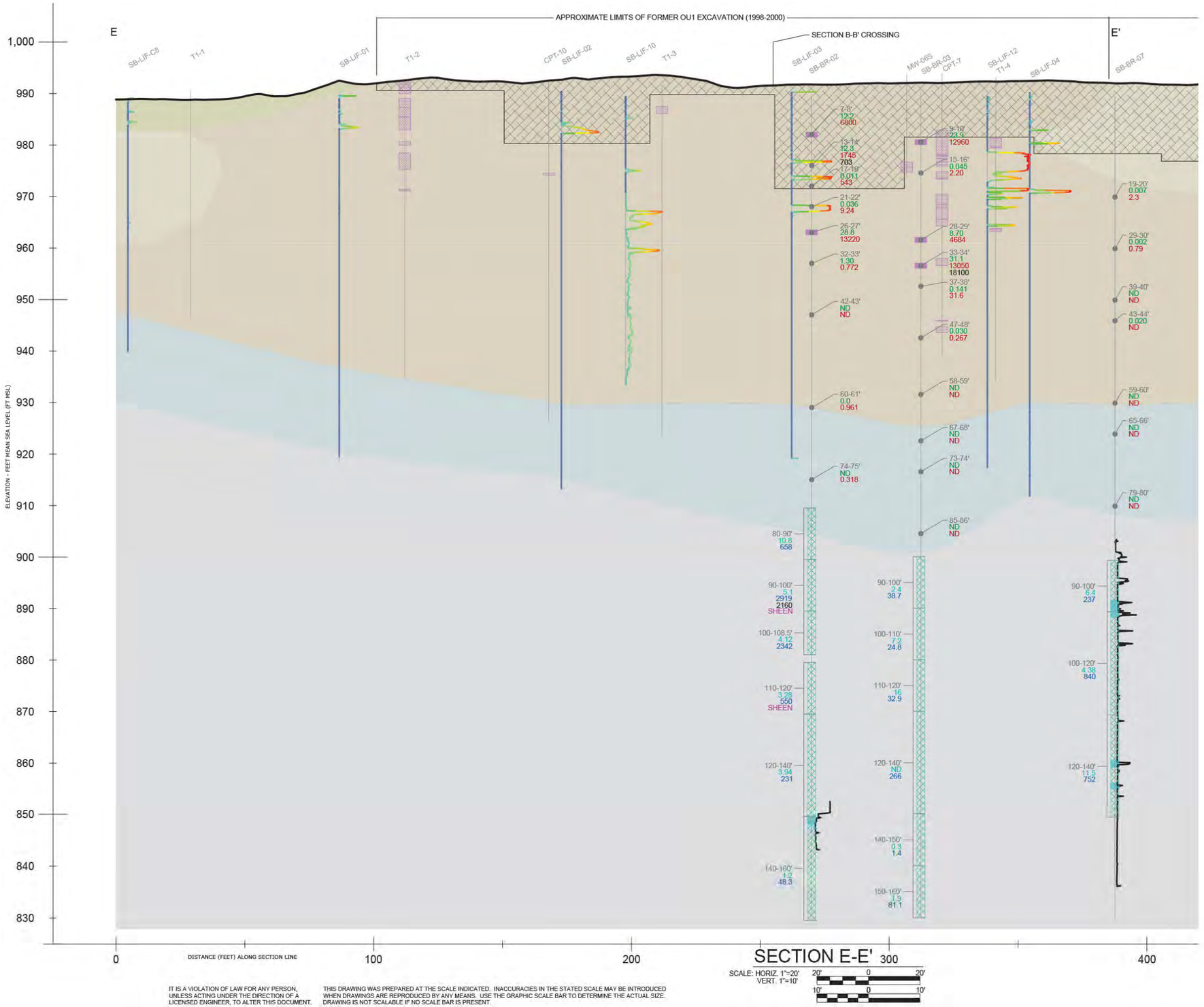
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Figure 4-22

Hydrogeologic Cross-Section D-D'

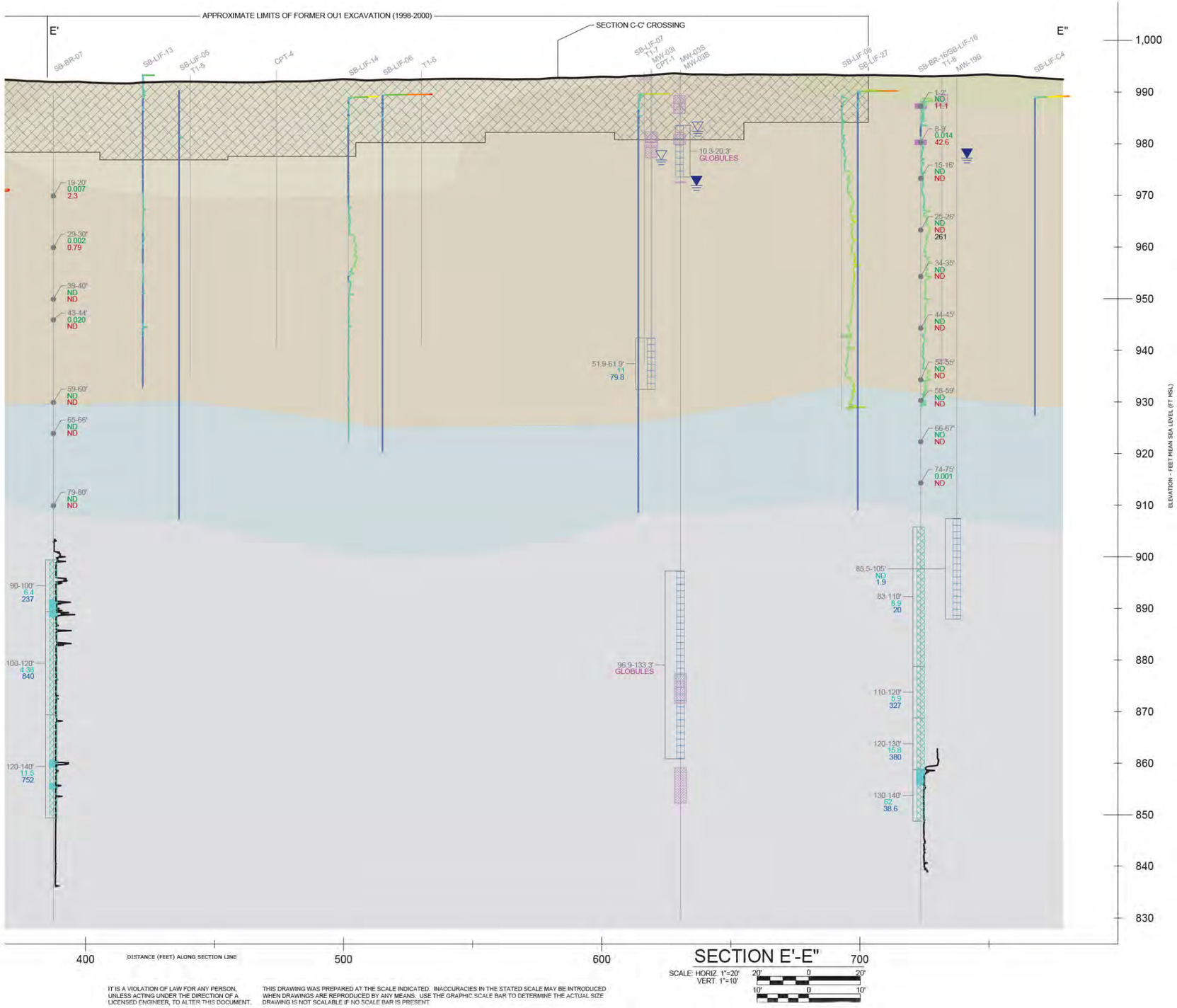


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Figure 4-23

Hydrogeologic Cross-Section E-E'



SECTION E'-E"

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

20' 0 20'
10' 0 10'

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LEGEND

- BORING / WELL LOCATION (MW-03S)
- SOIL SAMPLE LOCATION (9-10')
- SOIL RESULTS - BTEX (mg/kg) (ND)
- SOIL RESULTS - SVOCs (mg/kg) (ND)
- SOIL RESULTS - TPH (mg/kg) (261)
- MONITORING WELL SCREEN (40-50')
- PACKER TEST SCREEN (120-130')
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022)
- GROUNDWATER RESULTS - BTEX (ug/L) (0.003)
- GROUNDWATER RESULTS - SVOCs (ug/L) (0.054)
- GROUNDWATER RESULTS - TPH (ug/L) (2.16)
- NAPL OBSERVATION IN GROUNDWATER (GLOBULES)
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED (1999 INVESTIGATION
- LIF RESPONSE - OVERBURDEN (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- NO DETECT (ND)

NOTES

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Figure 4-24

Hydrogeologic Cross-Section E'-E"

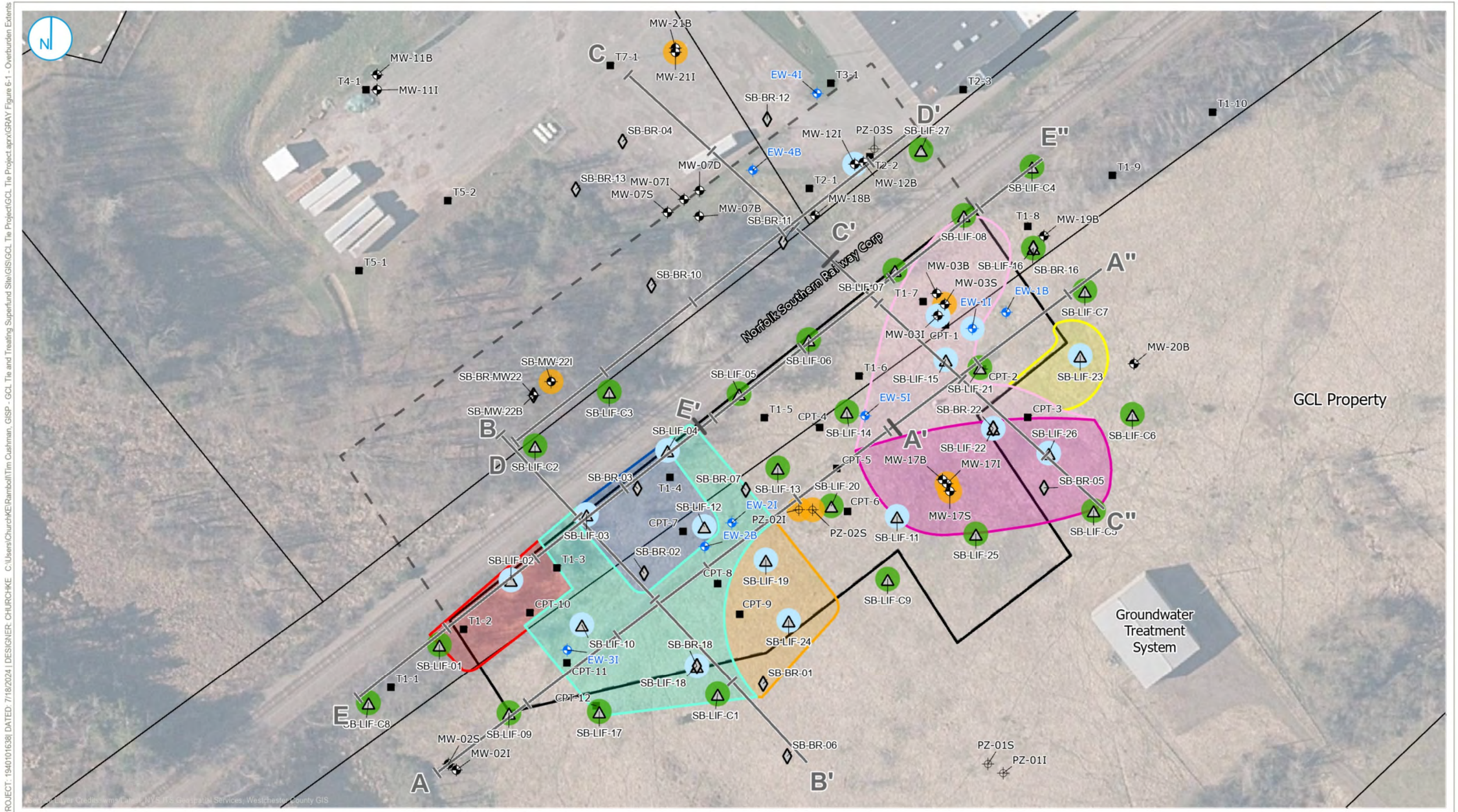
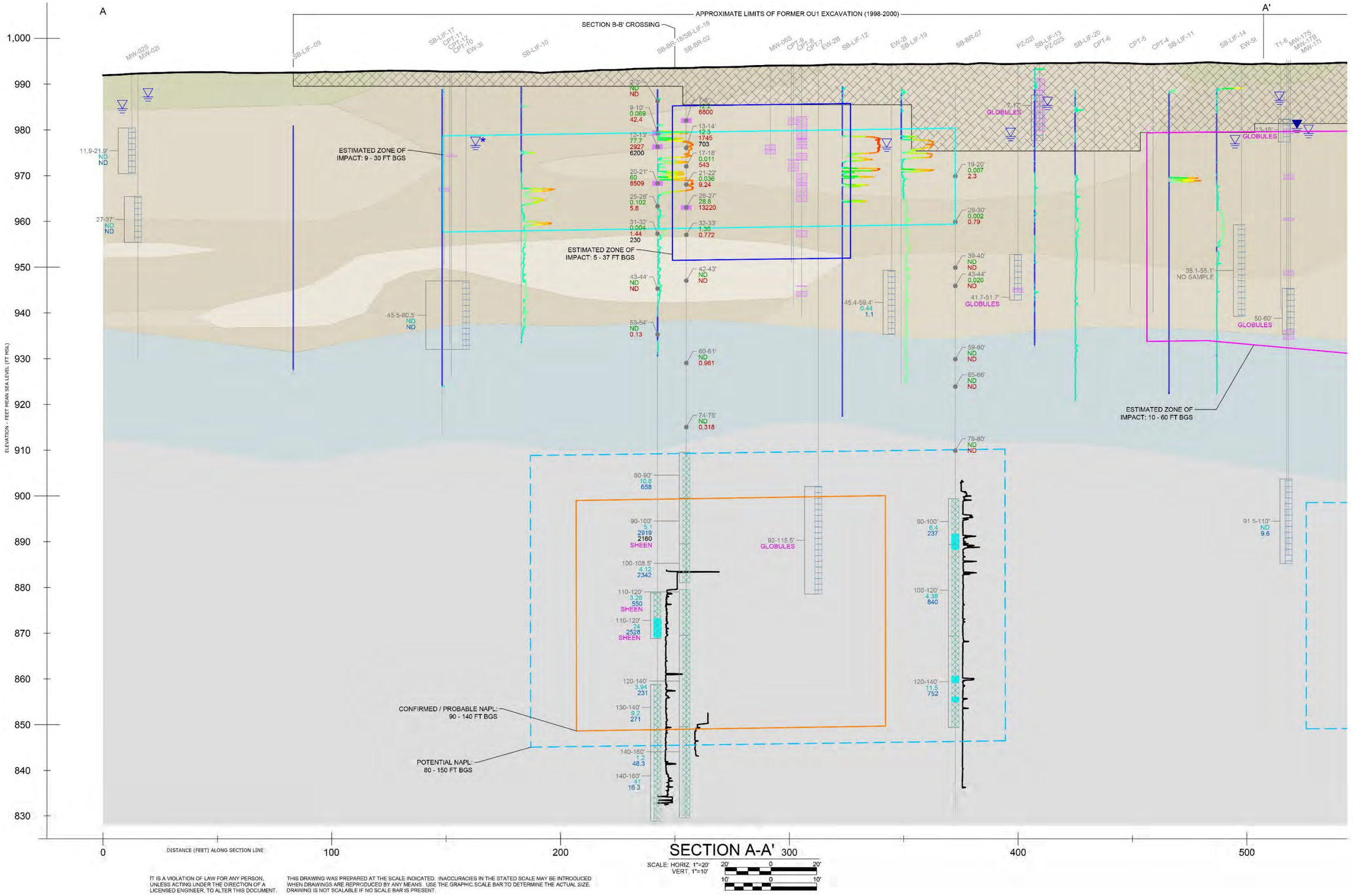


Figure 6-1

Potential Extent of NAPL in Shallow and Intermediate Water Bearing Unit



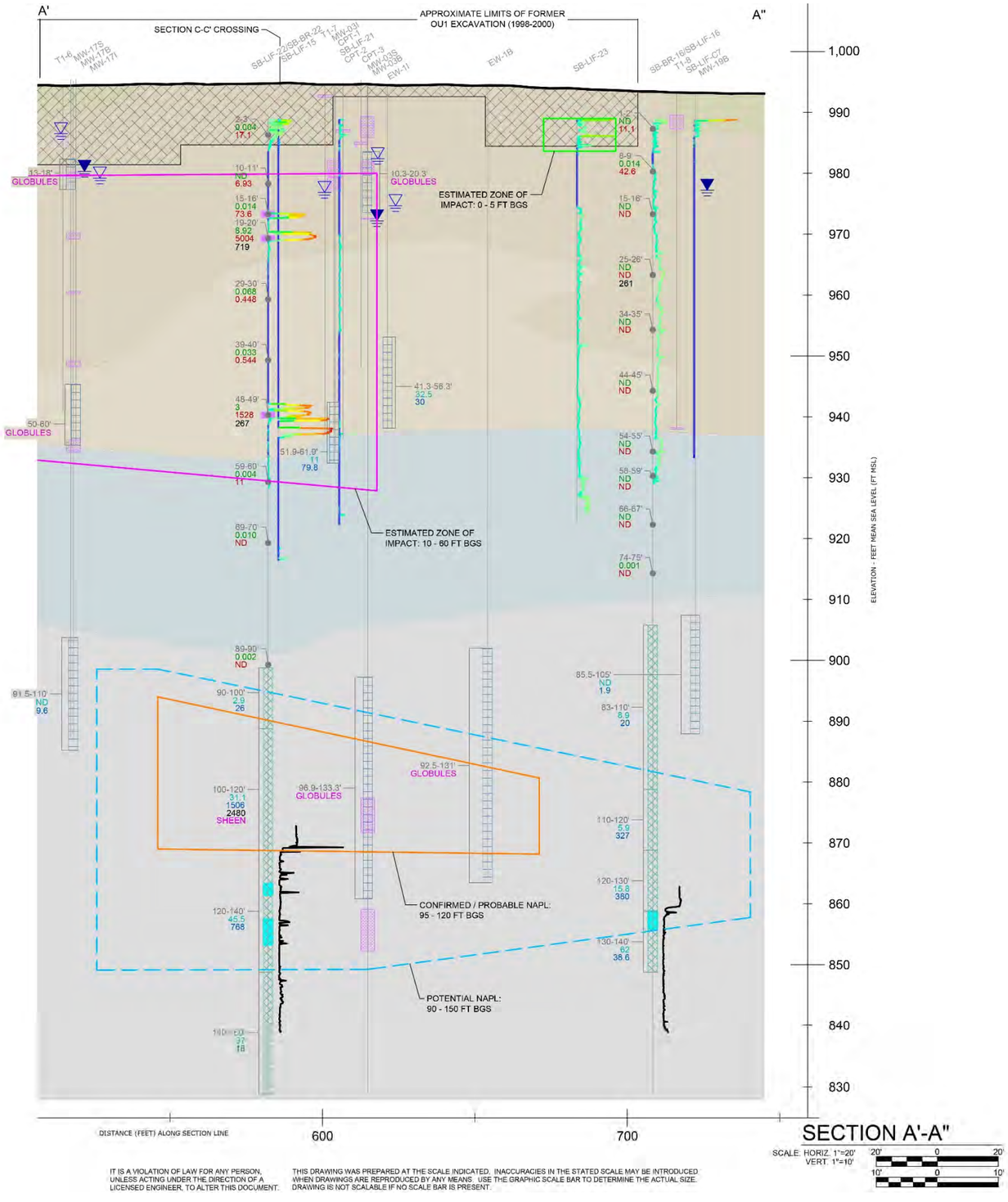
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Indications of NAPL in the “Former OU1 Excavation Area” are historic indications of NAPL and do not indication the current presence of NAPL post OU1 remediation

Figure 6-2

Hydrogeologic Cross-Section with NAPL A-A’



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LEGEND

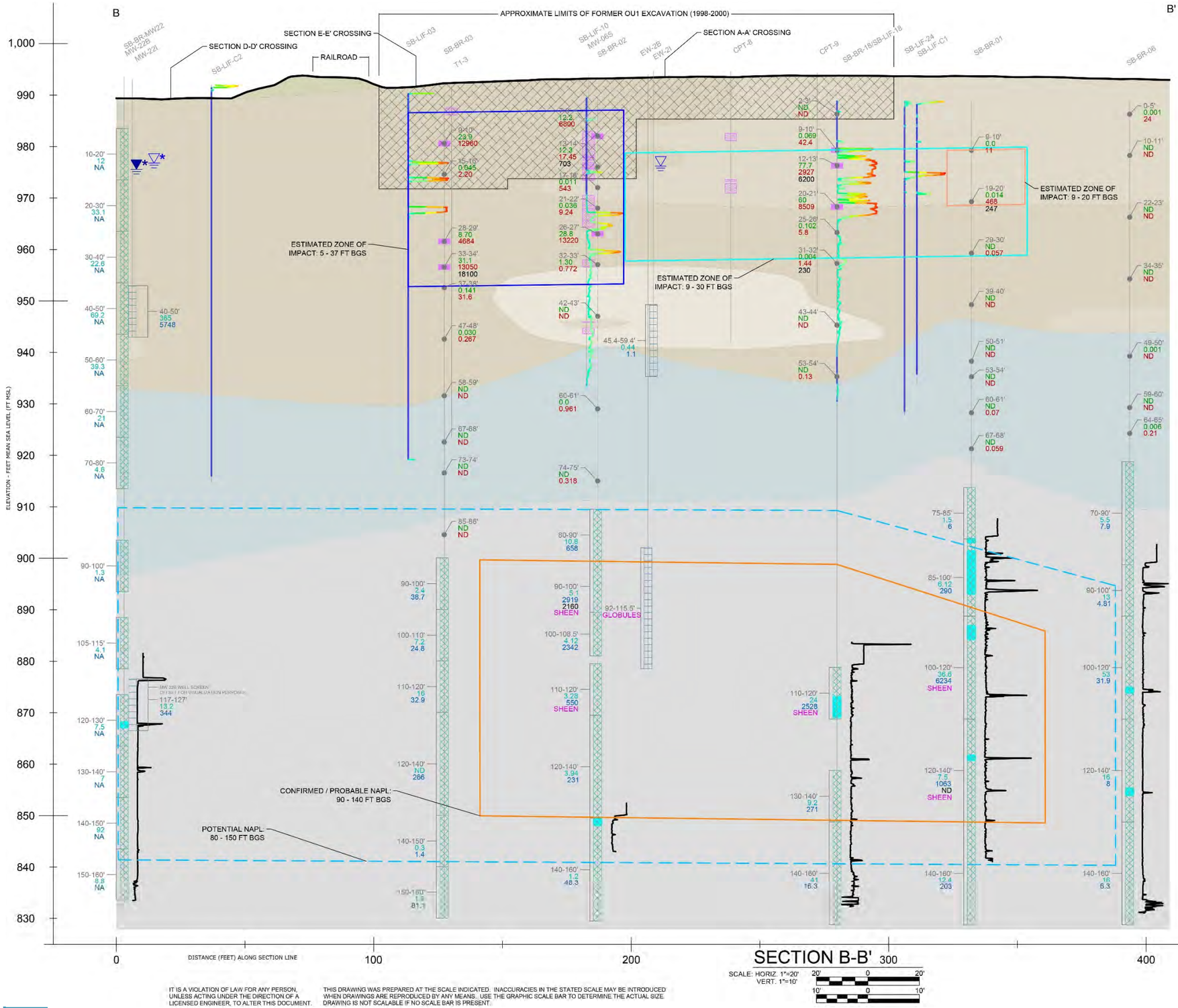
- BORING / WELL LOCATION
- SOIL SAMPLE LOCATION
- SOIL RESULTS - BTEX (mg/kg)
- SOIL RESULTS - SVOCs (mg/kg)
- SOIL RESULTS - TPH (mg/kg)
- MONITORING WELL SCREEN
- PACKER TEST SCREEN
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022, *JAN. / FEB. 2023)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022)
- GROUNDWATER RESULTS - BTEX (ug/L)
- GROUNDWATER RESULTS - SVOCs (ug/L)
- GROUNDWATER RESULTS - TPH (ug/L)
- NAPL OBSERVATION IN GROUNDWATER
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- GRAVEL / COBBLES
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED (1999 INVESTIGATION)
- LIF RESPONSE - OVERBURDEN (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- NO DETECT
- ESTIMATED ZONE OF IMPACT: 0 - 5 FT BGS
- ESTIMATED ZONE OF IMPACT: 9 - 30 FT BGS
- ESTIMATED ZONE OF IMPACT: 5 - 37 FT BGS
- ESTIMATED ZONE OF IMPACT: 10 - 60 FT BGS
- CONFIRMED / PROBABLE NAPL
- POTENTIAL NAPL [3]

NOTES

1. Boring locations depicted may not match the ground surface due to locations being projected to the profile line.
2. Sample results depicted are from soil borings, monitoring wells or packer tests collected during the 2022-2023 PDI Investigation.
3. The vertical interval of the potential NAPL extent area was estimated based on indirect indications of NAPL. The impacted vertical interval may or may not be continuous throughout the potential NAPL impact area and is drawn to show the estimated extents of where potential NAPL may exist.

Figure 6-3

Hydrogeologic Cross-Section with NAPL A'-A"



LEGEND

- BORING / WELL LOCATION
- SOIL SAMPLE LOCATION
- SOIL RESULTS - BTEX (mg/kg)
- SOIL RESULTS - SVOCs (mg/kg)
- SOIL RESULTS - TPH (mg/kg)
- MONITORING WELL SCREEN
- PACKER TEST SCREEN
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022, *JAN. / FEB. 2023)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022) *
- GROUNDWATER RESULTS - BTEX (ug/L)
- GROUNDWATER RESULTS - SVOCs (ug/L)
- GROUNDWATER RESULTS - TPH (ug/L)
- NAPL OBSERVATION IN GROUNDWATER
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- GRAVEL / COBBLES
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED (1999 INVESTIGATION)
- LIF RESPONSE - OVERBURDEN (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- NA NOT ANALYZED
- ND NO DETECT
- ESTIMATED ZONE OF IMPACT: 9 - 20 FT BGS
- ESTIMATED ZONE OF IMPACT: 9 - 30 FT BGS
- ESTIMATED ZONE OF IMPACT: 5 - 37 FT BGS
- CONFIRMED / PROBABLE NAPL
- POTENTIAL NAPL [3]

NOTES

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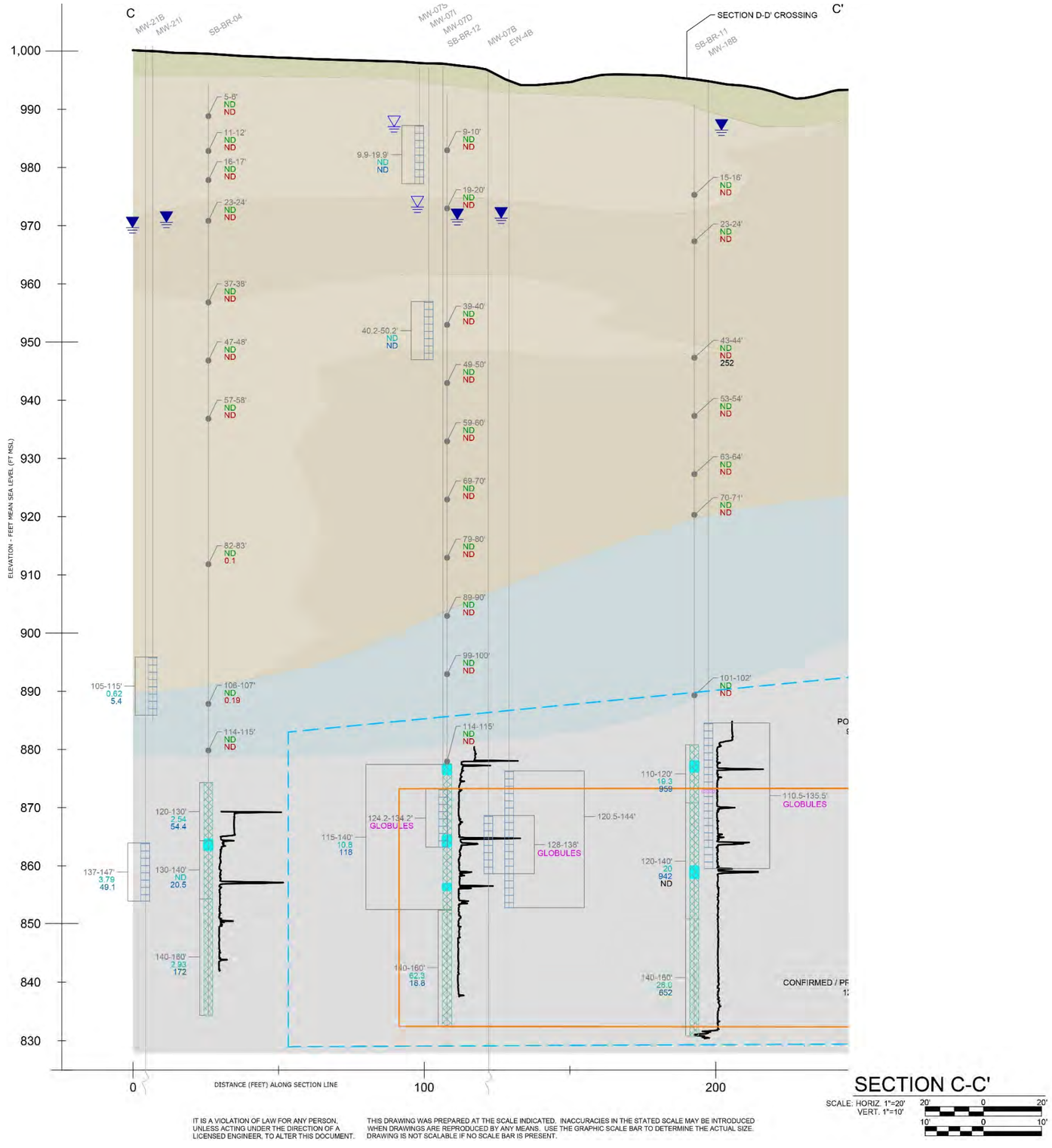
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Indications of NAPL in the “Former OU1 Excavation Area” are historic and do not indication the current presence of NAPL post OU1 remediation.

Figure 6-4

Hydrogeologic Cross-Section with NAPL B-B’

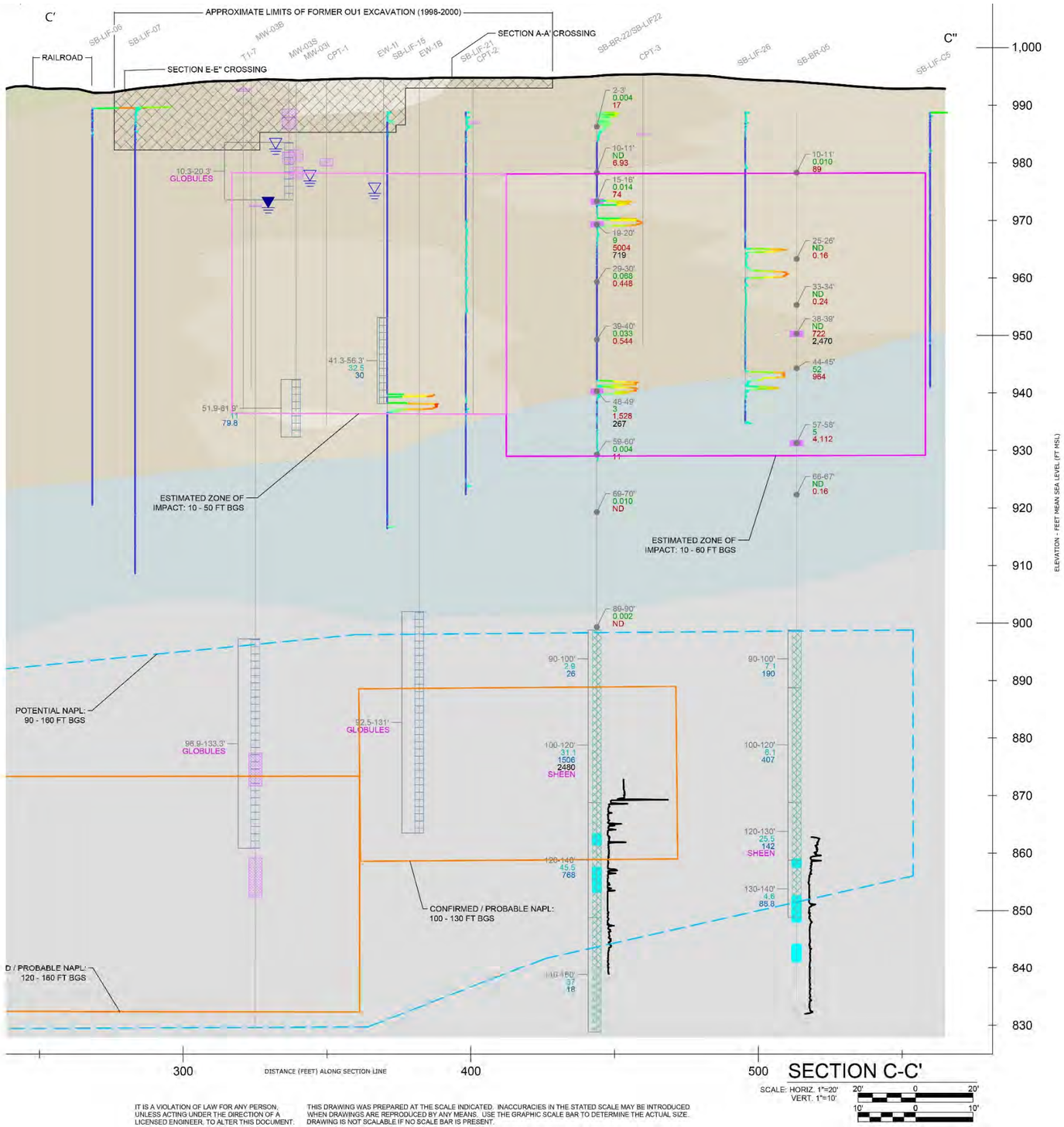


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Figure 6-5

Hydrogeologic Cross-Section with NAPL C-C'



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LEGEND

- BORING / WELL LOCATION
- SOIL SAMPLE LOCATION
- SOIL RESULTS - BTEX (mg/kg)
- SOIL RESULTS - SVOCs (mg/kg)
- SOIL RESULTS - TPH (mg/kg)
- MONITORING WELL SCREEN
- PACKER TEST SCREEN
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022)
- GROUNDWATER RESULTS - BTEX (ug/L)
- GROUNDWATER RESULTS - SVOCs (ug/L)
- GROUNDWATER RESULTS - TPH (ug/L)
- NAPL OBSERVATION IN GROUNDWATER
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- GRAVEL / COBBLES
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION)
- HISTORIC NAPL OBSERVED (1999 INVESTIGATION)
- LIF RESPONSE - OVERBURDEN (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- NO DETECT
- ESTIMATED ZONE OF IMPACT: 10 - 50 FT BGS
- ESTIMATED ZONE OF IMPACT: 10 - 60 FT BGS
- CONFIRMED / PROBABLE NAPL
- POTENTIAL NAPL [3]

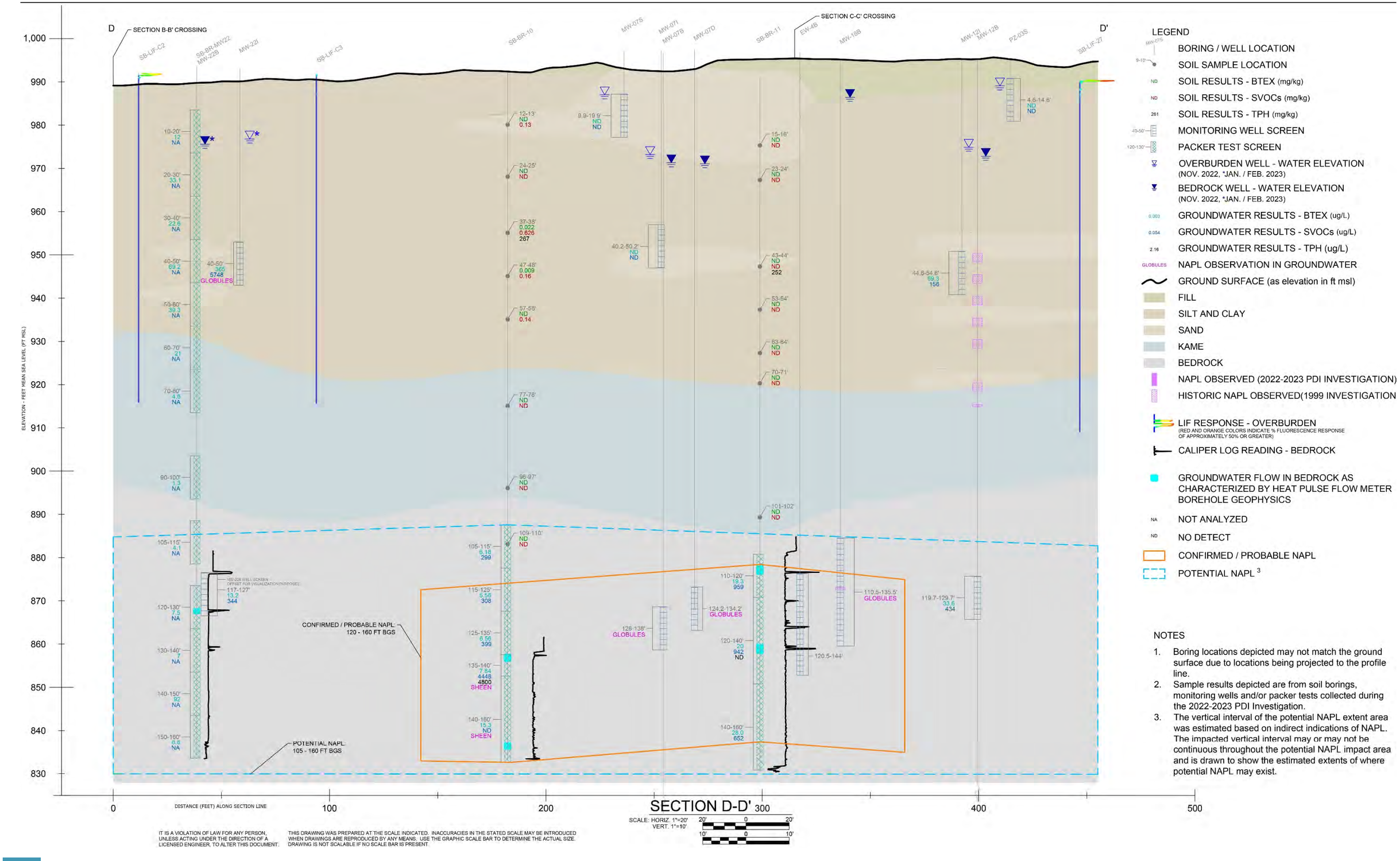
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Indications of NAPL in the “Former OU1 Excavation Area” are historic and do not indication the current presence of NAPL post OU1 remediation.

Figure 6-6

Hydrogeologic Cross-Section with NAPL C’-C”



NOTES

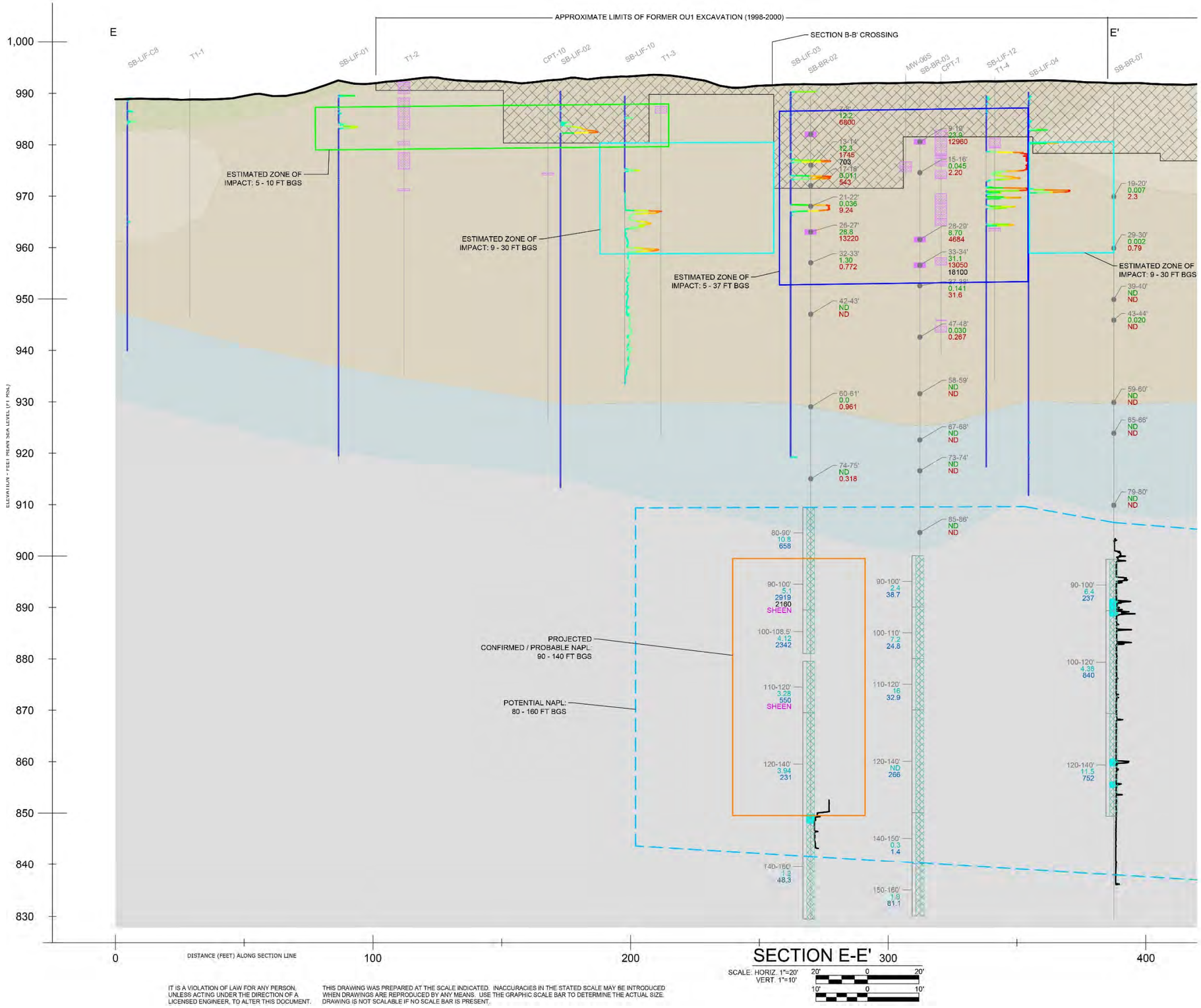
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2. Sample results depicted are from soil borings, monitoring wells and/or packer tests collected during the 2022-2023 PDI Investigation.
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Figure 6-7

Hydrogeologic Cross-Section with NAPL D-D'



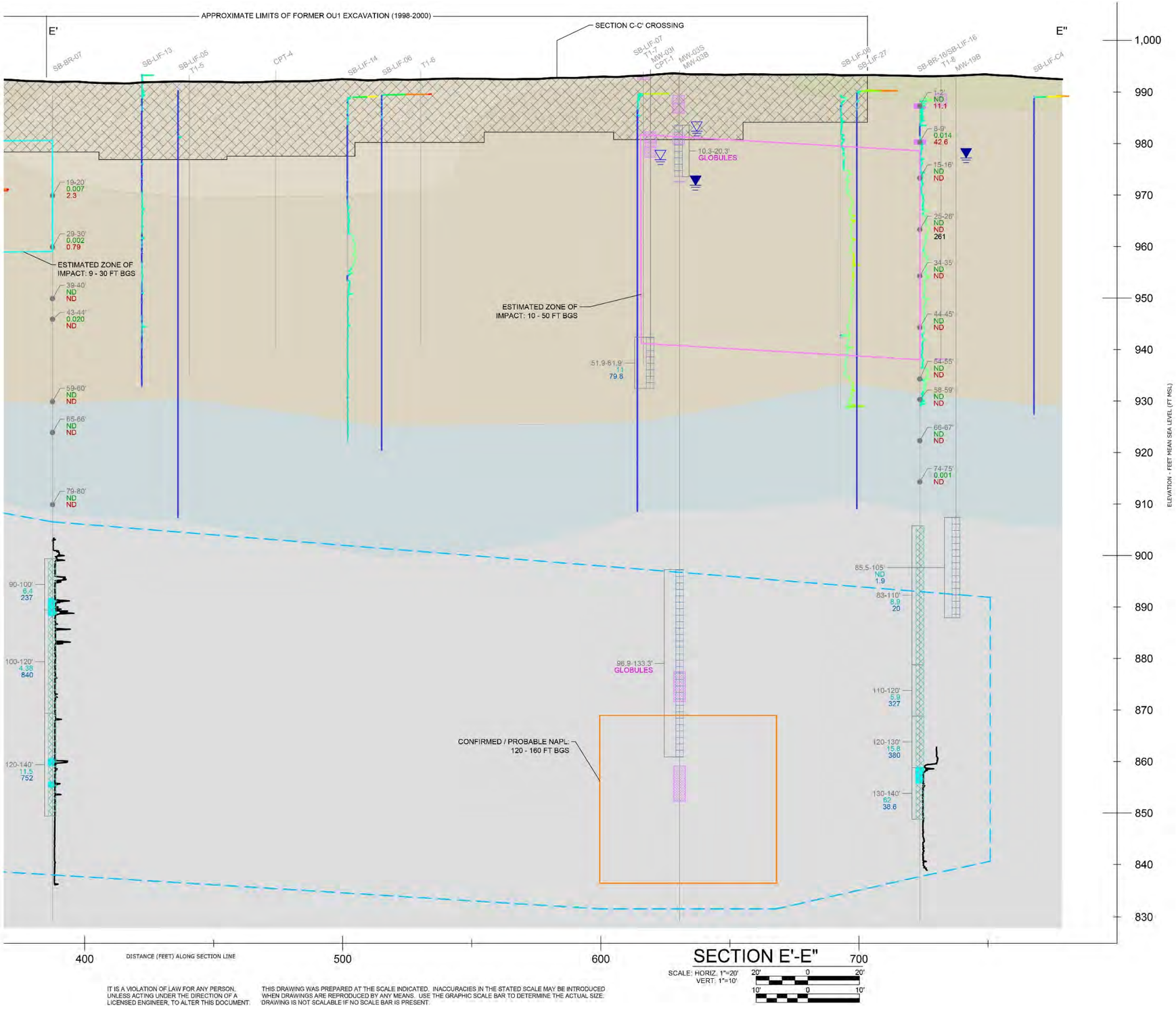
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Indications of NAPL in the “Former OU1 Excavation Area” are historic and do not indication the current presence of NAPL post OU1 remediation.

Figure 6-8

Hydrogeologic Cross-Section with NAPL E-E’



SECTION E'-E"

SCALE: HORIZ. 1"=20' 20' 0 20'
VERT. 1"=10' 10' 0 10'

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LEGEND

- BORING / WELL LOCATION (MW-07S)
- SOIL SAMPLE LOCATION (9-10')
- SOIL RESULTS - BTEX (mg/kg) (ND)
- SOIL RESULTS - SVOCs (mg/kg) (ND)
- SOIL RESULTS - TPH (mg/kg) (261)
- MONITORING WELL SCREEN (40-50')
- PACKER TEST SCREEN (120-130')
- OVERBURDEN WELL - WATER ELEVATION (NOV. 2022)
- BEDROCK WELL - WATER ELEVATION (NOV. 2022)
- GROUNDWATER RESULTS - BTEX (ug/L) (0.003)
- GROUNDWATER RESULTS - SVOCs (ug/L) (0.054)
- GROUNDWATER RESULTS - TPH (ug/L) (2.16)
- NAPL OBSERVATION IN GROUNDWATER (GLOBULES)
- GROUND SURFACE (as elevation in ft msl)
- APPROX. LIMITS OF FORMER OU1 EXCAVATION (1998-2000)
- FILL
- SILT AND CLAY
- SAND
- KAME
- BEDROCK
- NAPL OBSERVED (2022-2023 PDI INVESTIGATION
- HISTORIC NAPL OBSERVED (1999 INVESTIGATIO
- LIF RESPONSE - OVERBURDEN (RED AND ORANGE COLORS INDICATE % FLUORESCENCE RESPONSE OF APPROXIMATELY 50% OR GREATER)
- CALIPER LOG READING - BEDROCK
- GROUNDWATER FLOW IN BEDROCK AS CHARACTERIZED BY HEAT PULSE FLOW METER BOREHOLE GEOPHYSICS
- NO DETECT (ND)
- ESTIMATED ZONE OF IMPACT: 5 - 10 FT BGS
- ESTIMATED ZONE OF IMPACT: 9 - 30 FT BGS
- ESTIMATED ZONE OF IMPACT: 5 - 37 FT BGS
- ESTIMATED ZONE OF IMPACT: 10 - 50 FT BGS
- CONFIRMED / PROBABLE NAPL
- POTENTIAL NAPL [3]

NOTES

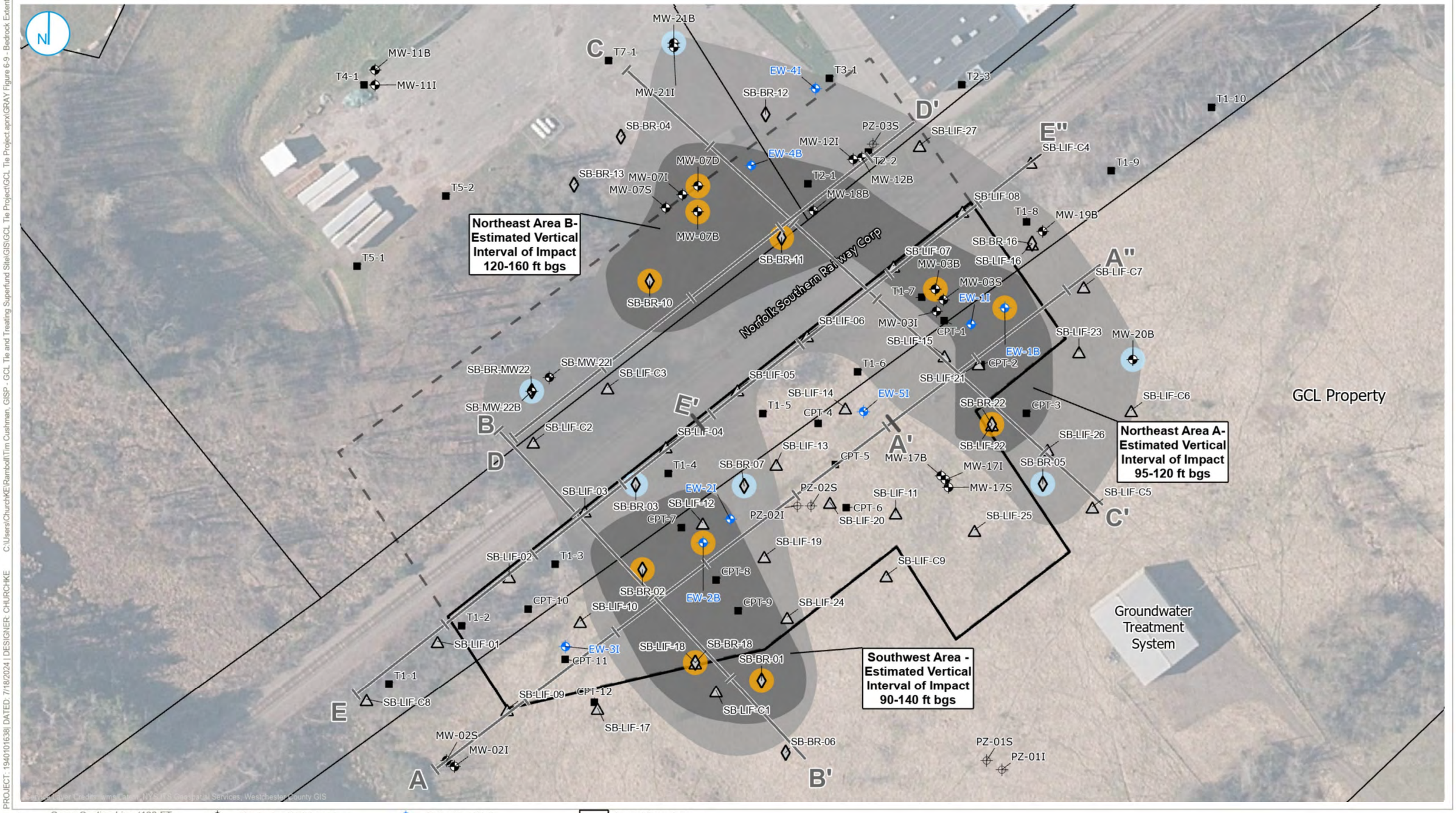
1. Boring locations depicted may not match the ground surface due to locations being projected to the profile line.
2. Sample results depicted are from soil borings, monitoring wells or packer tests collected during the 2022-2023 PDI Investigation.
3. The vertical interval of the potential NAPL extent area was estimated based on indirect indications of NAPL. The impacted vertical interval may or may not be continuous throughout the potential NAPL impact area and is drawn to show the estimated extents of where potential NAPL may exist.

Indications of NAPL in the “Former OU1 Excavation Area” are historic and do not indication the current presence of NAPL post OU1 remediation.

Figure 6-9

Hydrogeologic Cross-Section with NAPL E’-E”

PROJECT: 1940101638| DATED: 7/18/2024 | DESIGNER: CHURCHKE C:\Users\ChurchKE\Ramboll\Tim Cushman, GISP - GCL Tie and Treating Superfund Site\GIS\GCL Tie Project\GCL Tie Project.aprx\GRAY Figure 6-9 - Bedrock Extents



Aerial Photo Layer Credits: Sources: Esri, HERE, Garmin, NGA, USGS, NYS ITS Geospatial Services, Westchester County GIS

Cross-Section Line (100 FT Interval)
Confirmed/Probable NAPL Extents
Potential NAPL Extents
Monitoring Well Location
Bedrock Soil Boring Location
LIF Soil Boring
Piezometer Location
Extraction Well
Historical CPT Locations
Limits of Former OU1 Excavation
Limits of Target Remediation Zone (2020 ROD)
Parcel Boundary
Confirmed/Probable NAPL Impact
Potential NAPL Impact

Notes:
Definitions of Confirmed/Probable and Potential NAPL extents criteria are provided in Section 6 of the PDI Report

0 80 160 Feet

Legend

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Figure 6-10
Potential Extent of NAPL in Bedrock Water Bearing Unit

APPENDIX A

HDR OBG a joint venture

May 6, 2022

Mr. Lucas Cipperly

Environmental Analyst, Division of Environmental Permits

NYSDEC – Region 4

65561 State Highway 10

Stamford, NY 12167

Re: GCL Tie and Treating Superfund Site (DEC Site #413011)

Village of Sidney, Delaware County, New York

Article 24 – Permit Equivalency – Preliminary Design Investigation

Dear Mr. Cipperly:

HDR OB a Joint Venture (HDR OBG JV) is planning to conduct a Preliminary Design Investigation at the United Sates Environmental Protection Agency (USEPA) GCL Tie and Treating Superfund Site (DEC Site #413011) in the Village of Sidney, Delaware County, NY in the Spring of 2022. The work is proximate to NYSDEC Wetland SD-2 (Class 1).

HDR OBG JV has been contracted by the United States Army Corps of Engineers, Kansas City District (USACE) to perform a Preliminary Design Investigation (PDI) at the GCL Tie and Treating Superfund Site (the Site), Village of Sidney, Delaware County, New York. This application is being submitting on behalf of USEPA in order conduct the PDI. Historically, creosote, which contains polycyclic aromatic hydrocarbons (PAHs), is known to have been released in large quantities, and contaminated the soils over a large area of the Site. **Figure 1** shows the site location. **Figure 2** shows the current site configuration with mapped Federal and State Regulated Wetlands. HDR OBG JV is completing the PDI at the Site to fill data gaps required for preparation of the Remedial Design (RD).

The PDI will include the drilling and installation of two (2) monitoring wells up to 160 feet below ground surface, thirty (30) direct push soil borings up to 100 feet below ground surface and 12 conventional drilled borings up to approximately 160 feet below ground surface. These locations are shown on **Figure 3**. Approximately 10 direct push boring locations and 5 conventional drilled locations fall within the mapped wetlands. Several more locations fall within the 100-foot buffer. It is anticipated that the direct push borings will be completed with a track mounted Geoprobe direct push rig and the conventional borings and monitoring wells will be completed with a track mounted or rubber tire mounted rotary drill rig. Soft ground will be protected with temporary ground protection mats. All investigation derived waste (IDW) will be containerized for disposal off site by an IDW subcontractor. Each direct push and conventional boring will be sealed upon

completion by filling the borings with cement-bentonite grout. There will be no fill or permanent structures/monitoring wells above ground surface within the mapped wetlands and buffer.

The NYSDEC wetland boundary proximate to the proposed work area was delineated on April 13, 2022 by HDR OBG JV wetlands scientists. Based on the wetland delineation line and the proposed sampling plan, 15 borings will be located within the wetland and 16 borings will be located within the 100-foot adjacent area.

We have enclosed the following materials for your review:

- Figures 1-3
- A completed Joint Application for Permit form
- A completed SEQR Short Environmental Assessment Form
- EAF Mapper Printout
- Article 24 Permit Equivalency mapping of the proposed sampling area with the HDR OBG JV-delineated wetland boundary and 100-foot adjacent area indicated (Permit Equivalency Figures 1 &2)
- A narrative of the proposed boring/sampling plan
- Wetland delineation data sheets
- Representative photographs of the proposed sampling area

Thank you for your time and attention to this project. If you have any questions or wish to arrange a site visit, please call.

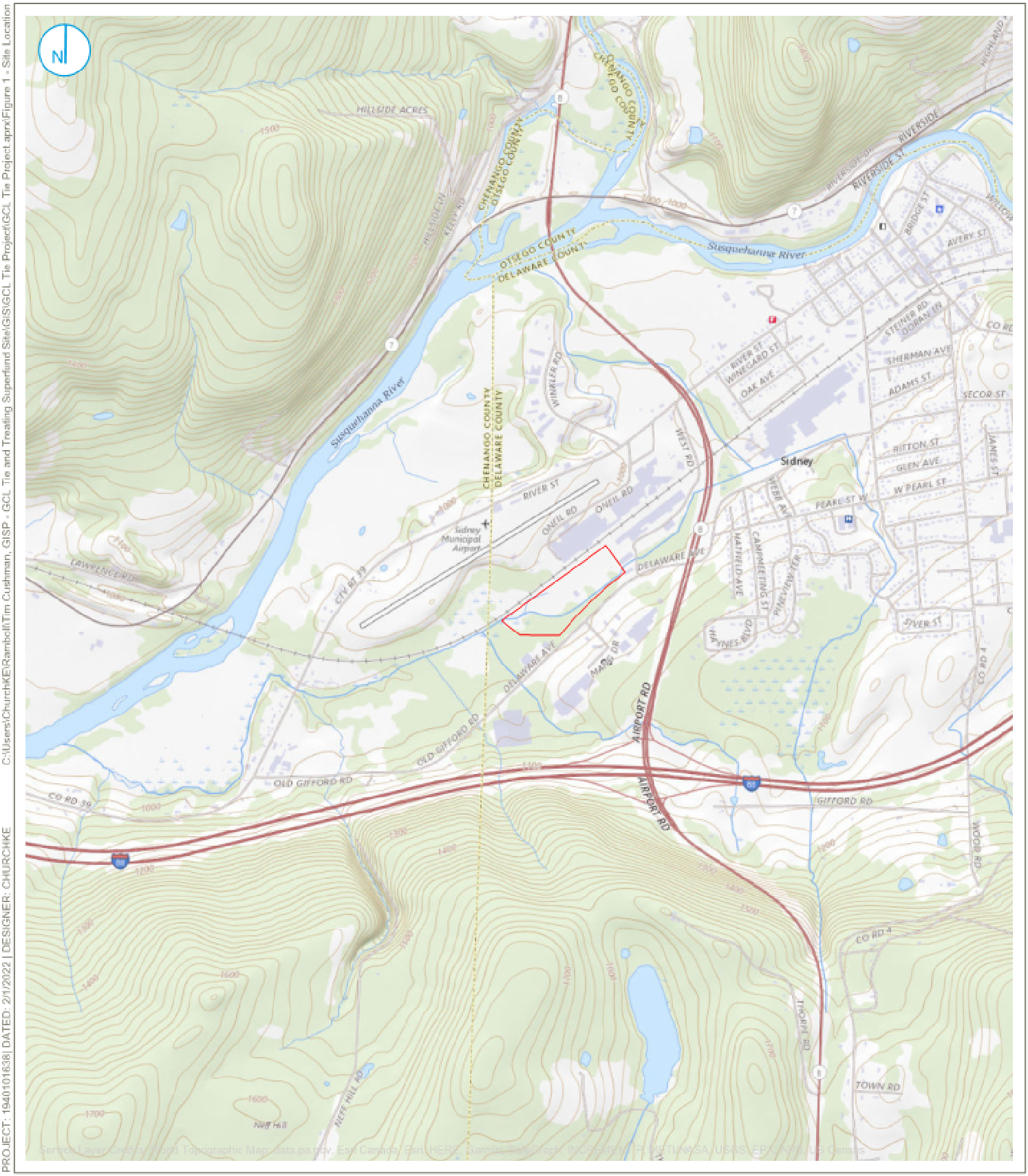
Sincerely,
HDR OBG a Joint Venture

Daniel J. St. Germain, PG
Project Manager

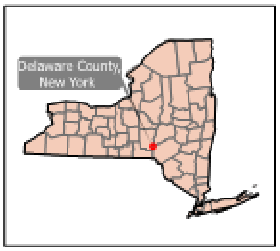
Attachments

cc:

Figures



PROJECT: 194010163B | DATED: 2/1/2022 | DESIGNER: CHURCHKE C:\Users\ChurchKE\Ramboll\Tim Cushman, GISP - GCL Tie and Treating Superfund Site\GIS\GCL Tie Project\GCL Tie Project.aprx\Figure 1 - Site Location



GCL Property Boundary

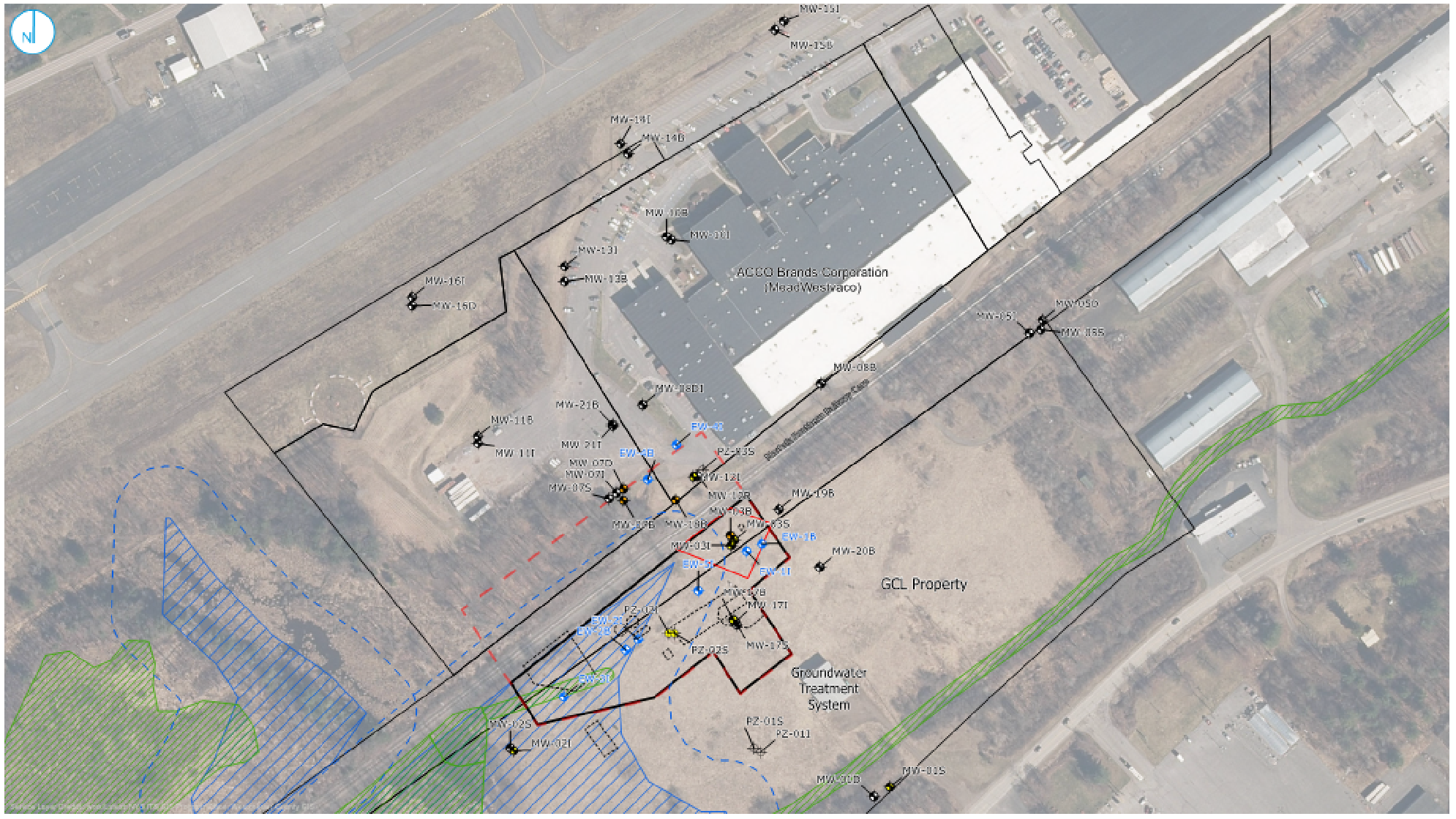
0 1,000 2,000 Feet

SITE LOCATION

GCL Tie and Treating Site, OU3
Sidney, New York

FIGURE 01

HDR OBG a joint venture



- Monitoring Well
- Monitoring Well, Odor and/or Sheen Historically Noted
- Monitoring Well, Visible NAPL Historically Noted
- Extraction Well
- Piezometer
- Piezometer, Odor and/or Sheen Historically Noted
- Limits of Former OU1 Excavation
- Limits of Proposed Thermal Conductive Heating Remedy in the Intermediate Zone
- Federally Regulated Wetlands
- State Regulated Wetlands
- Limits of Target Remediation Zone (2020 ROD)
- Parcel Boundary
- Historical Site Features
- State wetlands regulated adjacent area (100-ft buffer zone)

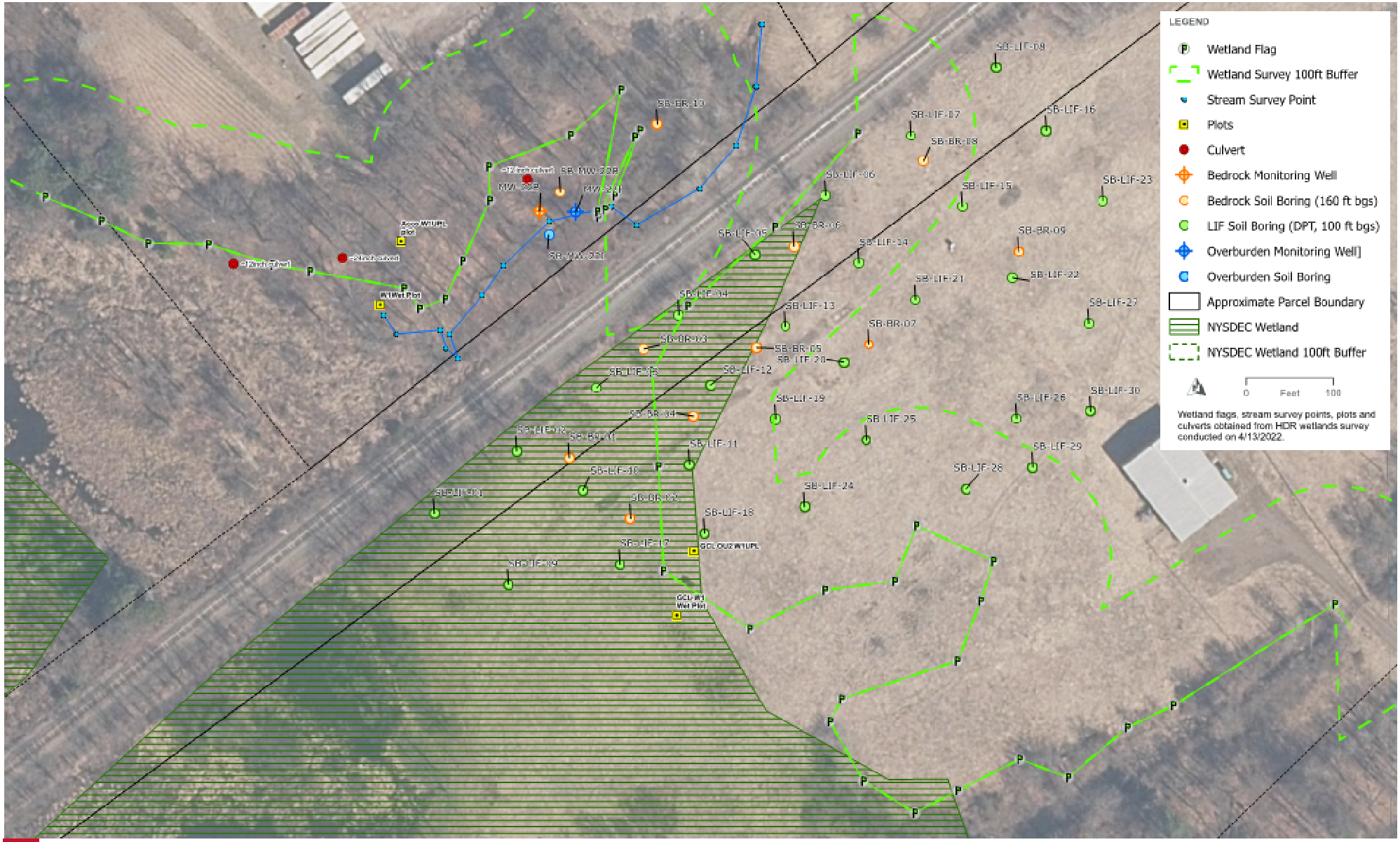
0 90 180 Feet

SITE PLAN

FIGURE 02

GCL Tie and Treating Site, OU3
Sidney, New York

HDR OBG a joint venture



ARTICLE 24 - PERMIT EQUIVALENCY - WETLANDS WITH PROPOSED PDI LOCATIONS

GCL TIE & TREAT

FIGURE 2

PRELIMINARY DESIGN INVESTIGATION

HDR OBG a joint venture

Completed Joint Application for Permit form

NEW YORK STATE | Department of Environmental Conservation | Office of General Services | Department of State

US Army Corps of Engineers

JOINT APPLICATION FORM

For Permits for activities activities affecting streams, waterways, waterbodies, wetlands, coastal areas, sources of water, and endangered and threatened species.

You must separately apply for and obtain Permits from each involved agency before starting work. Please read all instructions.

1. **Applications To:**

>NYS Department of Environmental Conservation ☑ Check here to confirm you sent this form to NYSDEC.

Check all permits that apply:

- ☐ Stream Disturbance
- ☐ Excavation and Fill in Navigable Waters
- ☐ Docks, Moorings or Platforms
- ☐ Dams and Impoundment Structures
- ☐ 401 Water Quality Certification
- ☑ Freshwater Wetlands
- ☐ Tidal Wetlands
- ☐ Wild, Scenic and Recreational Rivers
- ☐ Coastal Erosion Management
- ☐ Water Withdrawal
- ☐ Long Island Well
- ☐ Incidental Take of Endangered / Threatened Species

>US Army Corps of Engineers ☐ Check here to confirm you sent this form to USACE.

Check all permits that apply: ☐ Section 404 Clean Water Act ☐ Section 10 Rivers and Harbors Act

Is the project Federally funded? ☐ Yes ☐ No

If yes, name of Federal Agency: United States Environmental Protection Agency

General Permit Type(s), if known: NWP -6 (Survey Activities)

Preconstruction Notification: ☐ Yes ☐ No

>NYS Office of General Services ☐ Check here to confirm you sent this form to NYSOGS.

Check all permits that apply:

☐ State Owned Lands Under Water

☐ Utility Easement (pipelines, conduits, cables, etc.) ☐ Docks, Moorings or Platforms

>NYS Department of State ☐ Check here to confirm you sent this form to NYSDOS.

Check if this applies: ☐ Coastal Consistency Concurrence

2. **Name of Applicant**

United States Environmental Protection Agency

Taxpayer ID (if applicant is NOT an individual)

Mailing Address

290 Broadway, New York, NY 10007, 19th Floor
c/o Damian Duda

Post Office / City: New York

State: NY

Zip: 10007

Telephone: 212-637-4269

Email: Duda.Damian@epa.gov

Applicant Must be (check all that apply): ☐ Owner ☑ Operator ☐ Lessee

3. **Name of Property Owner (if different than Applicant)**

G.C.L. TIE AND TREATING, INC. (Defunct)

Mailing Address

Contact Applicant

Post Office / City:

State:

Zip:

Telephone:

Email:

For Agency Use Only	Agency Application Number:

4. **Name of Contact / Agent**

Daniel St. Germain

Mailing Address	Post Office / City	State	Zip
1 International Boulevard, 10th Floor, Suite 1000	Mahwah	NJ	07495

Telephone 201-335-9338 Email Daniel.StGermain@hdrinc.com

5. **Project / Facility Name**

GCL Tie and Treating Superfund Site (NYSDEC #413011)

Property Tax Map Section / Block / Lot Number: 138. - 1 - 3.2

Project Street Address, if applicable	Post Office / City	State	Zip
Delaware Ave	Sidney	NY	13838

Provide directions and distances to roads, intersections, bridges and bodies of water

Site is west of the Town of Sidney and south of the Canadian-National rail line and north of Delaware Road.

☐ Town ☐ Village ☐ City

Sidney	County: Delaware	Stream/Waterbody Name: Class C tributaries to the Susquehanna River

Project Location Coordinates: Enter Latitude and Longitude in degrees, minutes, seconds:

Latitude: 41 ° 30 ' 13 " Longitude: 75 ° 41 ' 06 "

6. **Project Description:** Provide the following information about your project. Continue each response and provide any additional information on other pages. **Attach plans on separate pages.**

a. Purpose of the proposed project:

The Preliminary Design Iinvestigation will include the drilling and installation of two (2) monitoring wells up to 160 feet below ground surface, thirty (30) direct push soil borings up to 100 feet below ground surface and 12 conventional drilled borings up to approximately 160 feet below ground surface.

b. Description of current site conditions:

Land is a currently vacant, former industrial site. Southerly portion of the work area is within NYSDEC Freshwater Wetland SD-2 (Class 1) and its 100-foot adjacent area.

c. Proposed site changes:

Only physical change to the site will be the stick-ups from the monitoring wells.

d. Type of structures and fill materials to be installed, and quantity of materials to be used (e.g., square feet of coverage, cubic yards of fill material, structures below ordinary/mean high water, etc.):

There will be no fill associated with the project.

e. Area of excavation or dredging, volume of material to be removed, location of dredged material placement:

Not applicable to the proposed work. No material will be excavated from or placed on the site with the exception of drilling cuttings which will be containerized and removed from the site.

f. Is tree cutting or clearing proposed? ☐ Yes If Yes, explain below. ☐ No

Timing of the proposed cutting or clearing (month/year):

Number of trees to be cut: Acreage of trees to be cleared:

g. Work methods and type of equipment to be used:

Track-mounted Geoprobe direct push rig, track-mounted or rubber tire-mounted rotary drilling rig.

h. Describe the planned sequence of activities:

1.) Mobilize drilling equipment and install timber matting for access. 2.) Install borings and monitoring wells. 3.) Demobilize equipment and remove timber matting.

i. Pollution control methods and other actions proposed to mitigate environmental impacts:

Impacts will be minimized by use of balloon tires on the Geoprobe and small drilling rigs. Wetlands soils will be protected by use of timber matting for vehicle access. All drilling cuttings will be containerized and removed from the site.

j. Erosion and silt control methods that will be used to prevent water quality impacts:

See Response to Item i.

k. Alternatives considered to avoid regulated areas. If no feasible alternatives exist, explain how the project will minimize impacts:

There is no alternative to collecting samples within the wetland and adjacent area to adequately characterize the presence of and extent of contamination. See the Response to Item i for impact minimization measures.

l. Proposed use: ☐ Private ☐ Public ☐ Commercial

m. Proposed Start Date: 6/2022 Estimated Completion Date: 12/31/22

n. Has work begun on project? ☐ Yes If Yes, explain below. ☐ No

o. Will project occupy Federal, State, or Municipal Land? ☐ Yes If Yes, explain below. ☐ No

p. List any previous DEC, USACE, OGS or DOS Permit / Application numbers for activities at this location:

NYSDEC Site #413011.

q. Will this project require additional Federal, State, or Local authorizations, including zoning changes?

☐ Yes If Yes, list below. ☐ No

7. **Signatures.**

Applicant and Owner (If different) must sign the application. If the applicant is the landowner, the **landowner attestation form** can be used as an electronic signature as an alternative to the signature below, if necessary. Append additional pages of this Signature section if there are multiple Applicants, Owners or Contact/Agents.

I hereby affirm that information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief.

Permission to Inspect - I hereby consent to Agency inspection of the project site and adjacent property areas. Agency staff may enter the property without notice between 7:00 am and 7:00 pm, Monday - Friday. Inspection may occur without the owner, applicant or agent present. If the property is posted with "keep out" signs or fenced with an unlocked gate, Agency staff may still enter the property. Agency staff may take measurements, analyze site physical characteristics, take soil and vegetation samples, sketch and photograph the site. I understand that failure to give this consent may result in denial of the permit(s) sought by this application.

False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the NYS Penal Law. Further, the applicant accepts full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agrees to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from said project. In addition, Federal Law, 18 U.S.C., Section 1001 provides for a fine of not more than $10,000 or imprisonment for not more than 5 years, or both where an applicant knowingly and willingly falsifies, conceals, or covers up a material fact; or knowingly makes or uses a false, fictitious or fraudulent statement.

Signature of Applicant | Date

Applicant Must be (check all that apply): ☐ Owner ☐ Operator ☐ Lessee

Printed Name: Damian Duda | Title: USEPA Section Chief

Signature of Owner (if different than Applicant): G.C.L. TIE AND TREATING, INC. (Defunct) | Date

Printed Name: Contact Applicant | Title:

Signature of Contact / Agent | Date: 5/06/2022

Printed Name: Daniel St. Germain | Title: Project Manager

For Agency Use Only **DETERMINATION OF NO PERMIT REQUIRED**

Agency Application Number

(Agency Name) has determined that No Permit is required from this Agency for the project described in this application.

Agency Representative:

Printed Name | Title

Signature | Date

HDR OBG a joint venture

Completed SEQR Short Environmental Assessment Form

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

United States Environmental Protection Agency (USEPA)

Name of Action or Project:

GCL Tie and Treating Superfund Site; DEC #413011

Project Location (describe, and attach a location map):

Map attached. Site is located north and west of the I-88 and Airport Road intersection.

Brief Description of Proposed Action:

The Preliminary Design Iinvestigation will include the drilling and installation of two (2) monitoring wells up to 160 feet below ground surface, thirty (30) direct push soil borings up to 100 feet below ground surface and 12 conventional drilled borings up to approximately 160 feet below ground surface. These locations are shown on Figure 3. Approximately 10 direct push boring locations and 5 conventional drilled locations fall within the mapped wetlands. Several more locations fall within the NYSDEC Freshwater Wetlands 100-foot buffer. It is anticipated that the direct push borings will be completed with a track mounted Geoprobe direct push rig and the conventional borings and monitoring wells will be completed with a track mounted or rubber tire mounted rotary drill rig. Soft ground will be protected with temporary ground protection mats. All investigation derived waste (IDW) will be containerized for disposal off site by an IDW subcontractor. Each direct push and conventional boring will be sealed upon completion by filling the borings with cement-bentonite grout. There will be no fill or permanent structures/monitoring wells above ground surface within the mapped wetlands and buffer.

Name of Applicant or Sponsor:	Telephone: 212-637-4269
United States Environmental Protection Agency c/o Damian Duda	E-Mail: Duda.Damian@epa.gov

Address:

290 Broadway, 19th Floor

City/PO:	State:	Zip Code:
New York	NY	10007

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☐	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: NYSDEC - Freshwater Wetlands Permit Equivalency Project is funded by the USEPA	☐	☐

3. a. Total acreage of the site of the proposed action? 23.8 acres
   b. Total acreage to be physically disturbed? _____ acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 23.8 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☑ Rural (non-agriculture) ☑ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☐
b. Consistent with the adopted comprehensive plan?	☐	☐	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☐

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☐	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☐	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies:		
Not applicable to the proposed work	☐	☐

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____		
Not applicable to the proposed work	☐	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____		
Not applicable to the proposed work.	☐	☐

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☐	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		
Temporary disturbance of NYSDEC Wetland GP-5 and adjacent area for soil boring and well installation as part of Preliminary Design Investigation. There will be no loss of wetland area or function as a result of the project; all drilling cuttings will be removed from the site. Wetland soils will be protected by use of timber matting for construction/well drilling vehicle access.		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☑ Early mid-successional

☐ Wetland ☐ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☐	☐
16. Is the project site located in the 100-year flood plan?	☐	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☐
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☐	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☐
If Yes, briefly describe: _____ _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☐	☐
If Yes, explain the purpose and size of the impoundment: _____ _____		
~~1~~9. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☐	☐
If Yes, describe: _____ Historically, creosote, which contains polycyclic aromatic hydrocarbons, is known to have been released in large quantities, which contaminated the soils over a large area of the site.		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☐	☐
If Yes, describe: _____ Proposed work is part of a Preliminary Design Investigation for remediation of the site.		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Damian Duda _____ Date: _____

Signature: _____ Title: USEPA Section Chief

PRINT FORM

HDR OBG a joint venture

EAF Mapper Printout

Use UPDATE/INSERT ADDRESS feature in ribbon

EAF Mapper Summary Report

Tuesday, April 12, 2022 1:13 PM

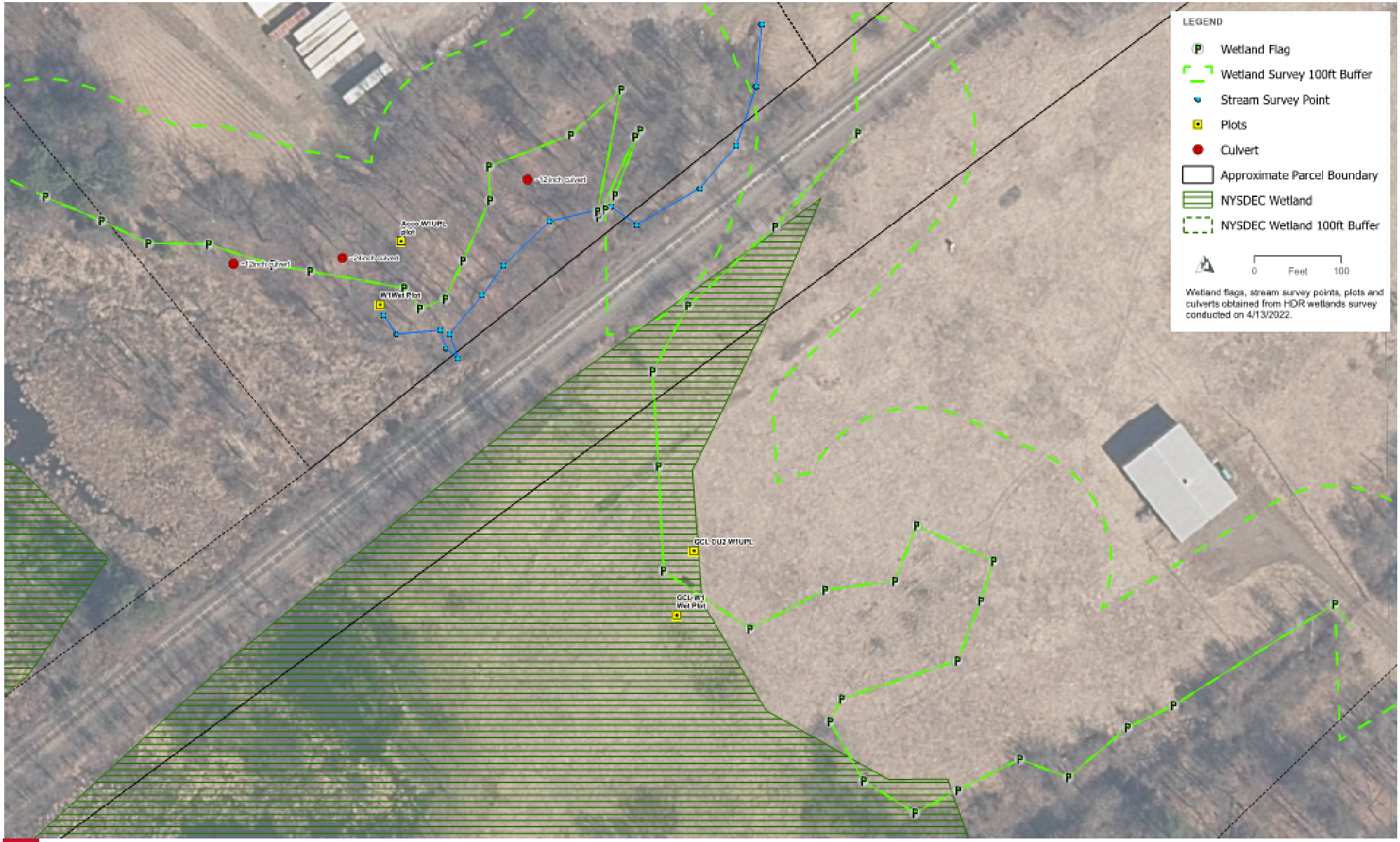


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	Yes

Article 24 Permit Equivalency mapping of the proposed sampling area with the HDR OBG JV-delineated wetland boundary and 100-foot adjacent area indicated
(Permit Equivalency Figures 1 & 2)

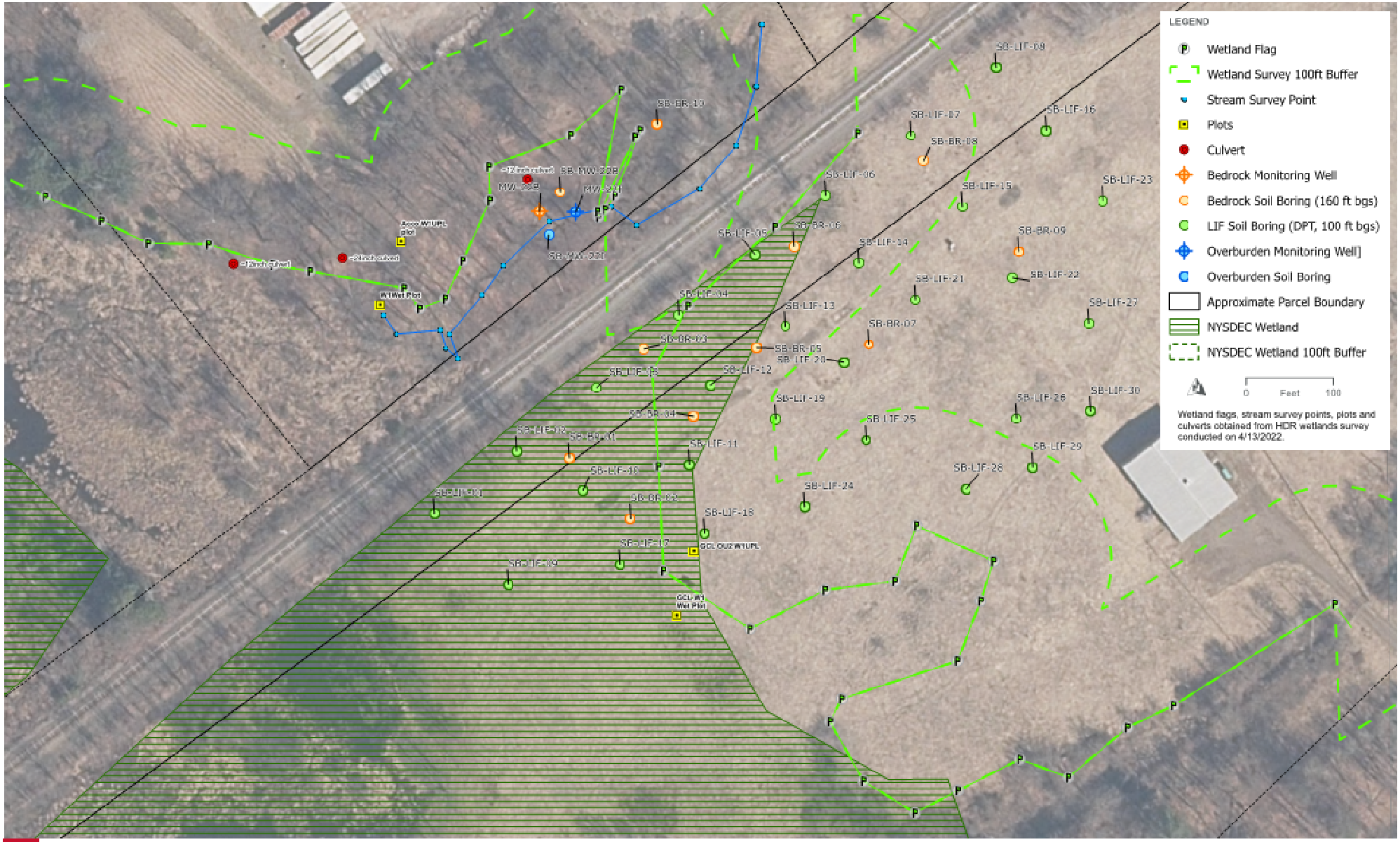


ARTICLE 24 - PERMIT EQUIVALENCY - WETLANDS

GCL TIE & TREAT

FIGURE 1

PRELIMINARY DESIGN INVESTIGATION



ARTICLE 24 - PERMIT EQUIVALENCY - WETLANDS WITH PROPOSED PDI LOCATIONS

GCL TIE & TREAT

FIGURE 2

PRELIMINARY DESIGN INVESTIGATION

Narrative of the proposed boring/sampling plan

GCL Tie and Treating, Inc. Superfund Site
Village of Sidney, Delaware County, New York
Superfund Site Identification Number: **NYD981566417**
Operable Unit(s): 03
https://www.epa.gov/superfund/gcl-tie
Ashley Similo
Remedial Project Manager
(212) 637-4263
similo.ashley@epa.gov

DEC Site No. **413011**

Pre-Design Investigation Drilling narrative procedures:

HDR has been contracted by the United States Army Corps of Engineers, Kansas City District (USACE) to perform a Preliminary Design Investigation (PDI) at the GCL Tie and Treating Superfund Site (the Site), Village of Sidney, Delaware County, New York. Historically, creosote, which contains polycyclic aromatic hydrocarbons (PAHs), is known to have been released in large quantities, and contaminated the soils over a large area of the Site. **Figure 1** shows the site location. **Figure 2** shows the current site configuration with mapped Federal and State Regulated Wetlands. HDR is completing the PDI at the Site to fill data gaps required for preparation of the Remedial Design (RD).

The PDI will include the drilling and installation of two (2) monitoring wells up to 160 feet below ground surface, thirty (30) direct push soil borings up to 100 feet below ground surface and 12 conventional drilled borings up to approximately 160 feet below ground surface. These locations are shown on **Figure 3**. Approximately 10 direct push boring locations and 5 conventional drilled locations fall within the mapped wetlands. Several more locations fall within the 100-foot buffer. It is anticipated that the direct push borings will be completed with a track mounted Geoprobe direct push rig and the conventional borings and monitoring wells will be completed with a track mounted or rubber tire mounted rotary drill rig. Soft ground will be protected with temporary ground protection mats. All investigation derived waste (IDW) will be containerized for disposal off site by an IDW subcontractor. Each direct push and conventional boring will be sealed upon completion by filling the borings with cement-bentonite grout. There will be no fill or permanent structures/monitoring wells above ground surface within the mapped wetlands and buffer.

HDR OBG a joint venture

Wetland delineation data sheets

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GCL Tie and Treating OU3 City/County: Sidney, Delaware County Sampling Date: 4/13/2022

Applicant/Owner: United States Environmental Protection Agency State: NY Sampling Point: WET 1

Investigator(s): S. Jones, N. Ositt Section, Township, Range: Town of Sidney

Landform (hillside, terrace, etc.): plateau Local relief (concave, convex, none): Flat to gentle slope Slope %: 0-3

Subregion (LRR or MLRA): LRR R Lat: 42.30593 Long: -75.1411936 Datum: WSG-84

Soil Map Unit Name: Urban Land NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No X	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: GCL OU3 W1

Remarks: (Explain alternative procedures here or in a separate report.)
Soils on site were historically manipulated. Purportedly, soil was removed, heat treated/burned and replaced, evidence of burn scaring of soil components was observed. Indications of antrhopogenic soil disturbance included tire ruts, mowing, grading, and drilling have occurred on this previous industrial site.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 3
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Google earth aerial photos show dark shaded areas of inundation/saturation.

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: WET 1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Juncus effusus*	70	Yes	OBL
2. *Scirpus cyperinus*	15	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	85 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	85	x 1 =	85
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		85 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: WET 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					Loamy/Clayey	Silt loam
10-20	10YR 2/2	100					Sandy	Coarse sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- _X_ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- _X_ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: gravel/rock

Depth (inches): 20

Hydric Soil Present? **Yes** _X_ **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx) Soils have been previously and historically disturbed from manufacturing and spill clean-up activities.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: GCL Tie and Treating OU3 City/County: Sidney, Delaware County Sampling Date: 4/13/2022

Applicant/Owner: United States Environmental Protection Agency State: NY Sampling Point: UPL1

Investigator(s): S. Jones, N. Ositt Section, Township, Range: Town of Sidney

Landform (hillside, terrace, etc.): plateau Local relief (concave, convex, none): Flat to gentle slope Slope %: 0-3

Subregion (LRR or MLRA): LRR R Lat: 42.300725 Long: -75.412121 Datum: WSG-84

Soil Map Unit Name: Urban Land NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Soils on site were historically manipulated. Purportedly, soil was removed, heat treated/burned and replaced, evidence of burn scaring of soil components was observed. Indications of antrhopogenic soil disturbance included tire ruts, mowing, grading, and drilling have occurred on this porevious industrial site.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Google earth aerial photos show dark shaded areas of inundation/saturation.

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: UPL1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Daucus carota*	10	Yes	UPL
2. *Solidago canadensis*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	20 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	10	x 5 =	50
Column Totals:	20 (A)		90 (B)

Prevalence Index = B/A = 4.50

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UPL1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-22	10YR 3/3	100					Loamy/Clayey	Silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: gravel/rock

Depth (inches): 22

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx) Soils have been previously and historically disturbed from manufacturing and spill clean-up activities.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ACCO Property City/County: Sidney, Delaware County Sampling Date: 4/13/2022

Applicant/Owner: United States Environmental Protection Agency State: NY Sampling Point: WET1

Investigator(s): S. Jones, N. Ositt Section, Township, Range: Town of Sidney

Landform (hillside, terrace, etc.): bottom of hillslope Local relief (concave, convex, none): gentle to moderate slopes Slope %: 0-8

Subregion (LRR or MLRA): LRR R Lat: 42.301426 Long: -75.412993 Datum: WGS 1984

Soil Map Unit Name: Unadilla Silt Loam NWI classification: PSS1E/PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ACCO WET 1

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- x Water Marks (B1)
- x Sediment Deposits (B2)
- x Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- x Water-Stained Leaves (B9)
- x Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes x	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes x	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Google earth aerial photos show dark shaded areas of inundation/saturation.

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: WET1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50	Yes	FAC
2. *Betula alleghaniensis*	10	No	FAC
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Acer rubrum*	10	Yes	FAC
2. *Cornus amomum*	20	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Osmunda claytoniana*	25	Yes	FAC
2. *Symplocarpus foetidus*	10	No	OBL
3.			
4. sphagnums spp	90	Yes	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	125	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	20	x 2 =	40
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	215 (A)		425 (B)

Prevalence Index = B/A = 1.98

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: WET1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100					Peat	Organic matter
2-9	10YR 2/1	100					Muck	silt loam
9-19	10YR 4/1	85	10YR 5/8	15	RM	M	Mucky Sand	fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- X Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ____

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx) Soils have been previously and historically disturbed from manufacturing and spill clean-up activities.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ACCO Property City/County: Sidney, Delaware County Sampling Date: 4/13/2022

Applicant/Owner: United States Environmental Protection Agency State: NY Sampling Point: UPL1

Investigator(s): S. Jones, N. Ositt Section, Township, Range: Town of Sidney

Landform (hillside, terrace, etc.): slight hillslope Local relief (concave, convex, none): gentle to moderate slopes Slope %: 0-8

Subregion (LRR or MLRA): LRR R Lat: 42.301602 Long: -75.412863 Datum: WGS 1984

Soil Map Unit Name: Unadilla Silt Loam NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Google earth aerial photos show dark shaded areas of inundation/saturation.

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: UPL1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Prunus serotina*	45	Yes	FACU
2. *Quercus alba*	15	Yes	FACU
3. *Acer rubrum*	15	Yes	FAC
4.			
5.			
6.			
7.			
	75	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Amelanchier arborea*	30	Yes	FACU
2. *Hamamelis virginiana*	25	Yes	FACU
3. *Acer rubrum*	5	No	FAC
4.			
5.			
6.			
7.			
	60	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Pteridium aquilinum*	20	Yes	FACU
2. *Potentilla simplex*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30	=Total Cover	
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 14.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	145	x 4 =	580
UPL species	0	x 5 =	0
Column Totals:	165 (A)		640 (B)
Prevalence Index = B/A =			3.88

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UPL1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-22	10YR 3/3	100					Loamy/Clayey	Silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: gravel/rock

Depth (inches): 22

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

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Photographs



Photo looking southeast from just south of the railroad tracks.



Photo looking across the field.



Photo of seep at southern edge of the open field.



Looking northeast from woods near seep.

APPENDIX B

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/22 Well ID: MW-01D

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	(Stick up)	Multilevel Well*
Well lock\security type:	None		
Surface casing material:	Steel		
Well casing material:	Steel		
Surface Casing diameter:	8.0	*inches*	
Well Diameter:	4.0	*inches*	
Well Depth (as measured):	71.90	fttoc	
Depth to water:	9.95	*ftbtoc*	
Depth to Product	(ons) ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	NA Yes	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	NA Yes	No
Missing Bolts	NA Yes	No
Missing Well Cap	NA Yes	No
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	NA Yes	No

Comments

Removed tubing from well. Well has transducers

Inspected by: MP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/22 Well ID: MW-15015 DMS

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	(Stick up)	Multilevel Well*
Well lock\security type:	Key lock		
Surface casing material:	Steel		
Well casing material:	Steel		
Surface Casing diameter:	~~4.0~~ 8.0	inches	
Well Diameter:	4.0	inches	
Well Depth (as measured):	16.50	fttoc	
Depth to water:	6.98	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	NA Yes	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	(Yes)	(No) DMS
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	NA Yes	No
Missing Bolts	NA Yes	No
Missing Well Cap	NA Yes	No
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	NA Yes	No

Comments

Removed tubing from well.

Inspected by: DMS/MTP/VT

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-2IB

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	8	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	146.30	fttoc
Depth to water:	78.60	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	(No)
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2012 Well ID: MW-[redacted] 21I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	[redacted] bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	[redacted] 8	inches
Well Diameter:	2	inches
Well Depth (as measured):	115	fttoc
Depth to water:	27.09	ftbtoc
Depth to Product	ND	ft toc
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 6.0 ppm

Do readings indicate unsafe conditions exist?	Yes	No

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Well Vault filled with Bentonite

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-08DI

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	Stick up	Multilevel Well*
Well lock\security type:	Bolts		
Surface casing material:	steel		
Well casing material:	PVC		
Surface Casing diameter:	8	*inches*	
Well Diameter:	2	*inches*	
Well Depth (as measured):	108	fttoc	
Depth to water:	28.71	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist?	Yes	(No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	(Yes)	No
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: EW-4I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	Steal	
Well casing material:	Steal	
Surface Casing diameter:	7	*inches*
Well Diameter:	7	*inches*
Well Depth (as measured):	90.25	fttoc
Depth to water:	26.00	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes No

Well Condition

Is the concrete pad in good condition?	Yes	No	NA
Is the well surface casing in good condition?	(Yes)	No	
Is the surface casing vertical?	Yes	(No)	
Is there an internal well seal?	Yes	(No)	
Has there been physical damage to the well?	Yes	(No)	
Does sounding depth match completed depth?	Yes	(No)	
Is measuring point marked?	Yes	(No)	
Is the well clearly labeled?	Yes	(No)	
Flush mount - Is it secure from runoff?	Yes	No	NA
Missing Bolts	Yes	(No)	
Missing Well Cap	(Yes)	No	
Damaged/Missing J-Plug	(Yes)	No	NA
Missing Tabs	(Yes)	No	

Comments

no outside well casing

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: EW-4B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	(Stick up)	Multilevel Well*
Well lock\security type:	Bolts		
Surface casing material:	Steal		
Well casing material:	Steal		
Surface Casing diameter:	7	inches	
Well Diameter:	~~2~~ 7	inches	
Well Depth (as measured):	could not measure	fttoc	
Depth to water:	could not measure	ftbtoc	
Depth to Product	Could not measure	ft toc	
Product Thickness	Could not measure	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No	NA
Is the well surface casing in good condition?	(Yes)	No	
Is the surface casing vertical?	(Yes)	No	
Is there an internal well seal?	Yes	(No)	
Has there been physical damage to the well?	Yes	(No)	
Does sounding depth match completed depth?	Yes	(No)	
Is measuring point marked?	Yes	(No)	
Is the well clearly labeled?	Yes	(No)	
Flush mount - Is it secure from runoff?	Yes	No	NA
Missing Bolts	(Yes)	No	
Missing Well Cap	Yes	(No)	
Damaged/Missing J-Plug	(Yes)	No	
Missing Tabs	Yes	(No)	

Comments

Unsampleable. Metal Plate Blocking Steel Meter from getting past 2 10'

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-07I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	keylock	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	~~[illegible]~~ 49	fttoc
Depth to water:	24.30	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

transducer in well

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-07S

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Keylock	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	19.80	fttoc
Depth to water:	9.49	*ftbtoc*
Depth to Product		*ft toc*
Product Thickness		ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No NA
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

transducer in well

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-07D

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Kwylock	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	Not measured	fttoc
Depth to water:	26.54	*ftbtoc*
Depth to Product	Not Measured	*ft toc*
Product Thickness	Not Measured	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	Yes	(No)
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	(No)
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

Creosote globules found on bailer + string

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-07B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Keylock	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	6	inches
Well Diameter:	2	inches
Well Depth (as measured):	Not Measured	fttoc
Depth to water:	25.33	ftbtoc
Depth to Product	2136.65	ft toc
Product Thickness	16.25 in (1.35	ft)

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 27.8 ppm

Do readings indicate unsafe conditions exist? (Yes) (No)

Well Condition

Is the concrete pad in good condition?	Yes	No N/A
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	No N/A
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	No N/A
Missing Bolts	Yes	No N/A
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No N/A

Comments

Bailed out all the product, Product was collected for Sample.

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-11B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	none	
Surface casing material:	steel	
Well casing material:	PVC	
Surface Casing diameter:	18	inches
Well Diameter:	2	inches
Well Depth (as measured):	~~170.5~~ 164.2	fttoc
Depth to water:	33.99	ftbtoc
Depth to Product	ND	ft toc
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	~~(No)~~
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	(Yes)	No
Missing Tabs	Yes	(No)

Comments

Surface casing B vertical → 2 extra surface casing not vertical

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-11I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	12	inches
Well Diameter:	4	inches
Well Depth (as measured):	104.1	fttoc
Depth to water:	30.14	ftbtoc
Depth to Product	ND	ft toc
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	(Yes)	No
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	(Yes)	No

Comments

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: PZ-03S

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	None	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	18"	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	14.36	fttoc
Depth to water:	6.27	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	N/A Yes	No
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Inspected by: DMS, MTP, VT

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-12B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	(Flush Mount)	Stick up	Multilevel Well*
Well lock\security type:	none		
Surface casing material:	steel		
Well casing material:	PVC		
Surface Casing diameter:	18	*inches*	
Well Diameter:	2	*inches*	
Well Depth (as measured):	130.1	fttoc	
Depth to water:	22.60	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	(Yes)	No
Missing Tabs	Yes	No NA

Comments

Paint odor, ND Product

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/10/2022 Well ID: MW-12 I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	(Flush Mount)	Stick up	Multilevel Well*
Well lock\security type:	None		
Surface casing material:	Steel		
Well casing material:	PVC		
Surface Casing diameter:	18	*inches*	
Well Diameter:	4	*inches*	
Well Depth (as measured):	54.15	fttoc	
Depth to water:	20.53	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	(Yes)	No
Missing Tabs	Yes	No NA

Comments

Inspected by: MTP VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-08B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	7	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	113.95	fttoc
Depth to water:	23.25	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	(No)
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Trenching

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-13I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	(Stick up)	Multilevel Well*
Well lock\security type:	Keylock		
Surface casing material:	Steel		
Well casing material:	PVC		
Surface Casing diameter:	6	*inches*	
Well Diameter:	2 1/2	*inches*	
Well Depth (as measured):	136.9	fttoc	
Depth to water:	32.81	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No NA
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(NO)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

transducer

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-13B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Keylock	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	6	*inches*
Well Diameter:	2 ½	*inches*
Well Depth (as measured):	170	fttoc
Depth to water:	33.49	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No NA
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

Transducer

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-10T

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	steal	
Well casing material:	PVC	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	67.50	fttoc
Depth to water:	26.10	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

transducer

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-10B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	(Flush Mount)	Stick up	Multilevel Well*
Well lock\security type:	Bolts		
Surface casing material:	Steel		
Well casing material:	Steel		
Surface Casing diameter:	16	*inches*	
Well Diameter:	6	*inches*	
Well Depth (as measured):	154	fttoc	
Depth to water:	26.38	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	(Yes)	No
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Hardwire

Inspected by: MTP, VT, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-14I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Keyed	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	6	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	118	fttoc
Depth to water:	35.03	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

transducer

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-4B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Keylock	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	8	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	19.20	fttoc
Depth to water:	35.38	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

transducer

Inspected by: MTP / VT / DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-15I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	8	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	123.57	fttoc
Depth to water:	33.8	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	(No)
Missing Bolts	(Yes)	No
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Transducer

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-15B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	8	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	190	fttoc
Depth to water:	33.93	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	(Yes)	(No)
Missing Bolts	(Yes)	No
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

transducer

Inspected by: MTP / VT / DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-03 3S

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	NM	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8	inches
Well Diameter:	4	inches
Well Depth (as measured):	20.3	fttoc
Depth to water:	12.44	ftbtoc
Depth to Product	Not measurable	ft toc
Product Thickness	Not Measurable	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No N/A
Is the well surface casing in good condition?	Yes	(No)
Is the surface casing vertical?	Yes	(No)
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	(Yes)	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	No N/A
Missing Bolts	Yes	No N/A
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	(Yes)	No
Missing Tabs	Yes	No N/A

Comments

Creosote globules
Stick up is new flushmount
Transducer

Inspected by: MTP/ VT/ DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-03B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	keylock	
Surface casing material:	steel	
Well casing material:	none	
Surface Casing diameter:	6	*inches*
Well Diameter:	none	*inches*
Well Depth (as measured):	132.7	fttoc
Depth to water:	72.73	*ftbtoc*
Depth to Product	132.66	*ft toc*
Product Thickness	0.16	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No N/A
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	Yes	(No)
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No N/A
Missing Bolts	Yes	No N/A
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	(Yes)	No
Missing Tabs	Yes	(No)

Comments

measuring product transducer

Inspected by: MTP / VT / DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-03I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick-up) Multilevel Well*

Well lock\security type:	NVN	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	59.60	fttoc
Depth to water:	17.38	*ftbtoc*
Depth to Product	NDI	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No (NA)
Is the well surface casing in good condition?	Yes	(No)
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	Yes	(No)
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	(No) NA
Missing Bolts	Yes	No (NA)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	(Yes)	No
Missing Tabs	Yes	No NA

Comments

Stick up is no flush mount
Surface casing bulging
transducer

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: GW-1B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	7	inches
Well Diameter:	3	inches
Well Depth (as measured):	Could not measure	fttoc
Depth to water:	Could not Measure	ftbtoc
Depth to Product	Could not measure	ft toc
Product Thickness	Could not measure	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No NA
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	Yes	(No)
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	No NA
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	(Yes)	No
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	No
Missing Tabs	Yes	(No)

Comments

Unsampleable, Metal Plate possibly Anything Goes getting Deeper than ~10.

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: Well ID: CW-1E

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount Stick-up Multilevel Well*

Well lock\security type:	Dolls	
Surface casing material:	Steel	
Well casing material:	~~PVC~~ N/A	
Surface Casing diameter:	7	inches
Well Diameter:	2 N/A	inches
Well Depth (as measured):	53.30	fttoc
Depth to water:	19.73	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No N/A
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	Yes	(No)
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No N/A
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	(Yes)	No
Missing Tabs	Yes	(No)

Comments

Transducer

Inspected by: MTP / VT / DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-19B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	99.5	fttoc
Depth to water:	15.70	*ftbtoc*
Depth to Product	NO	*ft toc*
Product Thickness	NO	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/16/2018 Well ID: MW-20B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	bolts	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	103	fttoc
Depth to water:	18.69	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Well ID labeled MW-20D
Depth of MW-20B matches with this well

Inspected by: _____

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: PZ-02S

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Key lock	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	4	inches
Well Diameter:	2	inches
Well Depth (as measured):	16.76	fttoc
Depth to water:	9.17	ftbtoc
Depth to Product	~~ND~~	ft toc not measurable
Product Thickness	~~ND~~	ft not measurable

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No N/A
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No N/A
Missing Bolts	Yes	No N/A
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No N/A

Comments

Odor + creosote globules

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: PZ-02I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Key lock	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	4	inches
Well Diameter:	2	inches
Well Depth (as measured):	51.3	fttoc
Depth to water:	16.8	ftbtoc
Depth to Product	51.12	ft toc
Product Thickness	0.18	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	No NA
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	No NA
Missing Bolts	Yes	No NA
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No NA

Comments

product

Inspected by: MTP/DMS/LT

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-17S

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	6	inches
Well Diameter:	1	inches
Well Depth (as measured):	17.70	fttoc
Depth to water:	8.74	ftbtoc
Depth to Product	ND	ft toc
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	(No)
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	Yes	(No)
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	(No)
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Odor well pad is compromised

11/17/2022 - checked well with weighted string, globules present (MTP)

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-17I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	Bolts	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	5	*inches*
Well Diameter:	1	*inches*
Well Depth (as measured):	59.1	fttoc
Depth to water:	16.12	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	(No)
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Odor

11/17/2022 - should well with weighted string, Hydrolab pump.

Inspected by: MTP/VT/DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/11/2022 Well ID: MW-17B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) (Flush Mount) Stick up Multilevel Well*

Well lock\security type:	bolts	
Surface casing material:	steel	
Well casing material:	steel	
Surface Casing diameter:	8	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	102.7	fttoc
Depth to water:	14.4	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	Yes	No N/A
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	Yes	(No)
Missing Bolts	(Yes)	No
Missing Well Cap	(Yes)	No
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	(Yes)	No

Comments

Labeled MW-17D but depths similar
no cap
slight odor

Inspected by: MTP / VT / DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: EW-2B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	N/A	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	7	inches
Well Diameter:	7	inches
Well Depth (as measured):	could not measure	fttoc
Depth to water:	Could not measure	ftbtoc
Depth to Product	Could not measure	ft toc
Product Thickness	could not measure	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	Yes	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth? N/A	Yes	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff? N/A	Yes	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug N/A	Yes	No
Missing Tabs	Yes	(No)

Comments

Cannot be measured, blockage in well - can't reach water table

Inspected by: SMW MTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: EW-2I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount ~~Stick up~~ Multilevel Well*

Well lock\security type:	N/A	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	7	*inches*
Well Diameter:	7	*inches*
Well Depth (as measured):	58.70	fttoc
Depth to water:	18.48	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

	Yes	No
Do readings indicate unsafe conditions exist?	Yes	No

Well Condition

Is the concrete pad in good condition?	N/A	Yes	No
Is the well surface casing in good condition?		(Yes)	No
Is the surface casing vertical?		(Yes)	No
Is there an internal well seal? N/A		Yes	No
Has there been physical damage to the well?		Yes	(No)
Does sounding depth match completed depth?		(Yes)	No
Is measuring point marked?		Yes	(No)
Is the well clearly labeled?		Yes	(No)
Flush mount - Is it secure from runoff? N/A		Yes	No
Missing Bolts		(Yes)	No
Missing Well Cap		Yes	(No)
Damaged/Missing J-Plug N/A		Yes	No
Missing Tabs		Yes	(No)

Comments

Inspected by: SMW MTP ~~KRS~~ DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: EW-3I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	N/A	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	7	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	60	fttoc
Depth to water:	15.91	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	~~Yes~~	~~No~~
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal? N/A	~~Yes~~	~~No~~
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff? N/A	~~Yes~~	~~No~~
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug N/A	~~Yes~~	~~No~~
Missing Tabs	Yes	(No)

Comments

Well casing bent at ~ 10 ft

Inspected by: SMW MTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: MW-125

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	(Stick up)	Multilevel Well*
Well lock\security type:	key lock		
Surface casing material:	Steel		
Well casing material:	Steel		
Surface Casing diameter:	8	*inches*	
Well Diameter:	4	*inches*	
Well Depth (as measured):	22	fttoc	
Depth to water:	8.37	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	~~Yes~~	~~No~~
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff? N/A	Yes	No
Missing Bolts N/A	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs N/A	~~Yes~~	~~No~~

Comments

Inspected by: JMW MTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: MW-02I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	(Stick up)	Multilevel Well*
Well lock\security type:	~~Stick~~ Key lock		
Surface casing material:	Steel		
Well casing material:	Steel		
Surface Casing diameter:	8	inches	
Well Diameter:	~~8~~ 4	inches	
Well Depth (as measured):	56.9	fttoc	
Depth to water:	8.20	*ftbtoc*	
Depth to Product	ND	*ft toc*	
Product Thickness	ND	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	Yes	(No)
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	~~Yes~~	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff? NA	~~Yes~~	~~No~~
Missing Bolts N/A	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs N/A	~~Yes~~	~~No~~

Comments

Inspected by: SMW, MJP, DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: PZ-01S

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Key lock	
Surface casing material:	steel	
Well casing material:	PVC	
Surface Casing diameter:	4.25	inches
Well Diameter:	2	inches
Well Depth (as measured):	16.8	fttoc
Depth to water:	5.96	ftbtoc
Depth to Product	ND	ft toc
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	~~Yes~~	~~No~~
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	Yes	(No)
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	(No)
Flush mount - Is it secure from runoff? N/A	~~Yes~~	~~No~~
Missing Bolts N/A	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug N/A	~~Yes~~	~~No~~
Missing Tabs N/A	~~Yes~~	~~No~~

17.1

Comments

Inspected by: SMW MTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: PZ-01I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Key lock	
Surface casing material:	Steel	
Well casing material:	PVC	
Surface Casing diameter:	4	*inches*
Well Diameter:	2	*inches*
Well Depth (as measured):	51.5	fttoc
Depth to water:	7.58	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	~~Yes~~	~~No~~
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	Yes	(No)
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	~~Yes~~	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff? N/A	~~Yes~~	~~No~~
Missing Bolts N/A	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug N/A	~~Yes~~	~~No~~
Missing Tabs N/A	~~Yes~~	~~No~~

52.1

Comments

faint product odor

Inspected by: SMW MTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: Well ID: MW-05S

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Key lock	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8.25	inches
Well Diameter:	4	inches
Well Depth (as measured):	17.2	fttoc
Depth to water:	6.45	ftbtoc
Depth to Product	ND	ft toc
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	~~Yes~~	~~No~~
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	~~Yes~~	~~No~~
Missing Bolts	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	~~Yes~~	~~No~~

16.5

Comments

Paint odor of product detected

Inspected by: SMW MTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/22 Well ID: MW-05I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Key lock	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8.25	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	42.7	fttoc
Depth to water:	17.95	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff? N/A	~~Yes~~	~~No~~
Missing Bolts N/A	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs N/A	~~Yes~~	~~No~~

47.5

Comments

Inspected by: SMW WTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: Well ID: MW-05D

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	Key lock	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	8.25	*inches*
Well Diameter:	4	*inches*
Well Depth (as measured):	104.9	fttoc
Depth to water:	18.13	*ftbtoc*
Depth to Product	ND	*ft toc*
Product Thickness	ND	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	~~Yes~~	~~No~~
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	(Yes)	No
Is the well clearly labeled?	(Yes)	(No)
Flush mount - Is it secure from runoff? N/A	~~Yes~~	~~No~~
Missing Bolts N/A	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs N/A	~~Yes~~	~~No~~

107.1

Comments

Inspected by: SMW MTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/14/2022 Well ID: ~~EW-~~ EW-5I

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick up) Multilevel Well*

Well lock\security type:	None	
Surface casing material:	Steel	
Well casing material:	Steel	
Surface Casing diameter:	N/A	*inches*
Well Diameter:	6	*inches*
Well Depth (as measured):	55.4	fttoc
Depth to water:	17.90	*ftbtoc*
Depth to Product	NP	*ft toc*
Product Thickness	NP	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition? N/A	~~Yes~~	~~No~~
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal? N/A	~~Yes~~	~~No~~
Has there been physical damage to the well?	Yes	(No)
55.1 Does sounding depth match completed depth?	(Yes)	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff? N/A	~~Yes~~	~~No~~
Missing Bolts N/A	~~Yes~~	~~No~~
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug N/A	~~Yes~~	~~No~~
Missing Tabs N/A	~~Yes~~	~~No~~

Comments

Inspected by: SMW WTP DMS

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/12/2025 Well ID: MW-33B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	Flush Mount	(Stick up)	Multilevel Well*
Well lock\security type:	Lock		
Surface casing material:	Steel		
Well casing material:	Stainless Steel		
Surface Casing diameter:	6"	inches	
Well Diameter:	2"	inches	
Well Depth (as measured):	133.3	fttoc	
Depth to water:	17.96'	*ftbtoc*	
Depth to Product	N/A	*ft toc*	
Product Thickness	N/A	ft	

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 *ppm*

Do readings indicate unsafe conditions exist? (Yes) (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	No N/A
Missing Bolts	Yes	No N/A
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No N/A

Comments

Area Muddy

Inspected by: MTP/MJK

EPA Region 2 Superfund Well Assessment Checklist

Date: 11/12/2023 Well ID: MW-22T

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one) Flush Mount (Stick-up) Multilevel Well*

Well lock\security type:	Lock	
Surface casing material:	Steel	
Well casing material:	Stainless Steel	
Surface Casing diameter:	4"	inches
Well Diameter:	2"	inches
Well Depth (as measured):	53.30	fttoc
Depth to water:	16.19	ftbtoc
Depth to Product	Not Measured	ft toc
Product Thickness	Not Measured	ft

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Do readings indicate unsafe conditions exist? Yes (No)

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical?	(Yes)	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	Yes	(No)
Flush mount - Is it secure from runoff?	Yes	No N/A
Missing Bolts	Yes	No N/A
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	No N/A

Comments

Product Globules found present IN MW well

Inspected by: MTP / MTK

EPA Region 2 Superfund Well Assessment Checklist

Date: 1/12/23 Well ID: ~~MW-18D~~ MW-18B

Facility Information

Site Name:	GCL Tie and Treating EPA Superfund
Site Address:	140 Delaware Ave, Sidney, NY
Site County:	Delaware
Site State:	New York
EPA Site ID Number:	NYD981566417
Site Owner:	None
EPA Project Manager:	Ashley Similo

Well Construction Details

Type of well (Circle one)	(Flush Mount)	Stick up	Multilevel Well*
Well lock\security type:	Bolts		
Surface casing material:	Steel		
Well casing material:	Steel		
Surface Casing diameter:	8	*inches*	
Well Diameter:	4	*inches*	
Well Depth (as measured):	103.75	fttoc	
Depth to water:	8.61	*ftbtoc*	
Depth to Product	Product NOT Measurable		
Product Thickness	Product NOT Measurable		

* If multilevel well please see attached worksheet.

Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 *ppm*

Do readings indicate unsafe conditions exist?	Yes	No

Well Condition

Is the concrete pad in good condition?	(Yes)	No
Is the well surface casing in good condition?	(Yes)	No
Is the surface casing vertical? – N/A	Yes	No
Is there an internal well seal?	(Yes)	No
Has there been physical damage to the well?	Yes	(No)
Does sounding depth match completed depth?	Yes	(No)
Is measuring point marked?	Yes	(No)
Is the well clearly labeled?	(Yes)	No
Flush mount - Is it secure from runoff?	(Yes)	No
Missing Bolts	Yes	(No)
Missing Well Cap	Yes	(No)
Damaged/Missing J-Plug	Yes	(No)
Missing Tabs	Yes	(No)

Comments

Labeled as 18-D
Product globules found present in well

Inspected by: M.T.P, M.R

APPENDIX C

S2C2 LLC

Direct-Sensing • Direct-Push • 3D Visualization

High-Resolution Subsurface Characterization Using the Combination Optical Image Profiler with Hydraulic Profiling Tool (OiHPT)

GCL Tie and Treating Superfund Site
Sydney, New York

October 12, 2022

PREPARED FOR

Parratt-Wolff, Inc.
East Syracuse, New York

PREPARED BY

S2C2
47 East Main Street
Flemington, New Jersey 08822
www.s2c2.us

TABLE OF CONTENTS

Introduction ……. 1
Equipment Description…… 1
OiHPT Quality Assurance and Quality Control …… 2
Summary of Field Investigation ……. 3
Direct Sensing Log Generation ……. 3
Discussion…..……. ……..…….. 4

Tables

Table 1: Direct-Sensing QA/QC Summary Table

Appendices

Appendix A: OiHPT-G Logs

Introduction/Objectives

Parratt-Wolff, Inc. contracted S2C2 to conduct a High-Resolution Site Characterization (HRSC) field program at the GCL Tie and Treating Superfund Site (Site) located near the town of Sydney, New York. The survey involved delineating the vertical and horizontal extent of creosote impacted soil using Geoprobe®'s combination Optical Image Profiler with Green laser diode/Hydraulic Profiling Tool (OiHPT-G). The field work was conducted from August 1st to September 16th, 2022.

Equipment Description

The OiHPT-G coupled with an EC sensor provides continuous stratigraphic information of the soil as well as a semi-quantitative indicator of the presence of Non-Aqueous Phase Liquids (NAPL). The OiHPT-G detects induced fluorescence of PAH contaminants found in creosote, coal tars, heavy crude oils, lubricating oils and bunker fuels in saturated and unsaturated media. The OiHPT-G probe consists of a downhole complementary metal oxide semiconductor (CMOS) camera focused at a sapphire window that acts as a rugged interface between the probe cavity and subsurface matrix. A green laser diode positioned above the camera directs green light at a 520 nanometer (nm) wavelength through the sapphire window and at the subsurface, causing PAH components to fluoresce if present. An optical filter on the camera excludes any reflected green light from the light source allowing orange to red wavelength fluorescence to pass through to the camera which captures an image of the florescence. The captured image is then analyzed by the OIP software which utilizes a 2-stage digital filter to determine if the fluorescent light falls in the correct color (hue) range above a specified brightness (value) level to be defined as fluorescence for the product under investigation. Coal tars and creosote typically fluoresce in the red-orange wavelength range. Using this algorithm, the software determines the number of pixels in the image that indicate fluorescence. The reported value is a percent area of the captured image that displays fluorescence (%FA) with a resolution of 0.05 feet (i.e., 20 readings per foot). An infrared LED is positioned below the camera and is also directed at the subsurface through the window. Probe advancement can be stopped at any time and the light source can be changed to allow for an image capture and the visual analysis of soil conditions.

S2C2 used a OH6720 OiHPT-G probe, FI6000 field instrument, K6300 HPT flow module, OP6100 OIP instrument interface and a field laptop with Direct Image Acquisition software to log all OiHPT-G data. Output from the OiHPT-G probe was displayed on the field laptop in real-time, displaying conductivity, push-rate, %FA, optical power, frame rate and HPT pressure and flow data. These data were viewed continuously during each OiHPT-G logging run and synchronized to a secure cloud-based file storage system.

The HPT system coupled to the OiHPT-G uses a sensitive downhole transducer to measure the pressure response of the sub-surface to a constant, monitored injection of clean water. As the probe is advanced at 20 millimeters per second (mm/s), water is injected through a

stainless-steel screen on the side of the probe at a flow rate of approximately 200-300 mL/min. Injection pressure is monitored and plotted with depth along with the injection flow rate. A low pressure is indicative of higher subsurface permeability while high pressure is indicative of lower permeability. Once the HPT probe has been advanced below the water table, dissipation testing can be performed to estimate the static water level and provide an estimate of hydraulic conductivity (Est. K). The operator will pause advancement of the probe and shut-off the flow of water to the HPT probe. The HPT pressure will then dissipate and once it has stabilized, the operator will return water flow to the HPT and continue advancement of the probe. Upon completion of the log, the operator can utilize equations integrated in the Geoprobe® Direct Image Viewer software to calculate static water level, depth of water table, and Est K. in feet per day (ft/day). To refine the precision of the calculations, multiple dissipation tests can be run in the same log.

It should be noted that the Est. K values obtained from the HPT are calculated using an equation derived by Geoprobe Systems based on a relationship between co-located HPT borings and slug test data. In addition, water table and static water level data calculated from dissipation test results can only provide an estimate of the water table and static water level conditions at the location of the dissipation tests at the time of the borehole advancement. Water table depth calculations assume that the water column is hydrostatic. Any use of the static water elevation data collected from the HPT tool to determine groundwater flow should only be conducted after incorporating a rigorous baseline and continuous monitoring of water levels that can evaluate changes in atmospheric pressure and resulting groundwater elevations during the HPT evaluation program. These data must be carefully considered to determine if the variations of the data would influence any estimate of groundwater flow. Based on the level of complexity of interpreting and incorporating the variability of the above-mentioned factors into HPT static water level data sets, it is often impractical to use the static water level data for interpreting groundwater flow in lieu of seasonal water elevation measurements made from properly placed and screened permanent groundwater monitoring wells.

The EC capabilities on the OiHPT-G consists of an electric dipole near the lead-end of the probe. The dipole sends a current into the soil formation which is measured along with the resulting voltage. The conductivity is a ratio of current to voltage times a constant and is read in milli-Siemens per meter (mS/m). Because fine grain soils have more surface area through which to conduct electricity, EC is effectively a measurement of the *predominant* soil grain-size and can be used to identify lithologic changes. It is important to note that EC reads the grain-size which is present at the greatest percentage. In general, coarse-grained soils such as gravel and coarse sands have the lowest values (typically 0-20 mS/m) and clays have the greatest values (typically greater than 80 mS/m).

OiHPT Quality Assurance and Quality Control

S2C2 follows a strict quality assurance/quality control (QA/QC) program following Geoprobe®'s OIP Standard Operating Procedure (SOP) prepared July 2018. Accordingly,

S2C2 performs an optical test before and after each OiHPT location. The optical test is an important quality control test in that it tests the proper operation of the camera and light sources. A visual target test is conducted to check focus of the internal camera. A black box test is used to verify that there are no contaminants on the inside of the OIP window which could cause false positive readings. In addition, known fluorescing materials are also tested and include motor oil and diesel fuel. These materials test the functionality of the light source and the camera detection. For these tests, S2C2 places a known fluorescent NAPL contained in a cuvette over the sapphire window and captures the fluorescence. Figure 1 presents the results of all fluorescence response tests for the project. All response tests were above the threshold recommended by Geoprobe®. Please note, the optical test recommended values are not pass-fail, and it is up to the operator to determine if the OiHPT-G probe is working properly.

To check the EC dipole, an EC dipole tester configured with high and low EC materials on either end is applied across the EC dipole and the isolated steel body of the probe. If the EC response is within +/- 5% of the target value, the EC test is passed. If either the high or low EC test fails, corrective action (typically opening the probe and reconnecting the EC wires) must be taken.

S2C2 follows Geoprobe®'s HPT SOP Technical Bulletin No. MK 3137, prepared January 2015 for the operation of the HPT. Due to the shallow refusals encountered at this site and since the boreholes were not advancing into saturated soil, the operator elected to bypass HPT pressure tests. The HPT pressure tests provide an average atmospheric pressure value which is used to calculate the estimated depth to water and estimated hydraulic conductivity (k). Table 1 summarizes QA/QC data and any anomalies for the field investigation.

Summary of Field Investigation

The OiHPT borings were advanced to assess the horizontal and vertical extent of creosote related NAPL as well as the hydraulic properties of the subsurface. All borings were advanced to refusal. Refusal was determined when the probe advancement slowed to less than one foot per minute (ft/min) over an interval of a few inches while hammering. Refusal depths ranged from 41.4 to 83.85 ft below ground surface. At a number of locations following initial refusal of the OiHPT probe, an attempt was made to advance casing past dense till layers so that the OiHPT probe could be advanced further. In most cases, drilling conditions did not allow for further advancement of the OiHPT probe. Table 1 summarizes location, date and refusal depth information.

Direct Sensing Log Generation

OiHPT-G direct-sensing logs are provided in Appendix A. Each OiHPT-G log has the following three graphs of data displayed with depth:

- EC is on the left and is displayed in mS/m. Coarse-grained materials generally have lower EC values while higher values indicate finer-grained materials. A secondary series on this graph plots estimated hydraulic conductivity (Est. K) in ft/day.

- The next graph is the rate of penetration in ft/min.

- The next graph is the HPT downhole transducer pressure maximum in psi. An increase in HPT pressure indicates lower permeability while lower HPT pressures indicate higher permeability zones. A secondary series on this graph plots the absolute hydrostatic pressure line. Squares on the line indicate where dissipation tests were run and the absolute hydrostatic pressure at that depth. The first triangle indicates grade while the second displays where the absolute hydrostatic pressure intersects atmospheric pressure and thus the water table (assuming an unconfined system). Note that the absolute hydrostatic pressure may not be straight if confining layers or pumping/injections wells are located nearby.

- The third graph is the calculated percent fluorescence measured as a percent of the total area (%FA).

- The image files presented on the right side of the log include the post-test black box, IR visual target, and diesel response and UV fluorescence at a selected depth of interest.

In addition to the provided logs, Geoprobe®'s Direct Image Viewer Software can be used to evaluate all direct-sensing logs and is available at https://geoprobe.com/downloads/direct-image-viewer-32. A user tutorial can also be downloaded at http://geoprobe.com/di-viewer-technical-documents and provides users an overview of available features. This software package automatically opens and displays all types of Geoprobe® direct-image logs and can display single logs or multiple logs in either cross-section or overlay formats. The software also allows for printing and exporting of log graphics for use in many applications.

Discussion

The completed OiHPT-G borings provide a high-resolution data set providing both geologic and contaminant distribution information. The corrected HPT pressure data and Estimated K values provide detailed information on the geologic subsurface and the calculated fluorescence percent provides indications of creosote impacted soil. During the course of the investigation, elevated baseline fluorescence was documented and was attributed to the presence of material fluorescing within the probe cavity. We discussed the condition with Geoprobe, and they recommended filtering the raw data to eliminate the elevated background fluorescence response. The affected logs (See Table 1) were sent to Geoprobe and were filtered as follows:

The 520CFRS0.85KM002 is a custom image filter we used to reprocess your logs. The filter can be run during the log acquisition or logs already acquired can be reprocessed with the filter. Reprocessing the logs with the additional filter only reprocesses the saved images captured every 0.05 ft. Running or reprocessing the logs with the additional filter does not remove original data acquired during log but creates a new data graph.

The 520CFRS0.85KM002 custom image filter uses the same image filter parameters as the standard OIP-G image filter but with a higher brightness requirement. It is 85% of the brightness range, removing the low 15%. The filter is intended to reduce background/baseline response due to internal reflectance or changes in the OIP-G probe response in causing elevated black box responses.

Filtered logs are provided in Appendix A following the unfiltered log with the same graphs as discussed in the Direct-Sensing Log Generation section above except the fluorescence graphs is replaced with the 520CFRSo.85KM002 filtered data set.

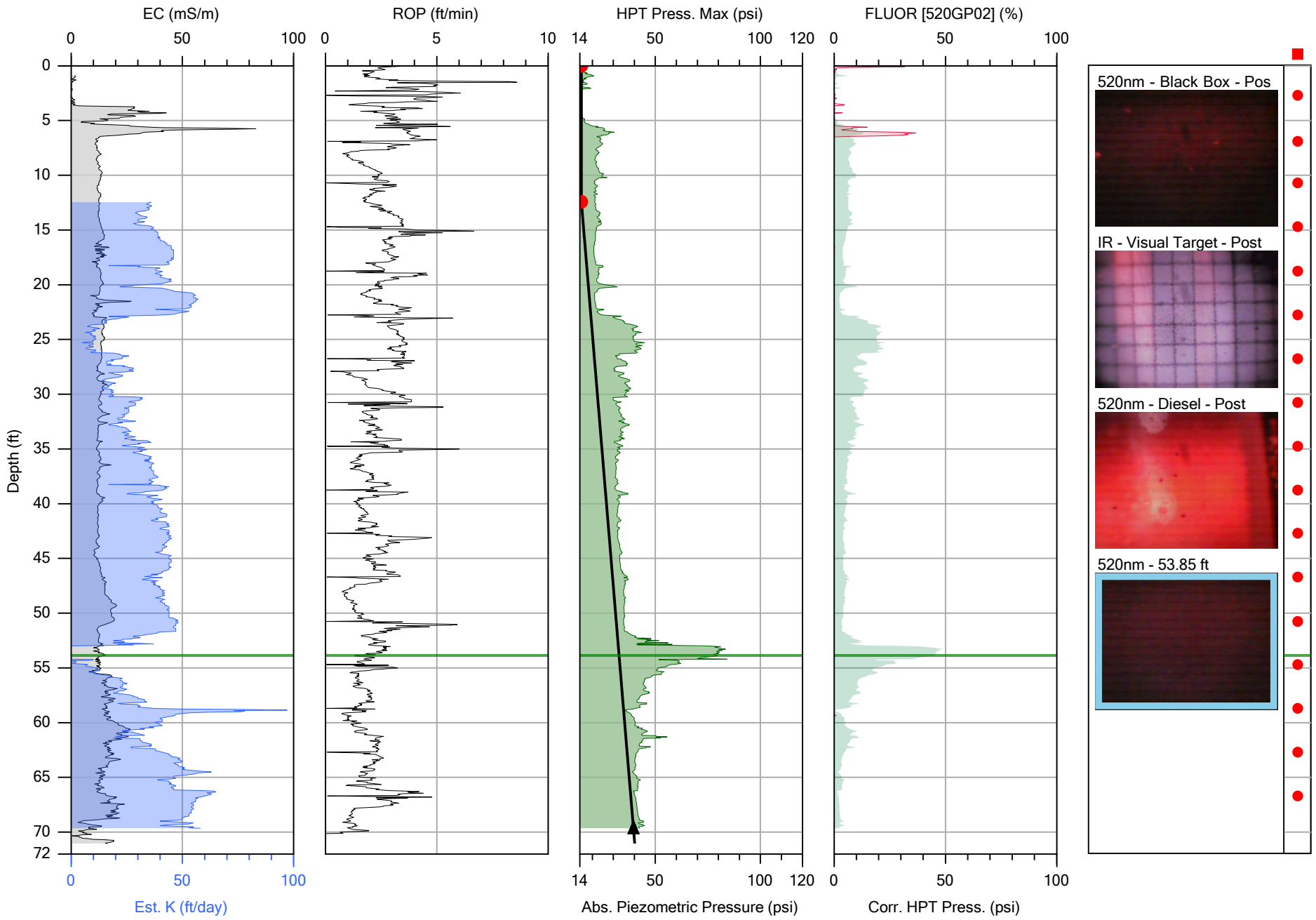
Four logs were specifically requested to be re-pushed by the client and included the following: SB-LIF-C1, SB-LIF-C6, SB-LIF-24, and SB-LIF-11. Re-pushed borings are designated with an "a" following the original boring ID (e.g., SB-LIF-C1a) and are included in Appendix A following the original log.

Table 1: OiHPTG QAQC Summary
GCL Tie and Treating Superfund Site

Location	Date	Refusal Depth
LIF-12	8/1/2022	72.05
LIF-15	8/2/2022	72.3
LIF-02	8/2/2022	77.05
LIF-07	8/3/2022	81.05
SB-LIF-01	8/10/2022	70.15
SB-LIF-03	8/11/2022	71.15
SB-LIF-05	8/11/2022	82.85
SB-LIF-06	8/11/2022	69.1
SB-LIF-09	8/12/2022	43.15
SB-LIF-09b	8/15/2022	61.8
SB-LIF-04	8/16/2022	78.3
SB-LIF-17	8/16/2022	10.7
SB-LIF-17b	8/16/2022	54.2
SB-LIF-17c	8/17/2022	60
SB-LIF-18	8/18/2022	45.05
SB-LIF-18b	8/19/2022	58.25
SB-LIF-19	8/23/2022	64
SB-LIF-10	8/23/2022	56
SB-LIF-13	8/25/2022	60.35
SB-LIF-14	8/25/2022	66.7
SB-LIF-08	8/25/2022	60.07
SB-LIF-16	8/26/2022	59.75
SB-LIF-26	8/29/2022	54.1
SB-LIF-26b	8/29/2022	16.55
SB-LIF-22	8/30/2022	60.55
SB-LIF-21	8/30/2022	66.4
SB-LIF-20	8/31/2022	67.95
SB-LIF-25	8/31/2022	9.2
SB-LIF-25b	9/1/2022	61.9
SB-LIF-C5	9/1/2022	12.35
SB-LIF-C5b	9/1/2022	47.75
SB-LIF-C6	9/2/2022	56.35
SB-LIF-C6b	9/7/2022	56.35
SB-LIF-C1	9/7/2022	54.9
SB-LIF-24	9/7/2022	60.95
SB-LIF-C7	9/13/2022	55.45
SB-LIF-C4	9/13/2022	61.8
SB-LIF-11a	9/13/2022	66.4
SB-LIF-C8	9/13/2022	49.2

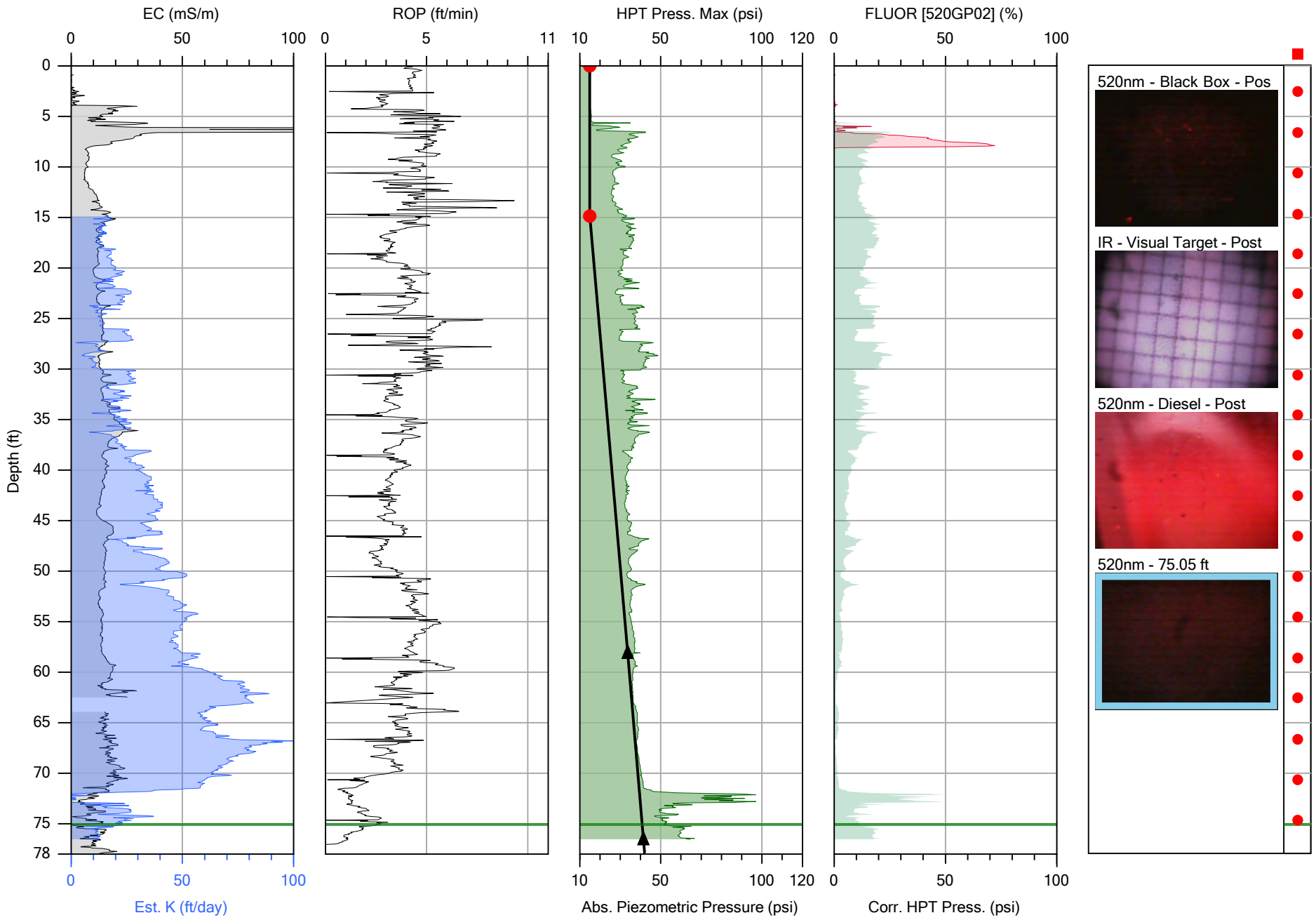
Table 1: OiHPTG QAQC Summary
GCL Tie and Treating Superfund Site

SB-LIF-C1a	9/14/2022	52.45
SB-LIF-24a	9/14/2022	60.2
SB-LIF-C6A	9/14/2022	41.4
SB-LIF-C9	9/14/2022	59.85
SB-LIF-27	9/15/2022	81.25
SB-LIF-C3	9/15/2022	75.95
SB-LIF-C2	9/15/2022	75.9

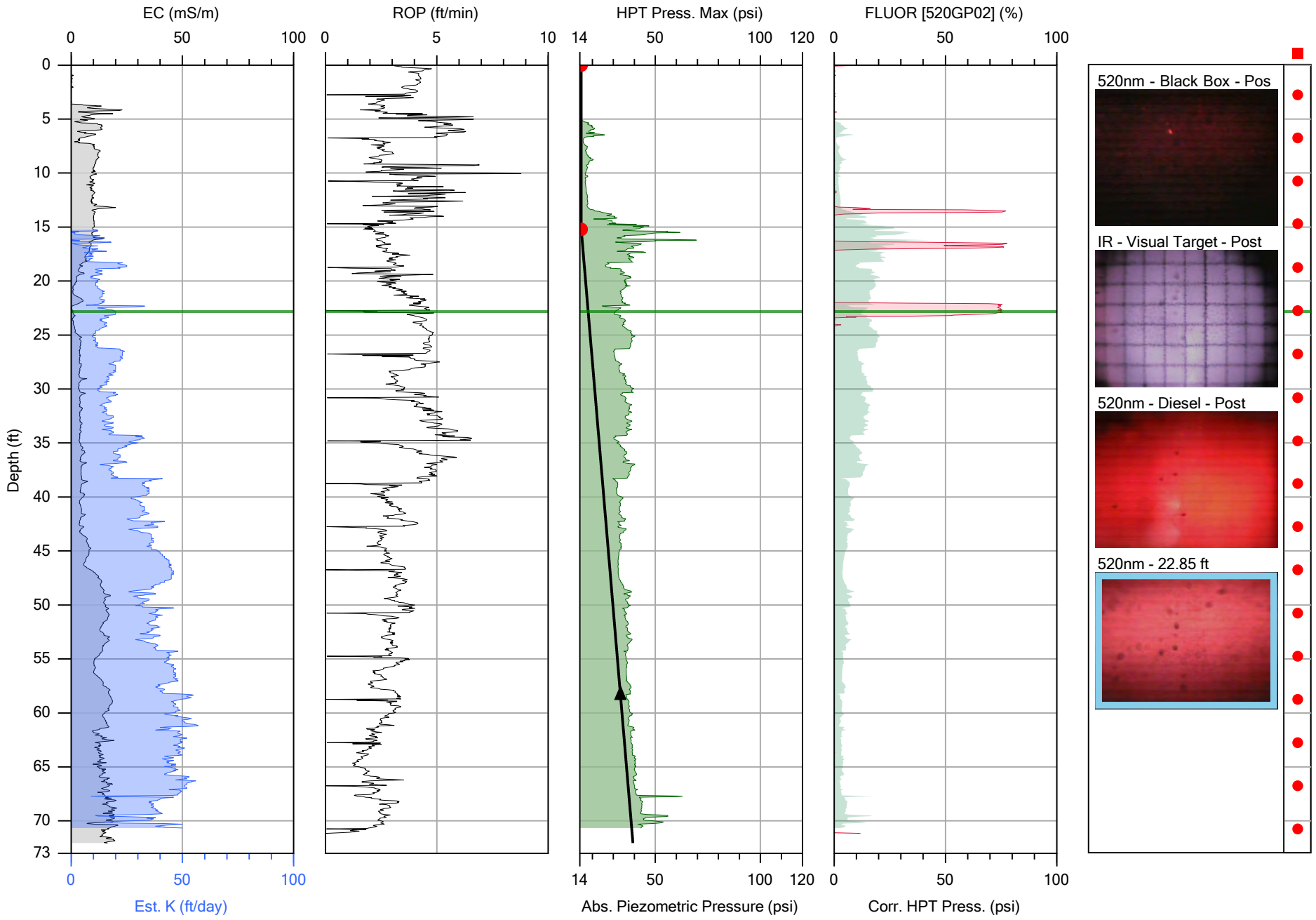


S2C2

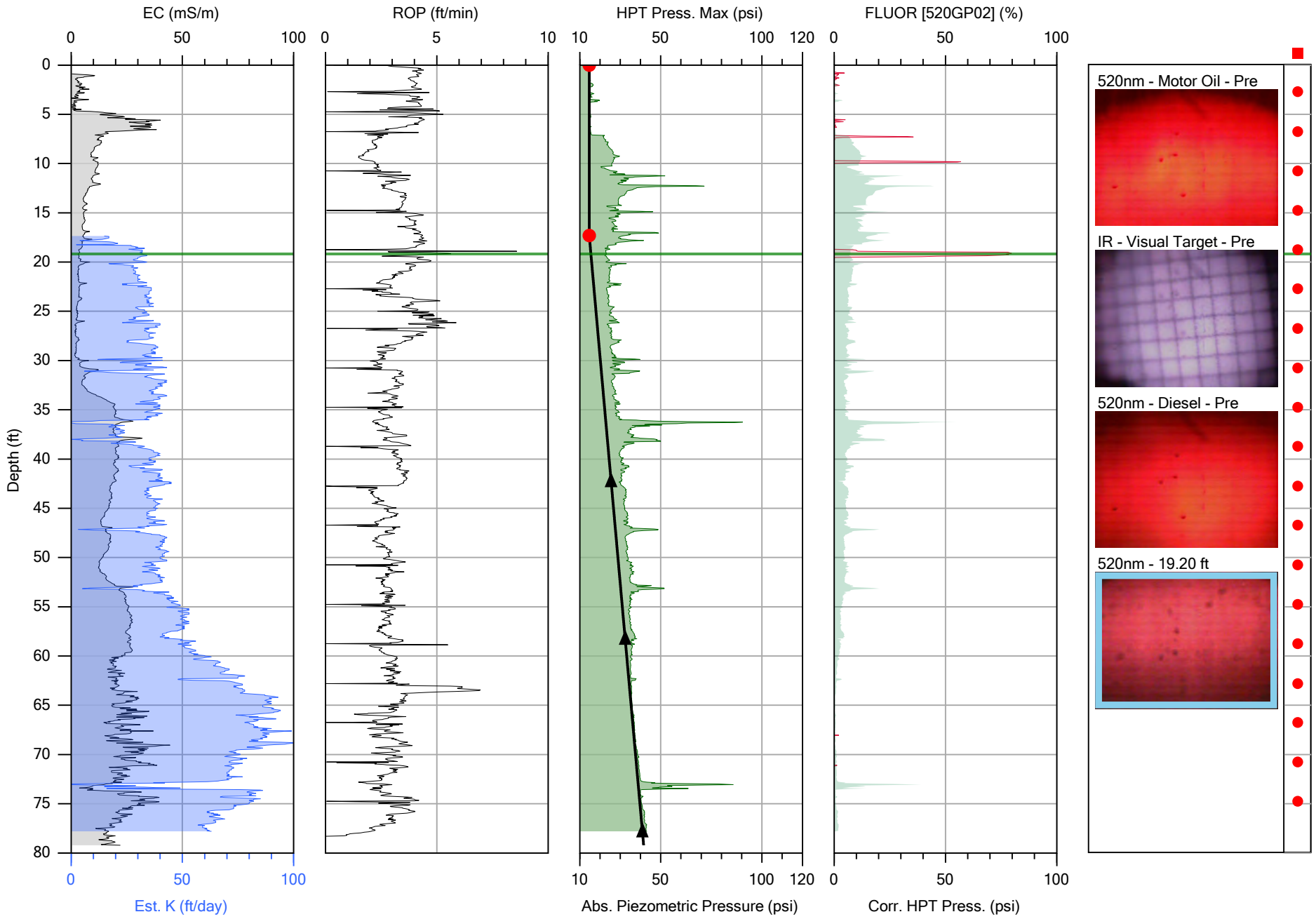
			File: SB-LIF-01.OIHP
Company: S2C2	Operator: TH		Date: 8/10/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



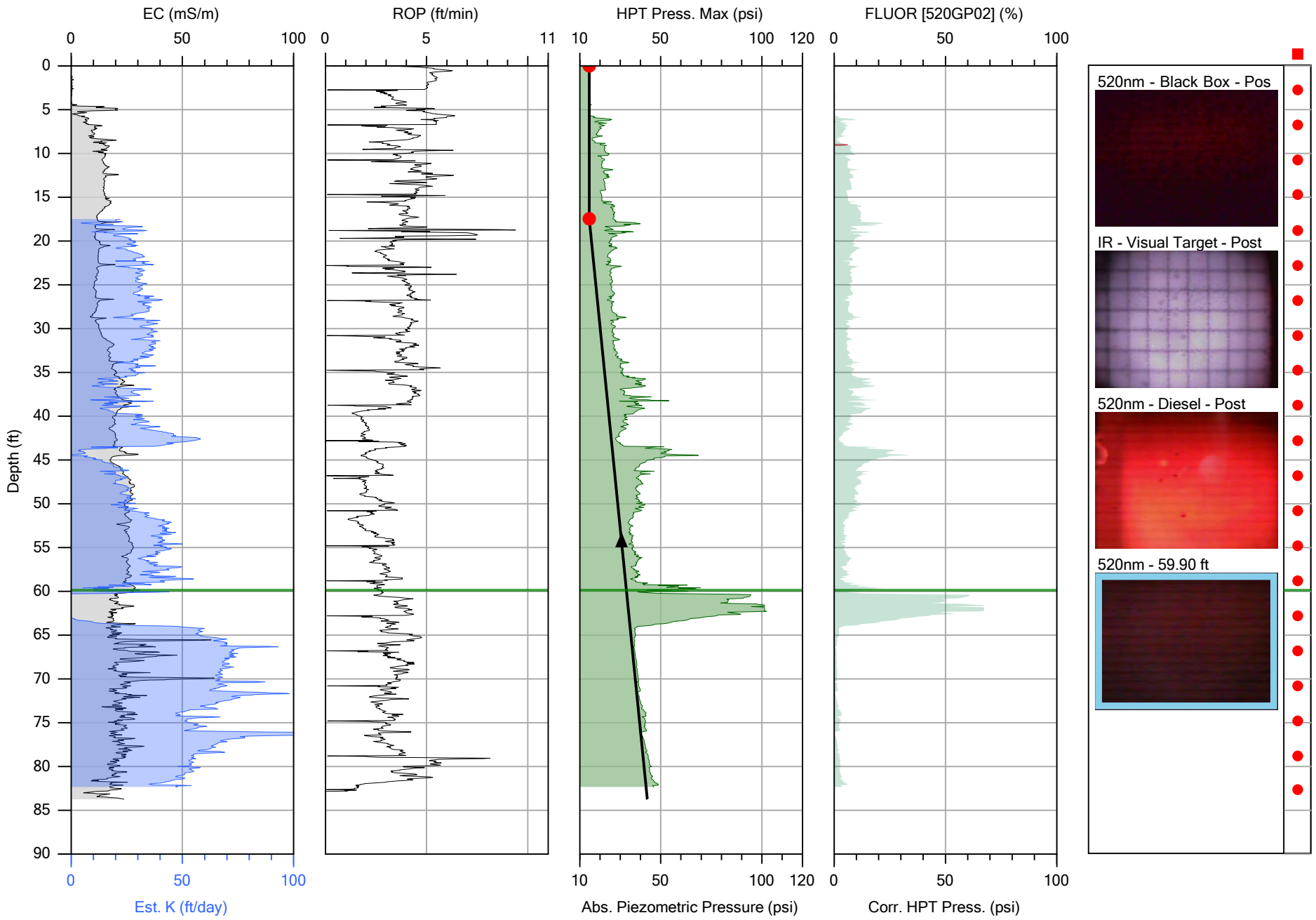
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Company: S2C2	Operator: TK	Date: 8/2/2022	
Project ID: GCL PDI	Client: HDR	Location: LIF-02	



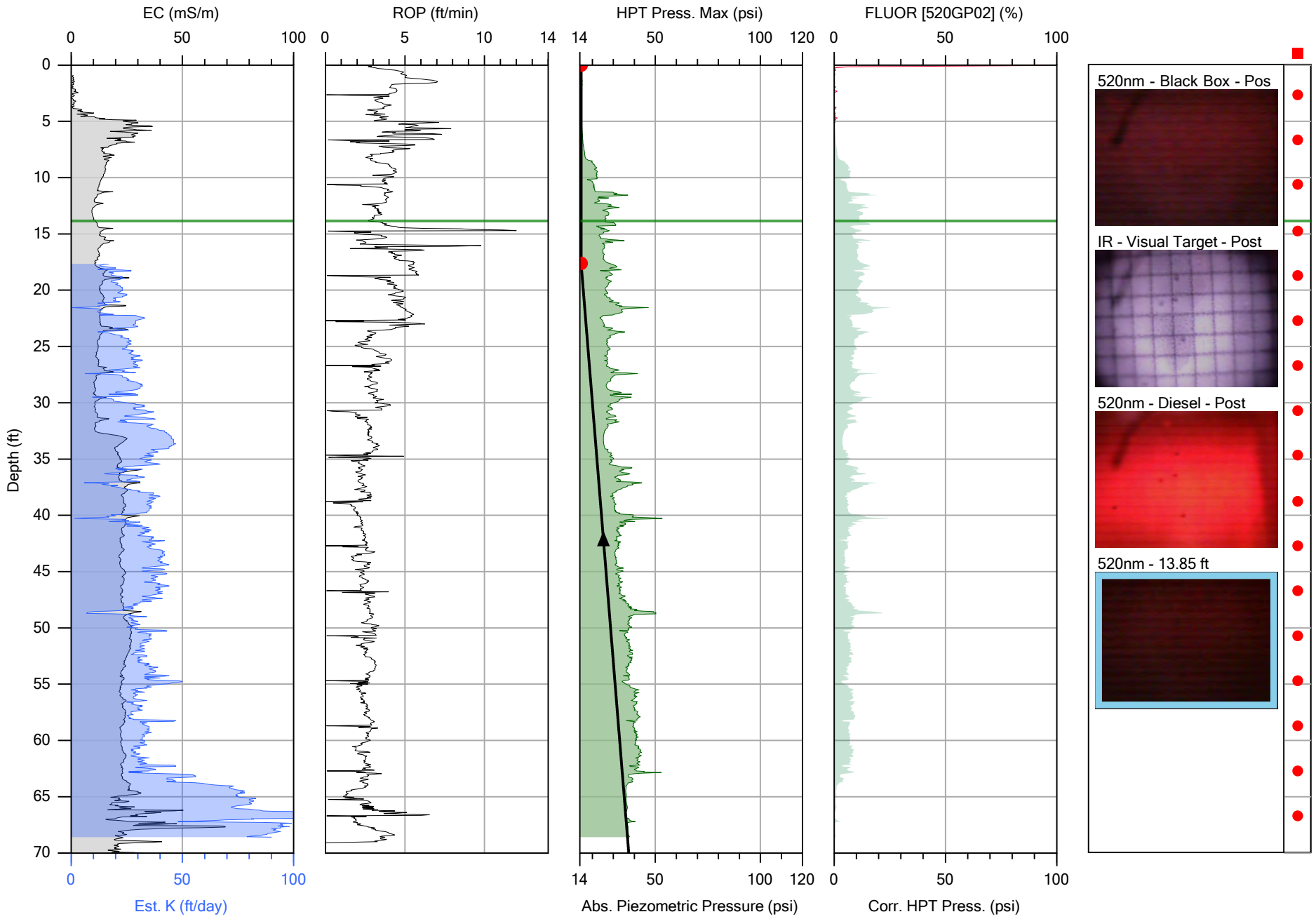
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Company: S2C2		Operator: TH	Date: 8/11/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



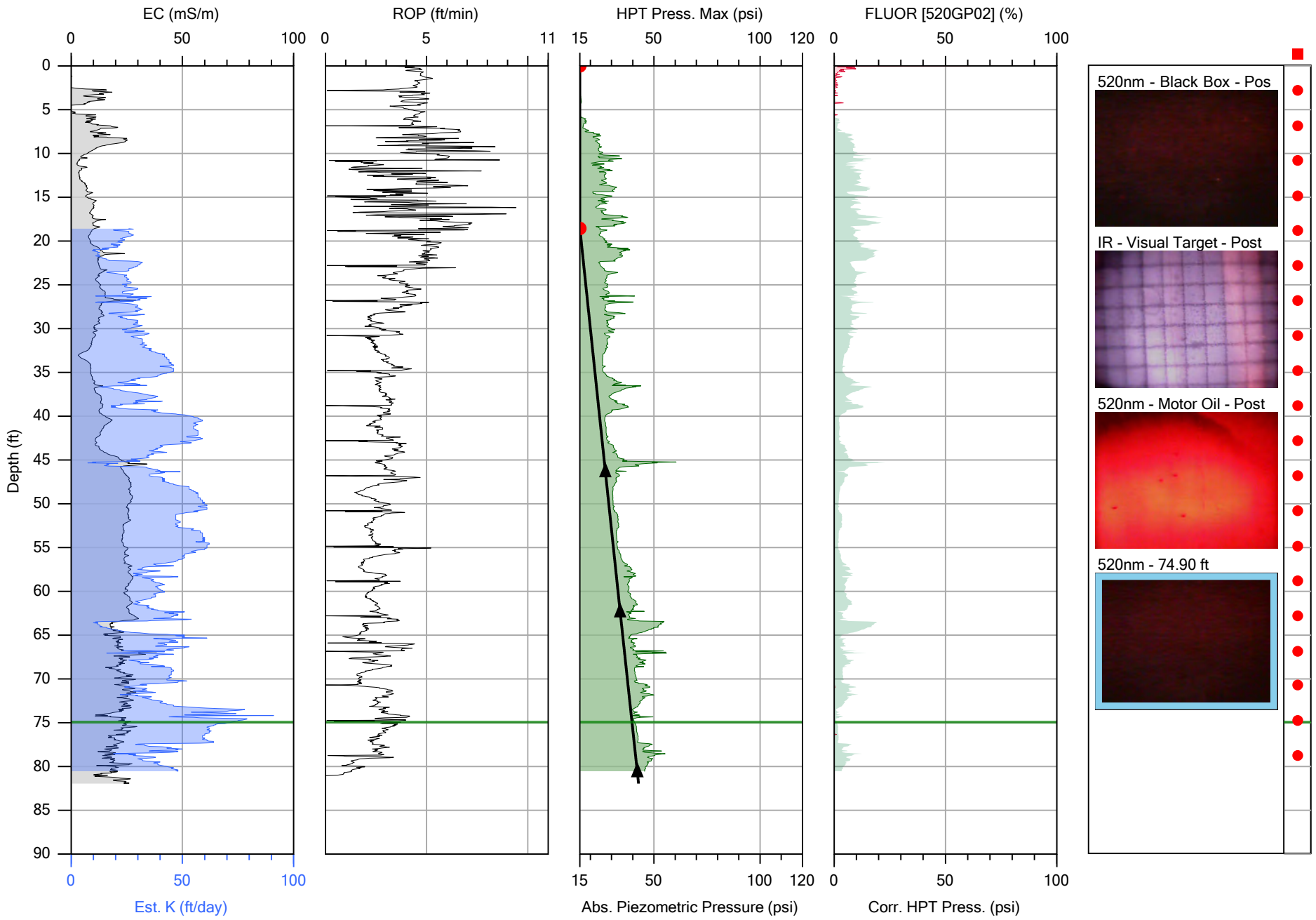
			File: SB-LIF-04.OIHP
Company: S2C2		Operator: TH	Date: 8/16/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



			File: SB-LIF-05.OIHP
Company: S2C2	Operator: TH	Date: 8/11/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

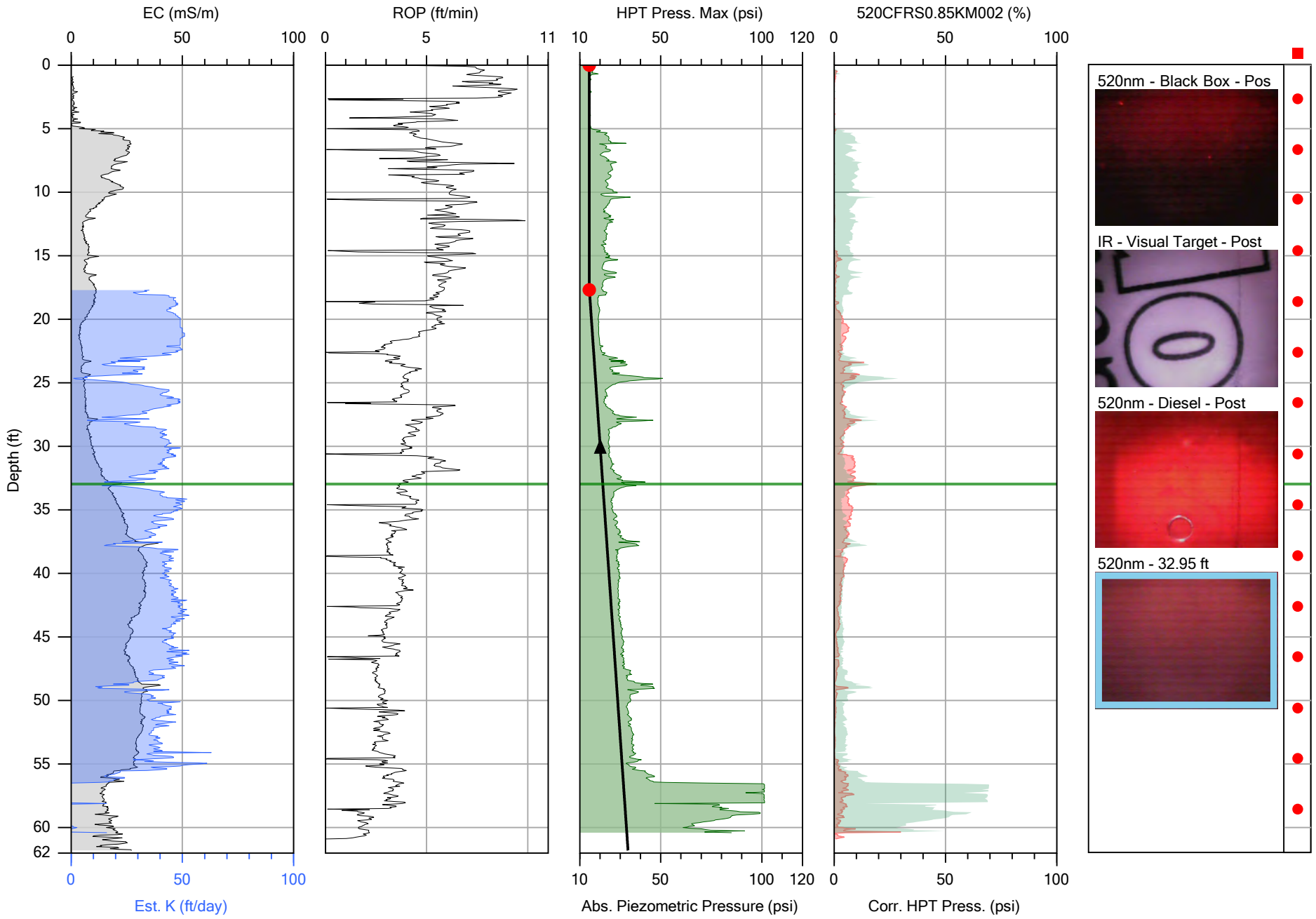


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Company: S2C2		Operator: TH	Date: 8/11/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY

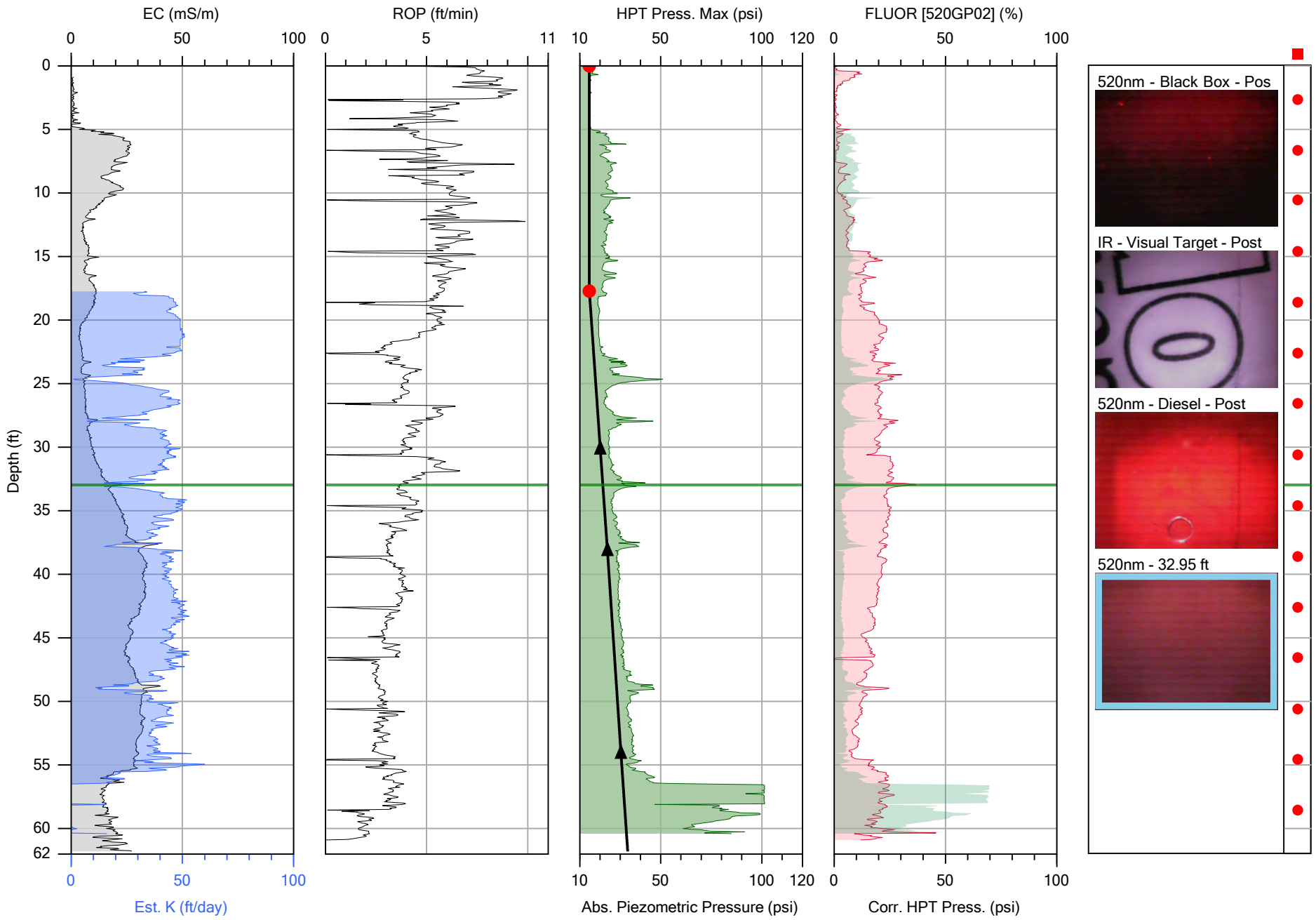


S2C2

Company: S2C2	Operator: TK	File: LIF-07.OIHP	
Project ID: GCL PDI	Client: HDR	Date: 8/3/2022	Location: LIF-07

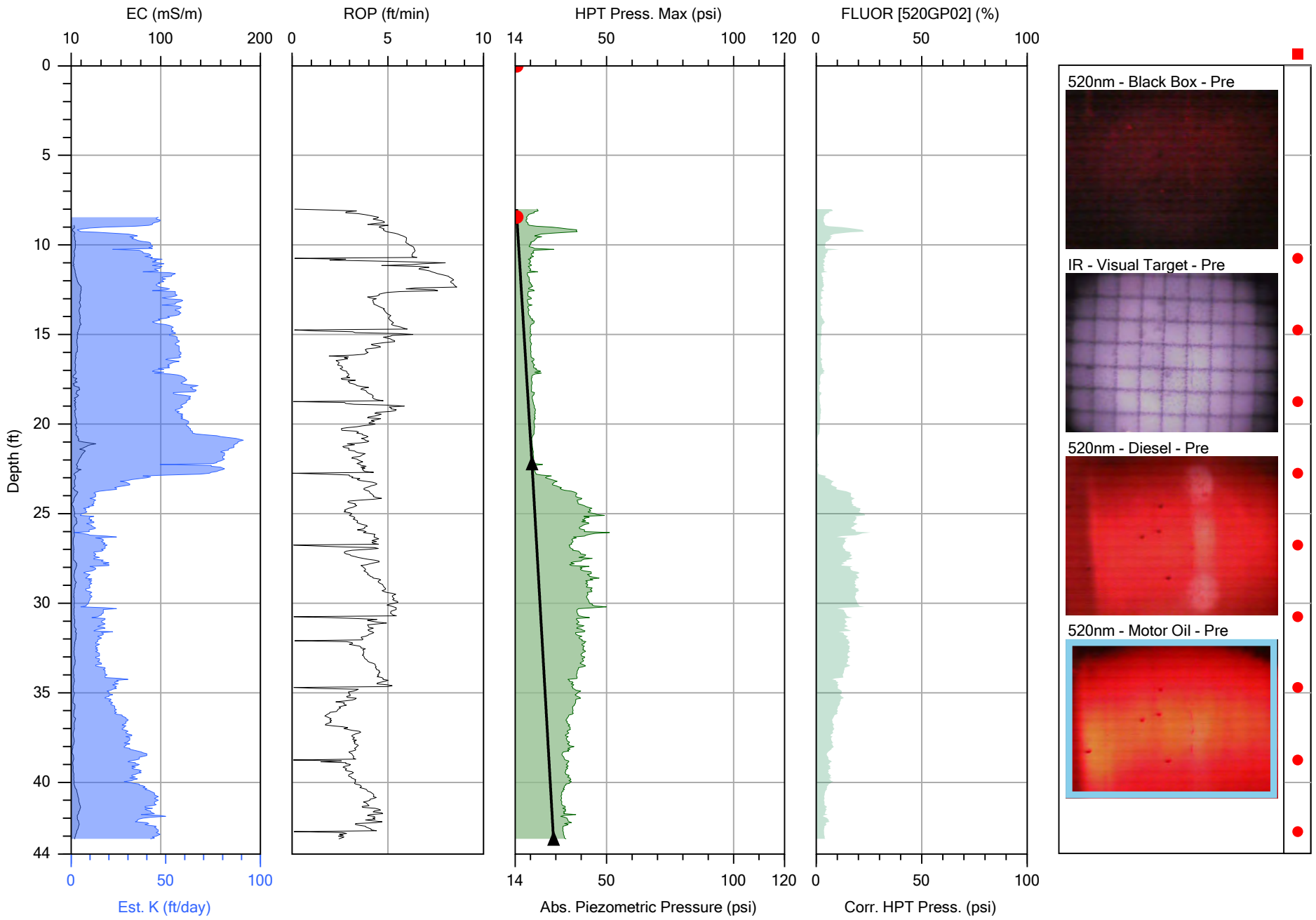


			File: SB-LIF-08.OIHP
Company: S2C2	Operator: RMR	Date: 8/25/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

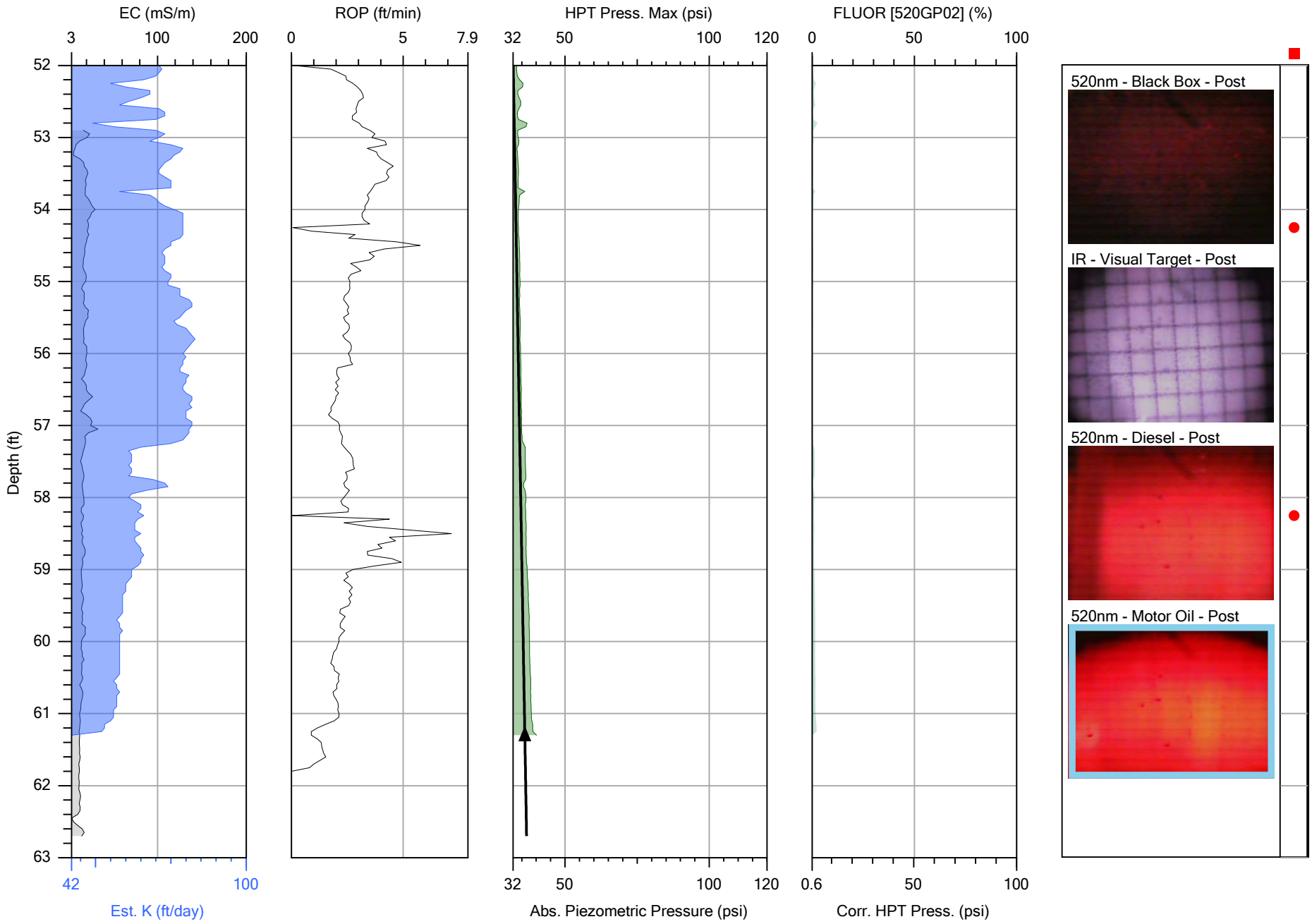


S2C2

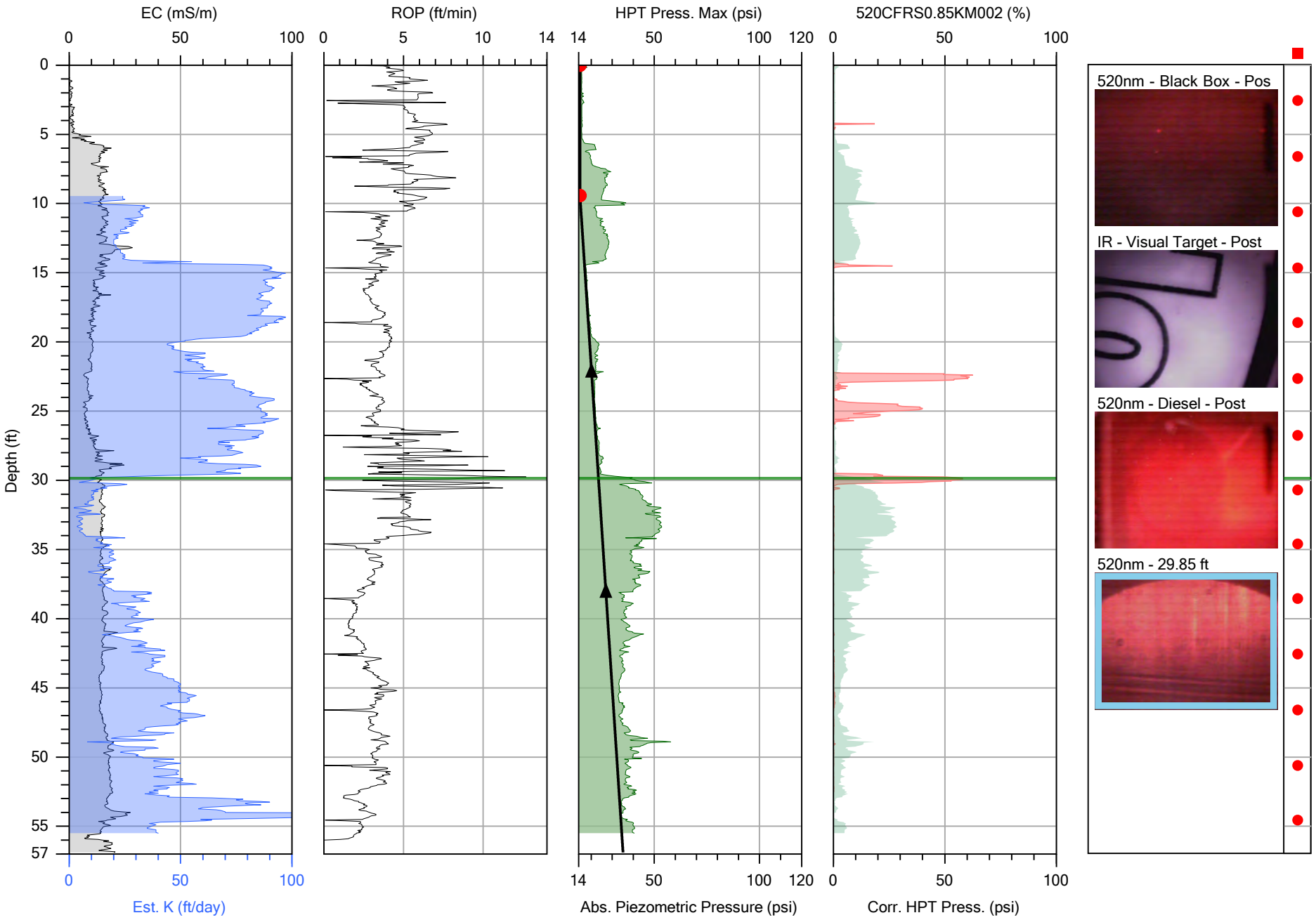
Company: S2C2	Operator: RMR		File: SB-LIF-08.OIHP
Project ID: GCL PDI	Client: Parratt-Wolff		Date: 8/25/2022
			Location: Sidney, NY



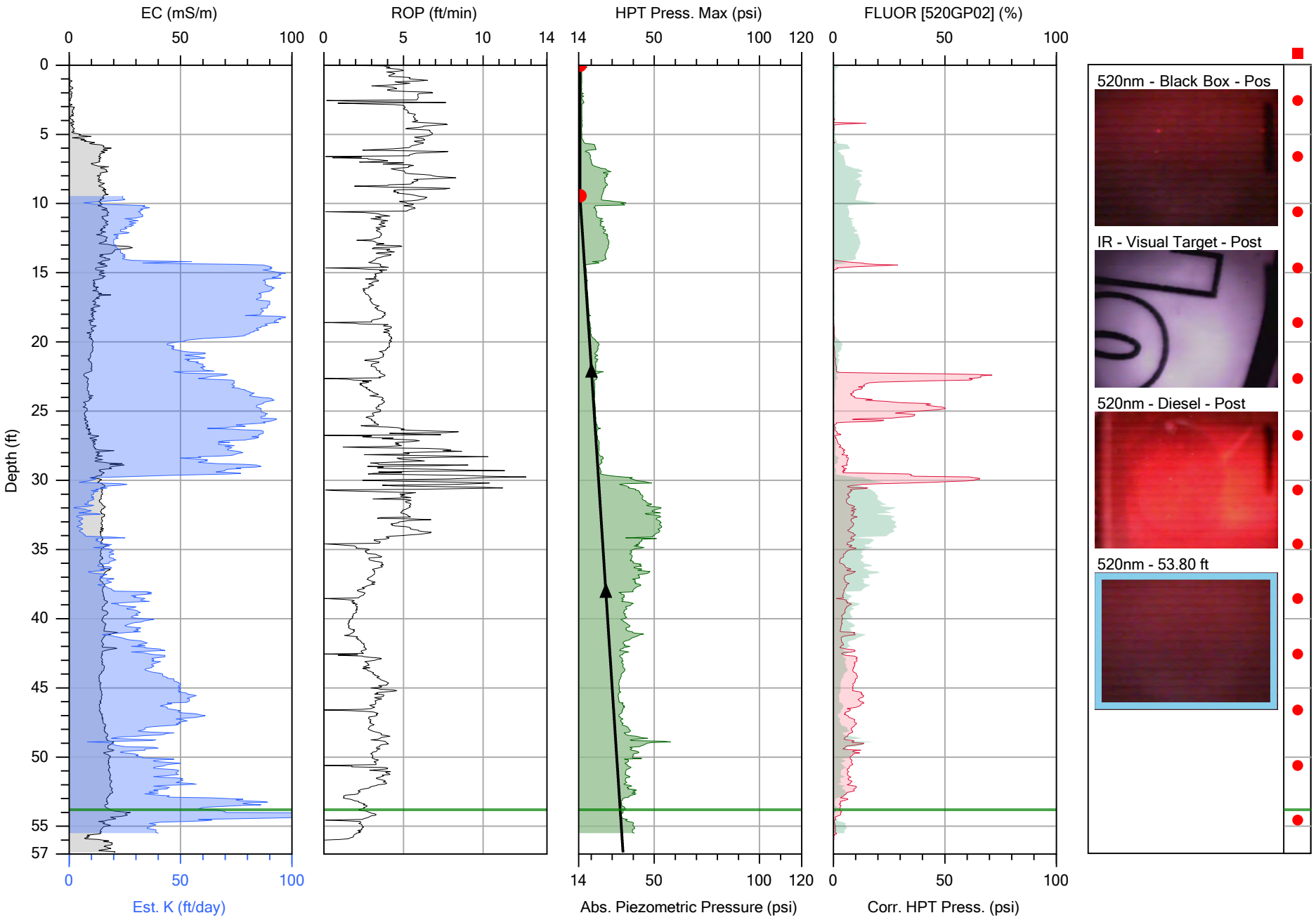
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Company: S2C2		Operator: TH	Date: 8/12/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



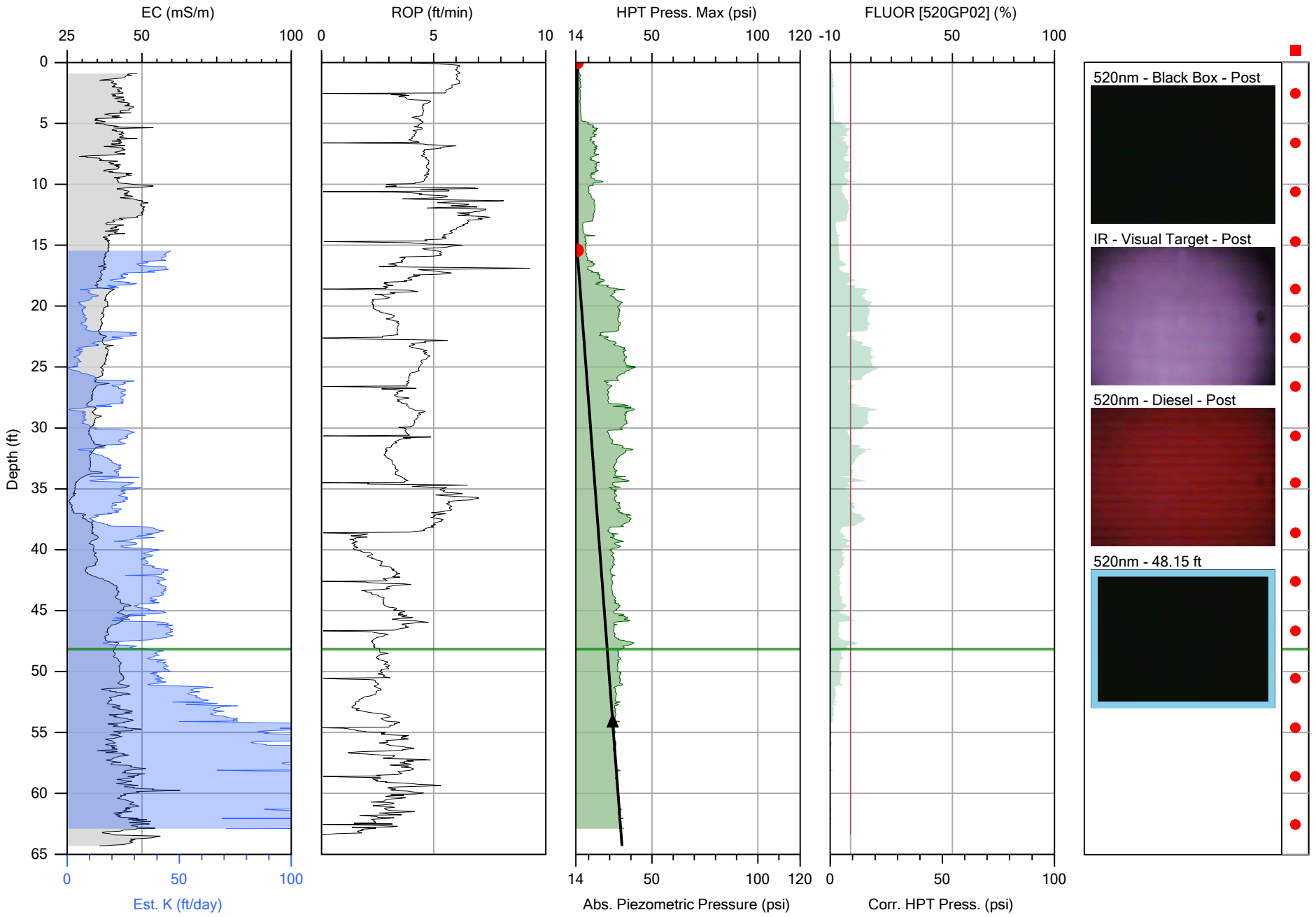
			File: SB-LIF-09B.OIHP
Company: S2C2	Operator: TH		Date: 8/15/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



			File: SB-LIF-10.OIHP
Company: S2C2	Operator: RMR	Date: 8/23/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

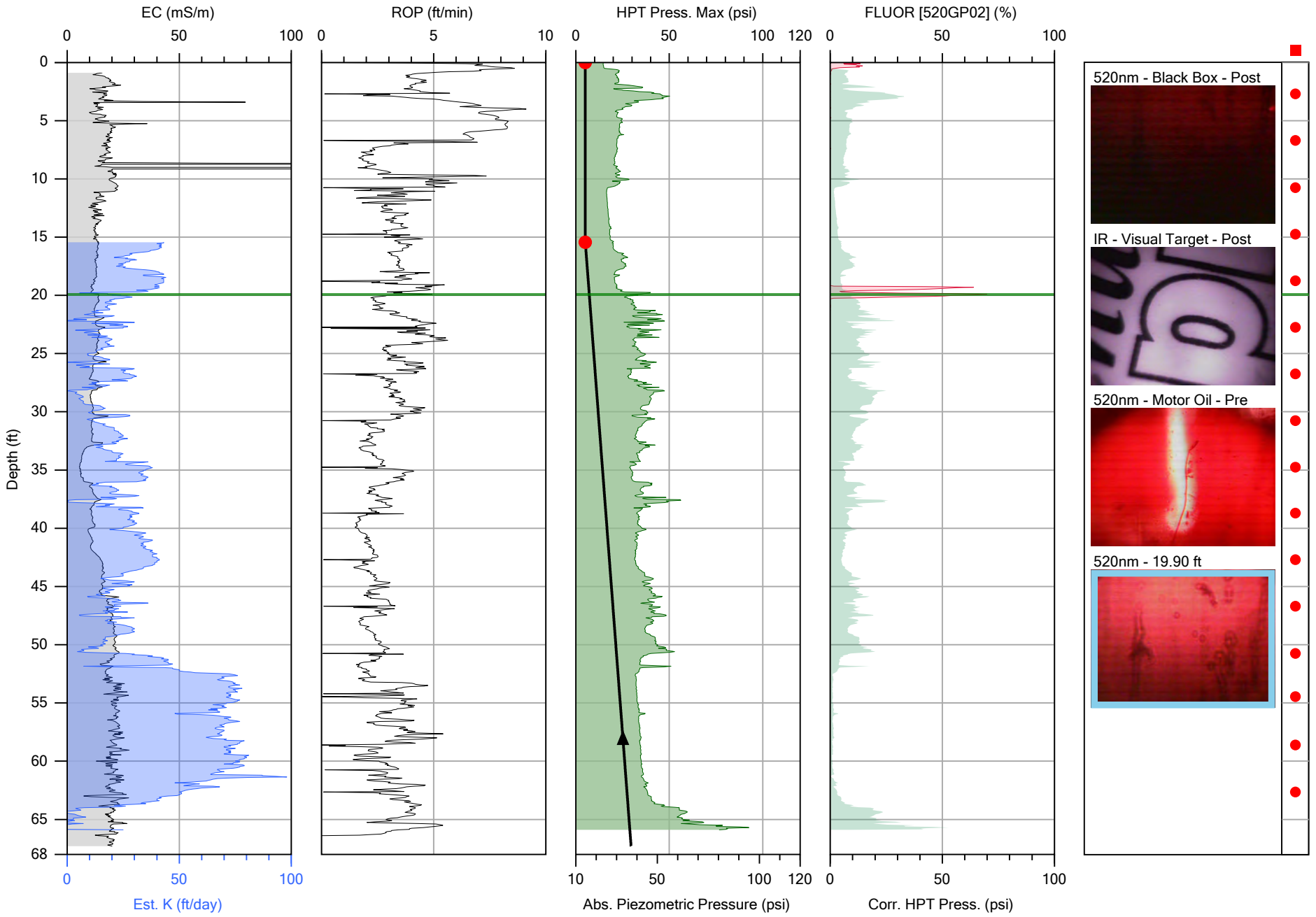


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Company: S2C2	Operator: RMR	Date: 8/23/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	



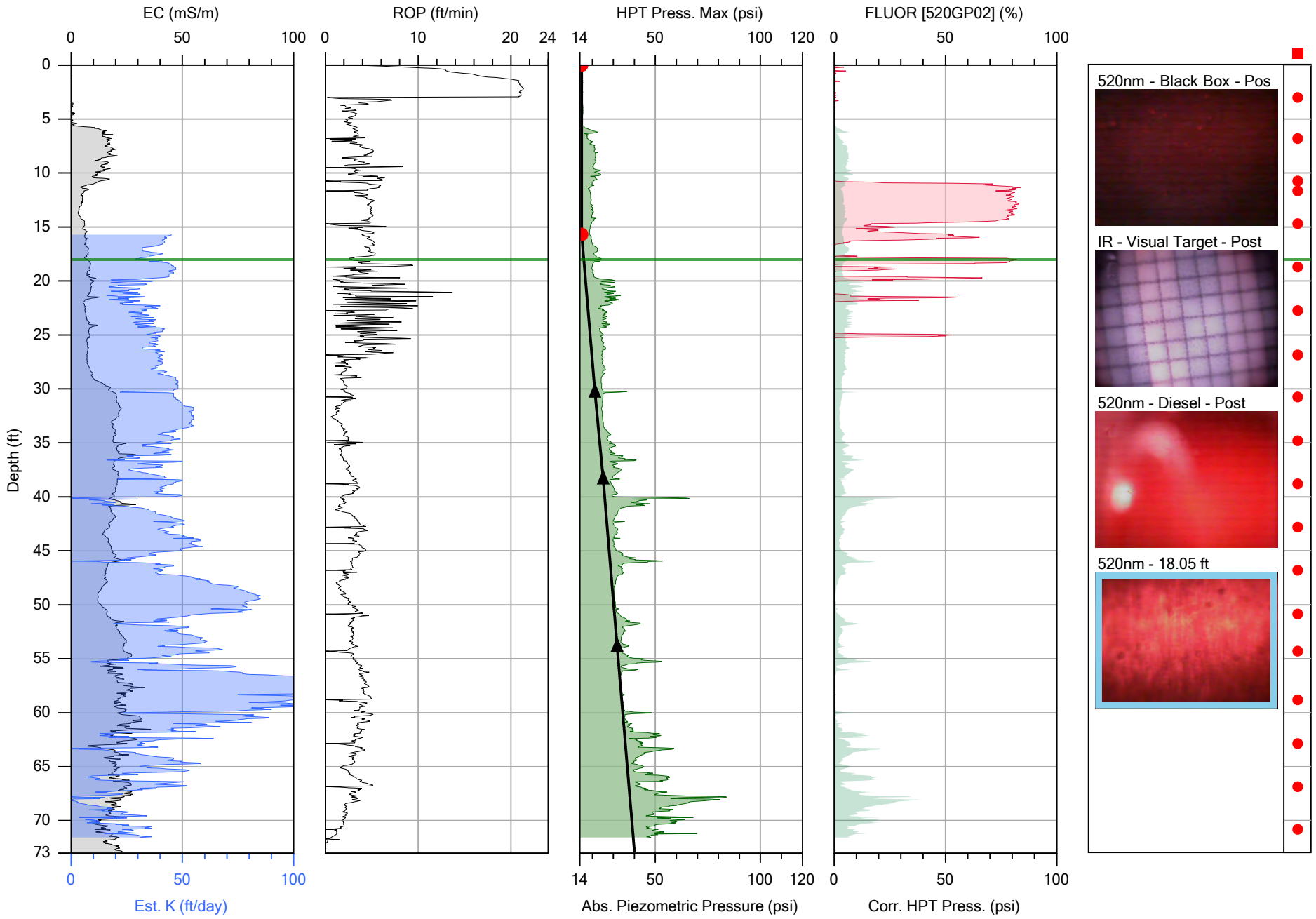
S2 C2

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Company: S2C2	Operator: TH	Date: 9/7/2022
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY

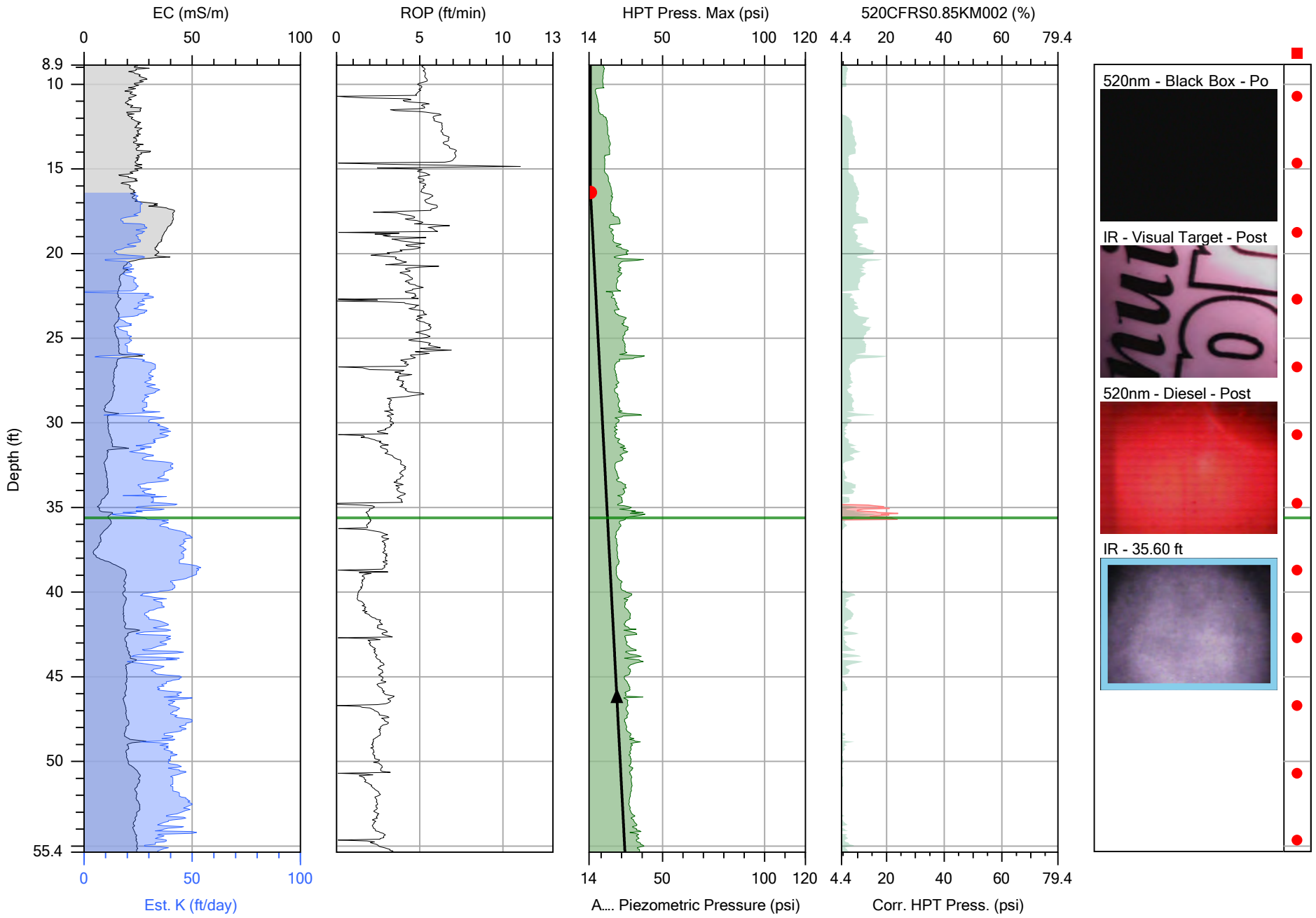


S2C2

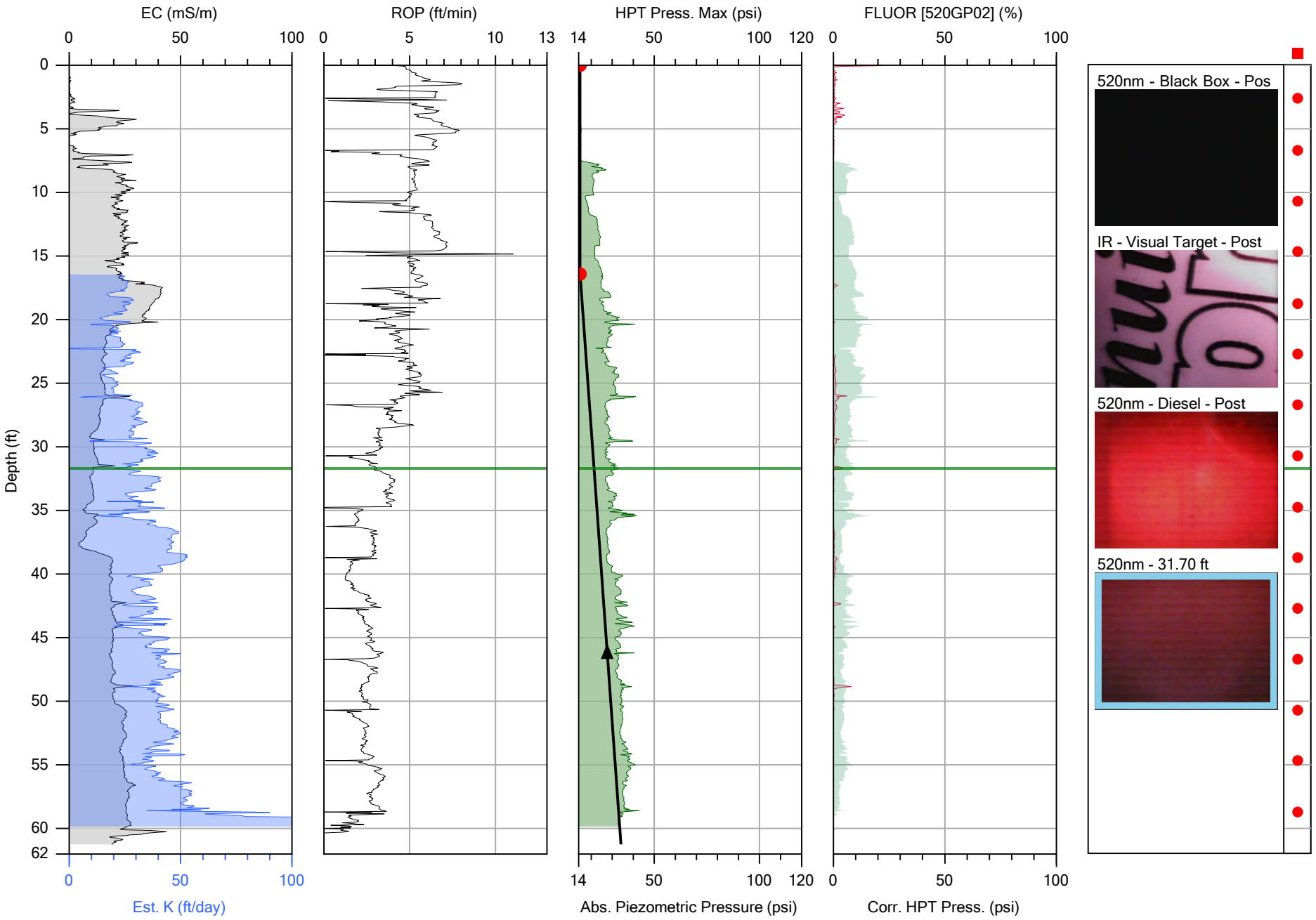
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Company: S2C2		Operator: MR	Date: 9/13/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



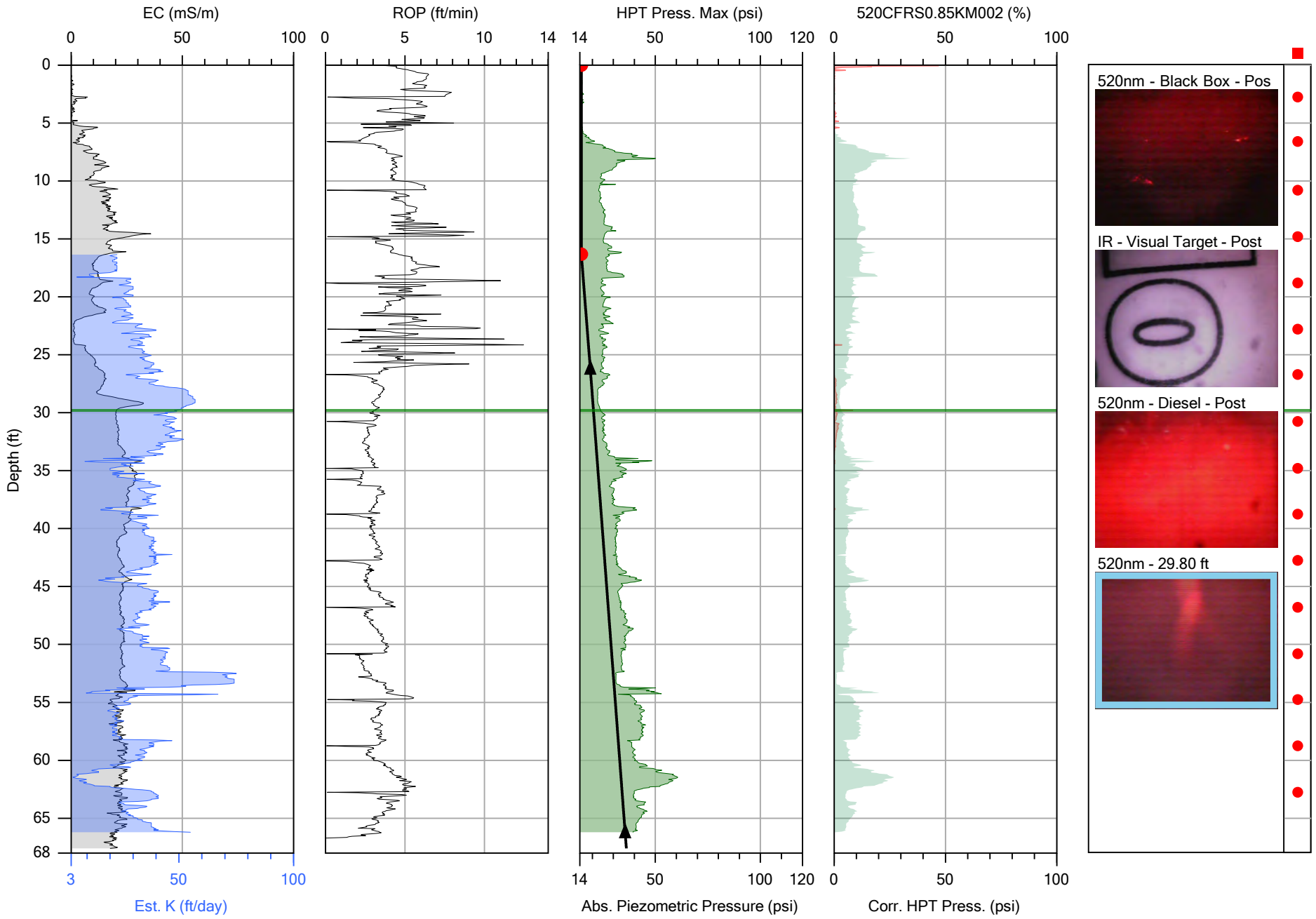
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Company: S2C2	Operator: TK		Date: 8/1/2022
Project ID: GCL PDI	Client: HDR		Location: LIF-12



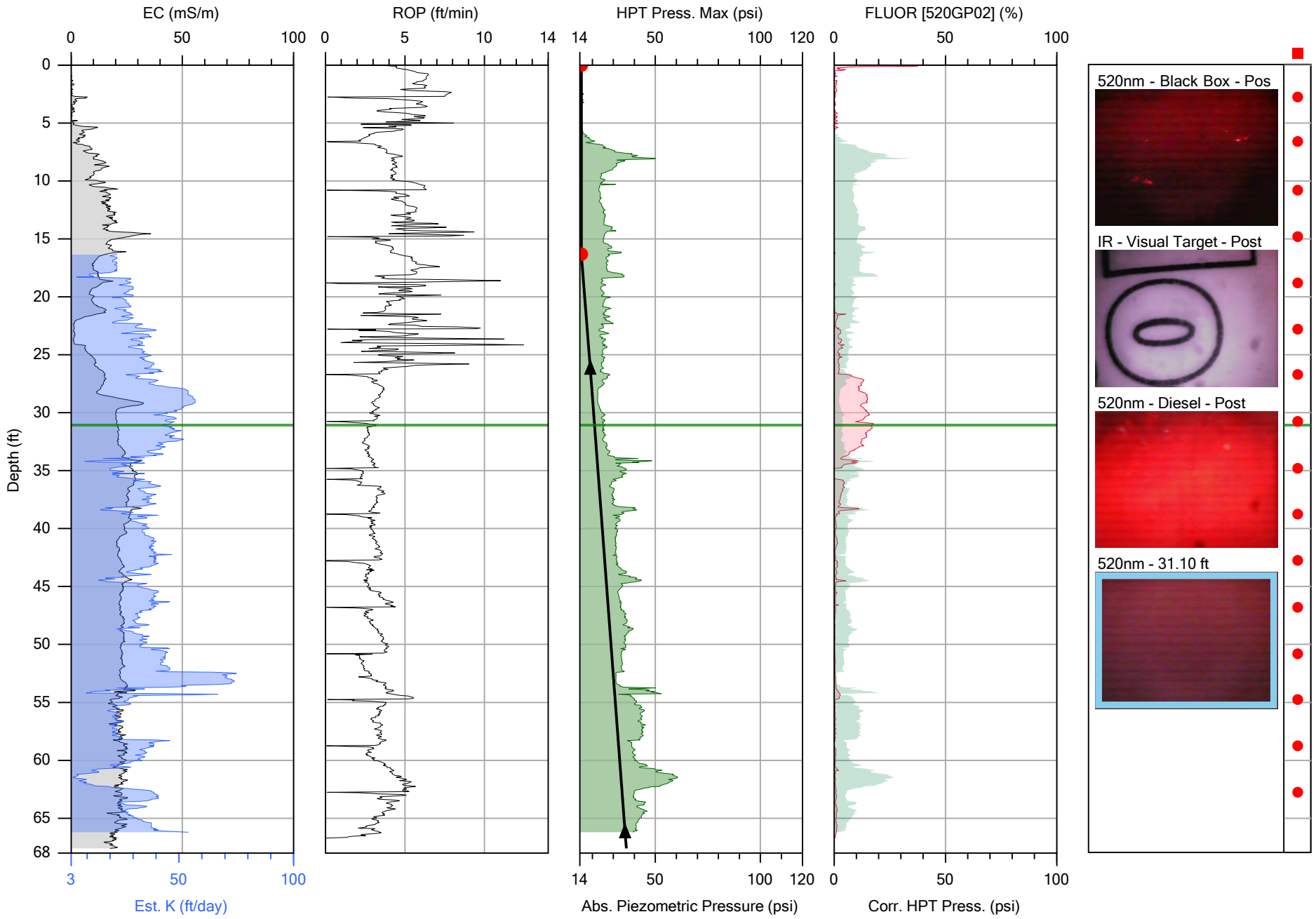
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Company: S2C2	Operator: RMR		Date: 8/25/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



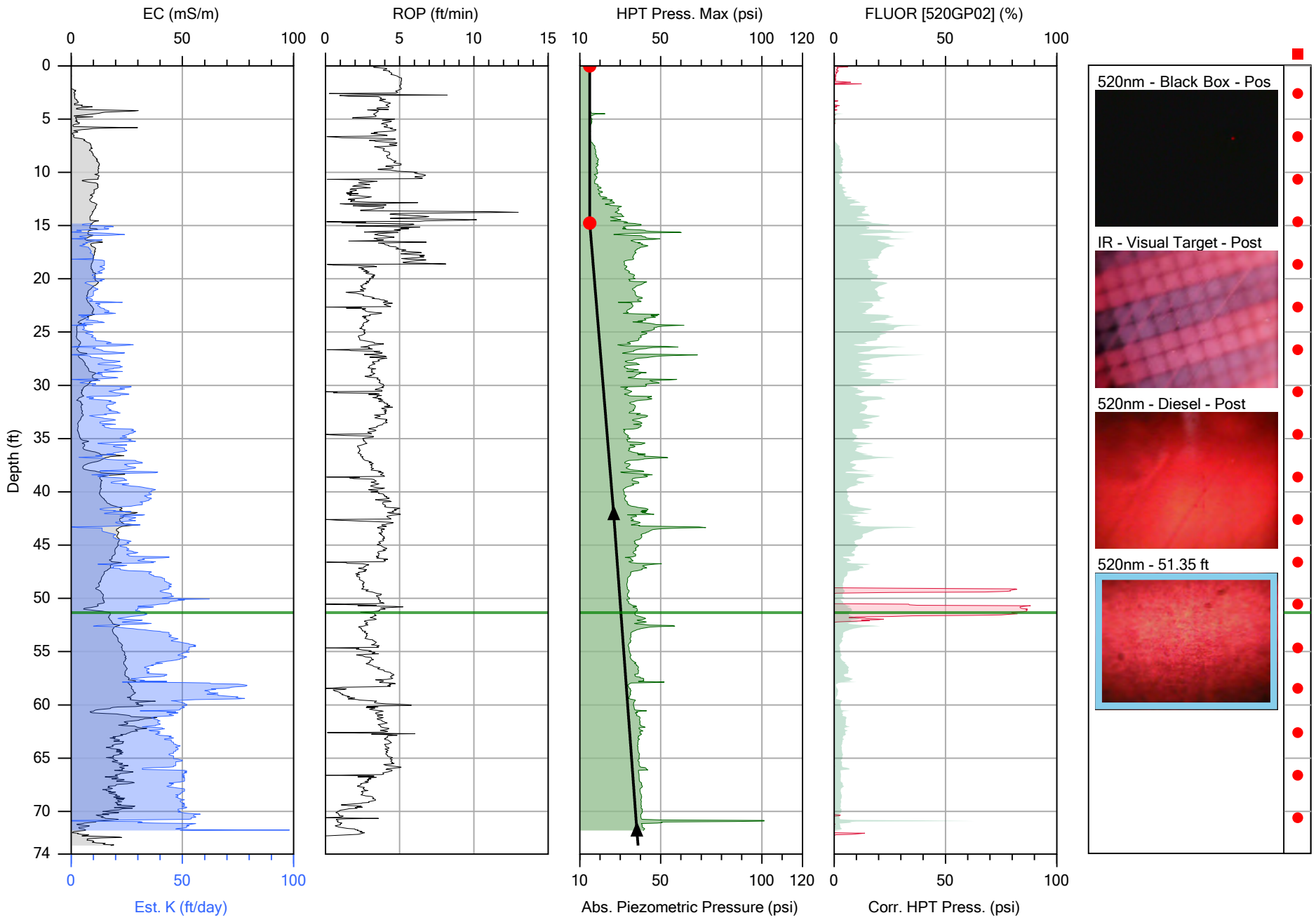
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Company: S2C2	Operator: RMR		Date: 8/25/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



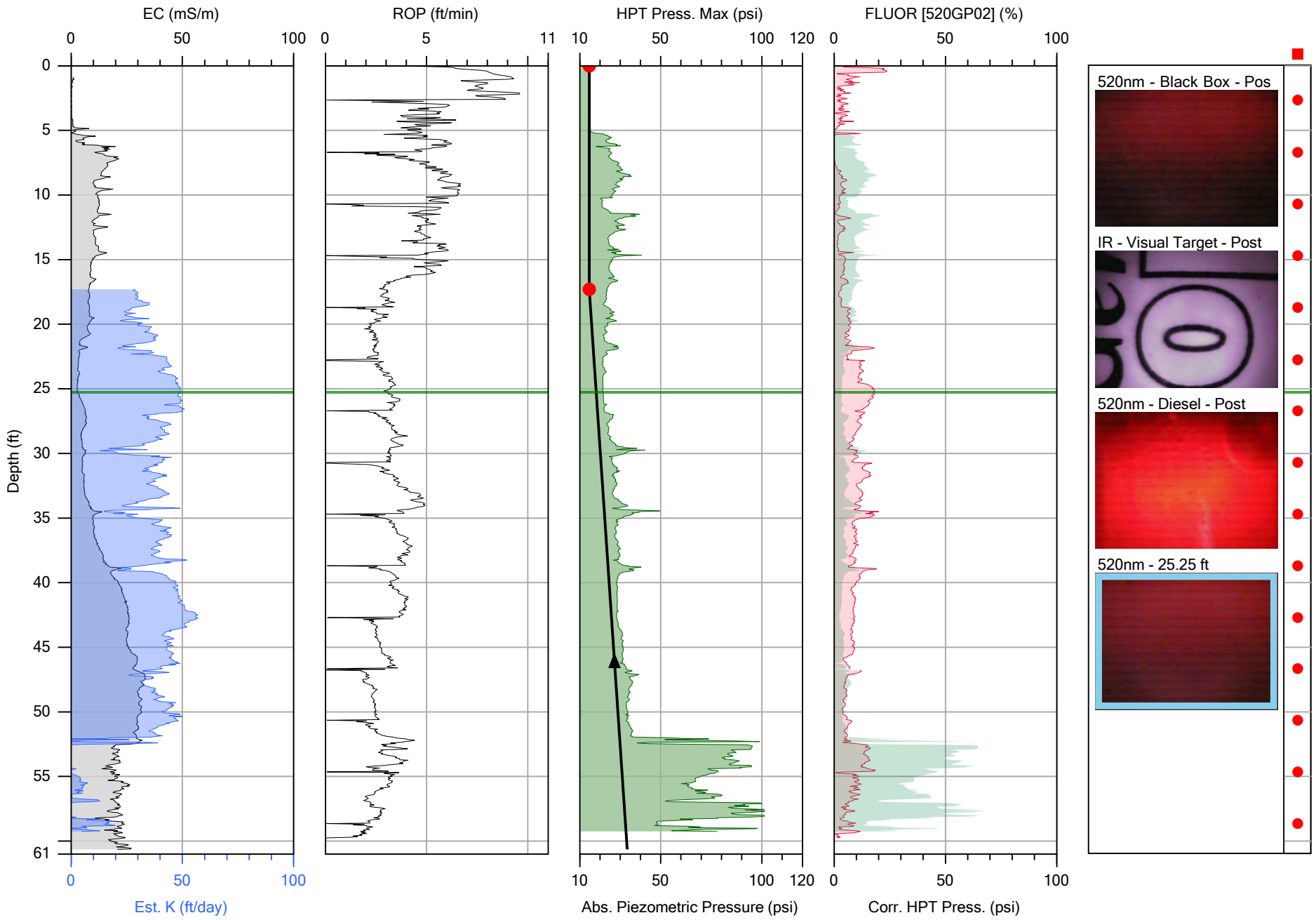
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Company: S2C2		Operator: RMR	Date: 8/25/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



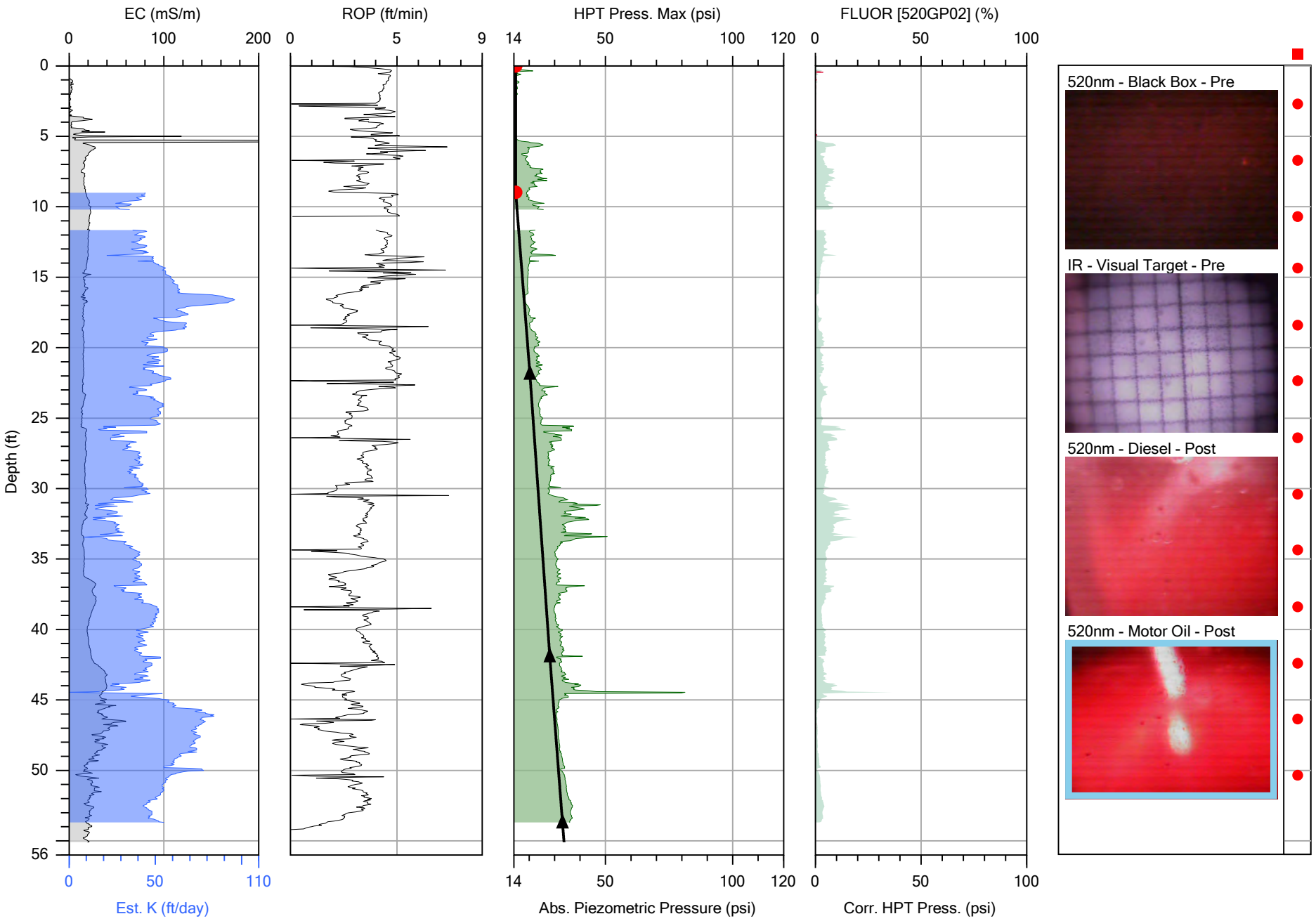
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Company: S2C2		Operator: RMR	Date: 8/25/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



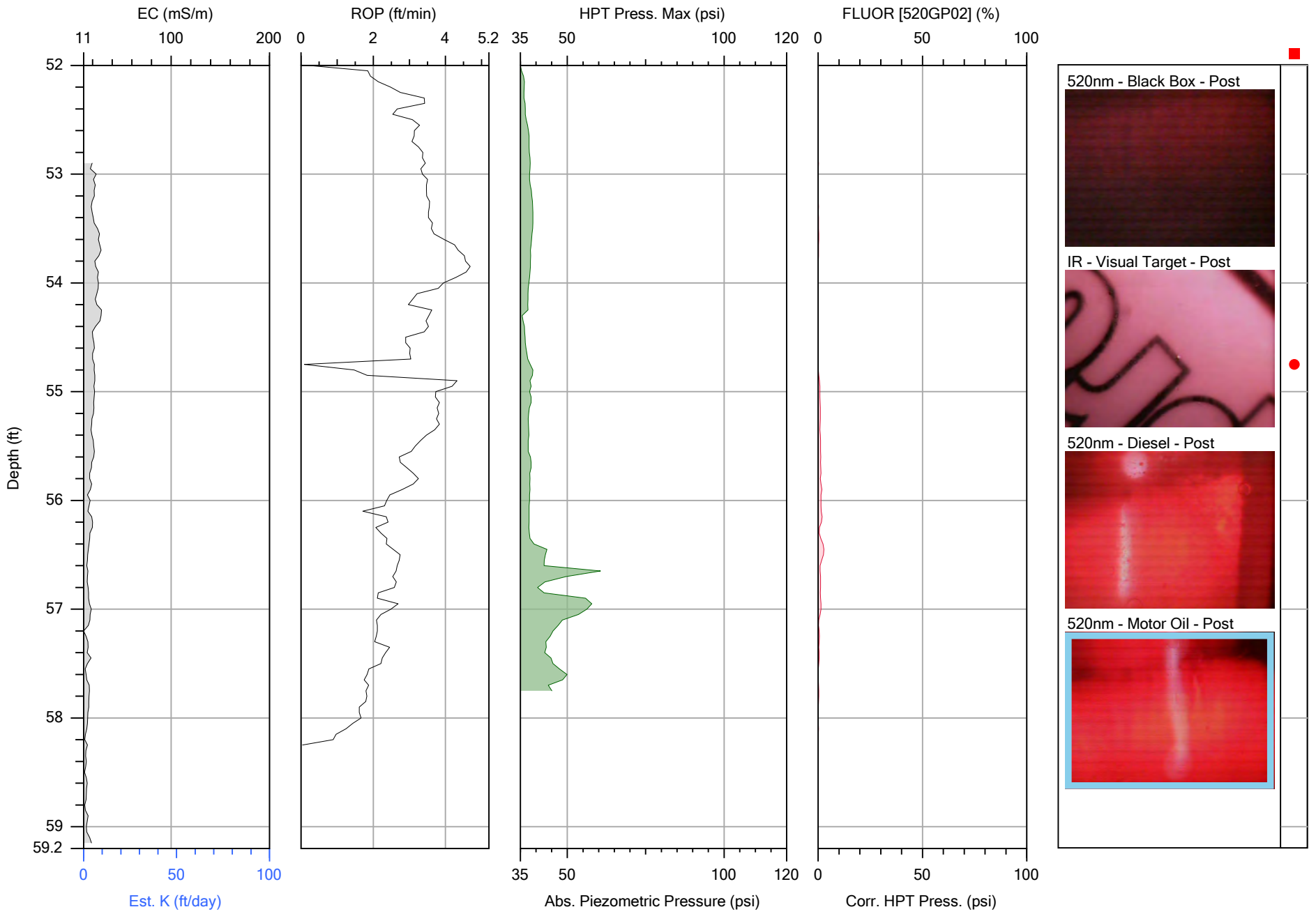
			File: LIF-15.OIHP
Company: S2C2		Operator: TK	Date: 8/2/2022
Project ID: GCL PDI		Client: HDR	Location: LIF-15



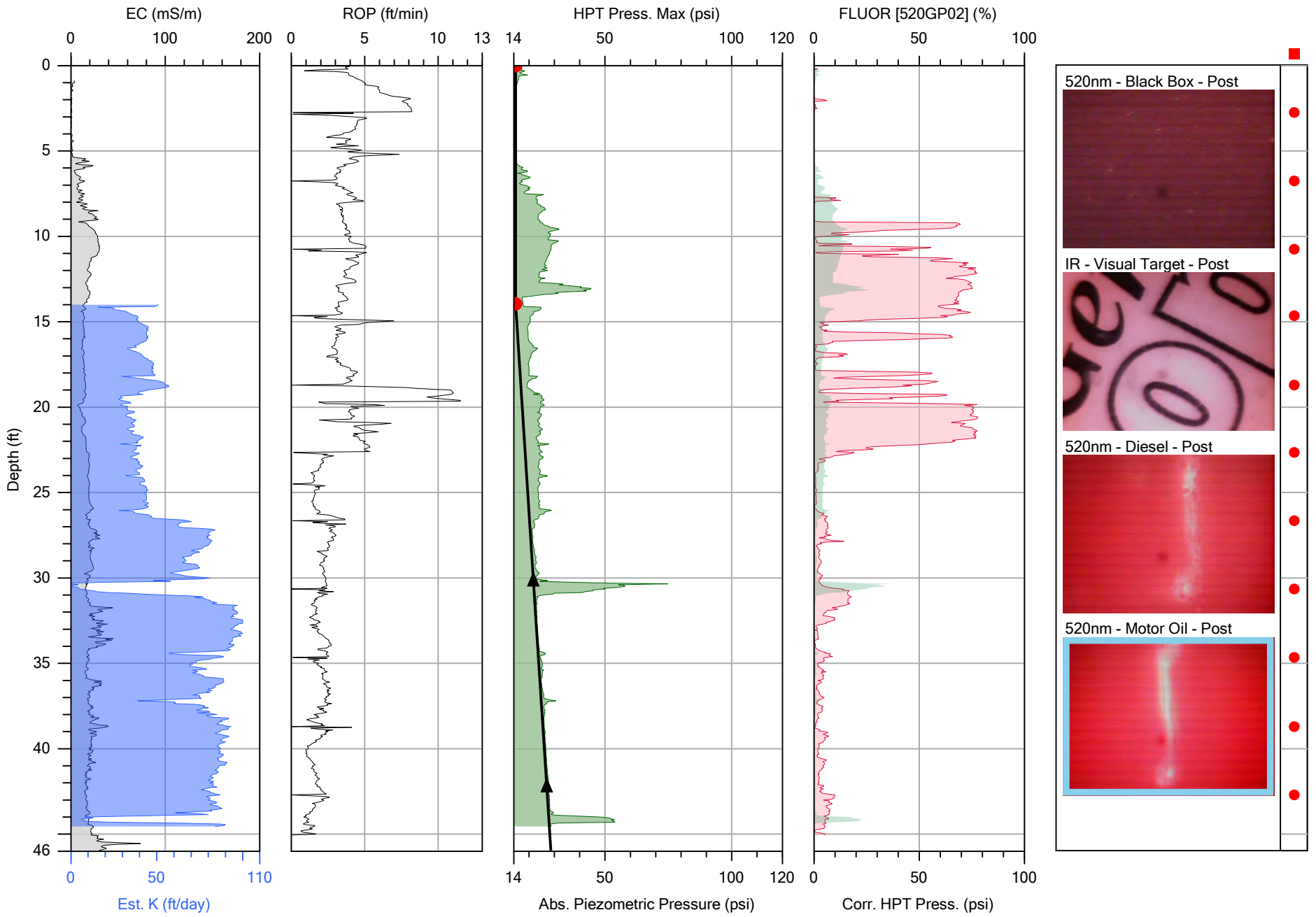
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Company: S2C2	Operator: RMR	Date: 8/26/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	



			File: SB-LIF-17.OIHP
Company: S2C2	Operator: TH	Date: 8/16/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

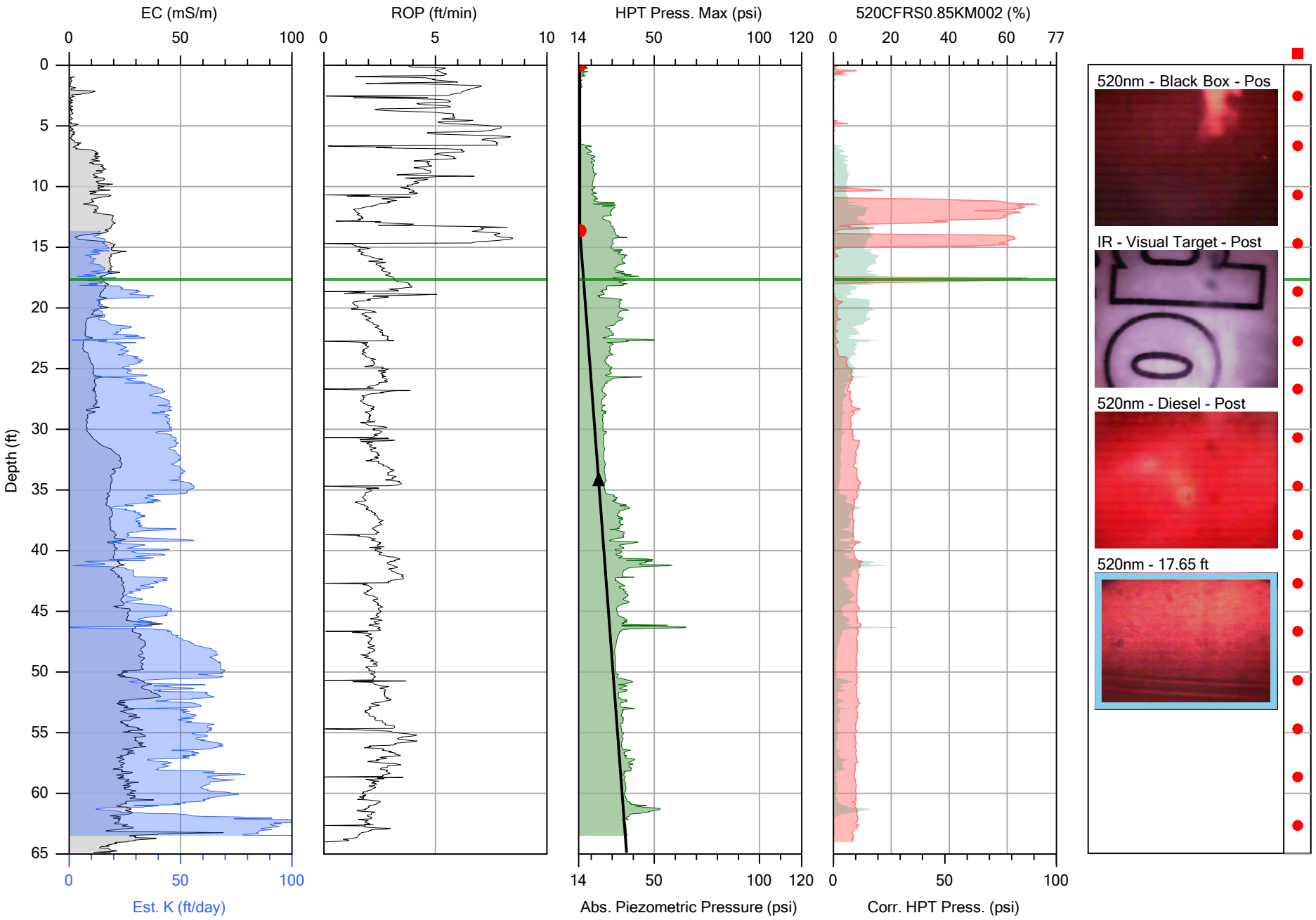


			File: SB-LIF-18B.OIHP
Company: S2C2	Operator: RMR	Date: 8/19/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

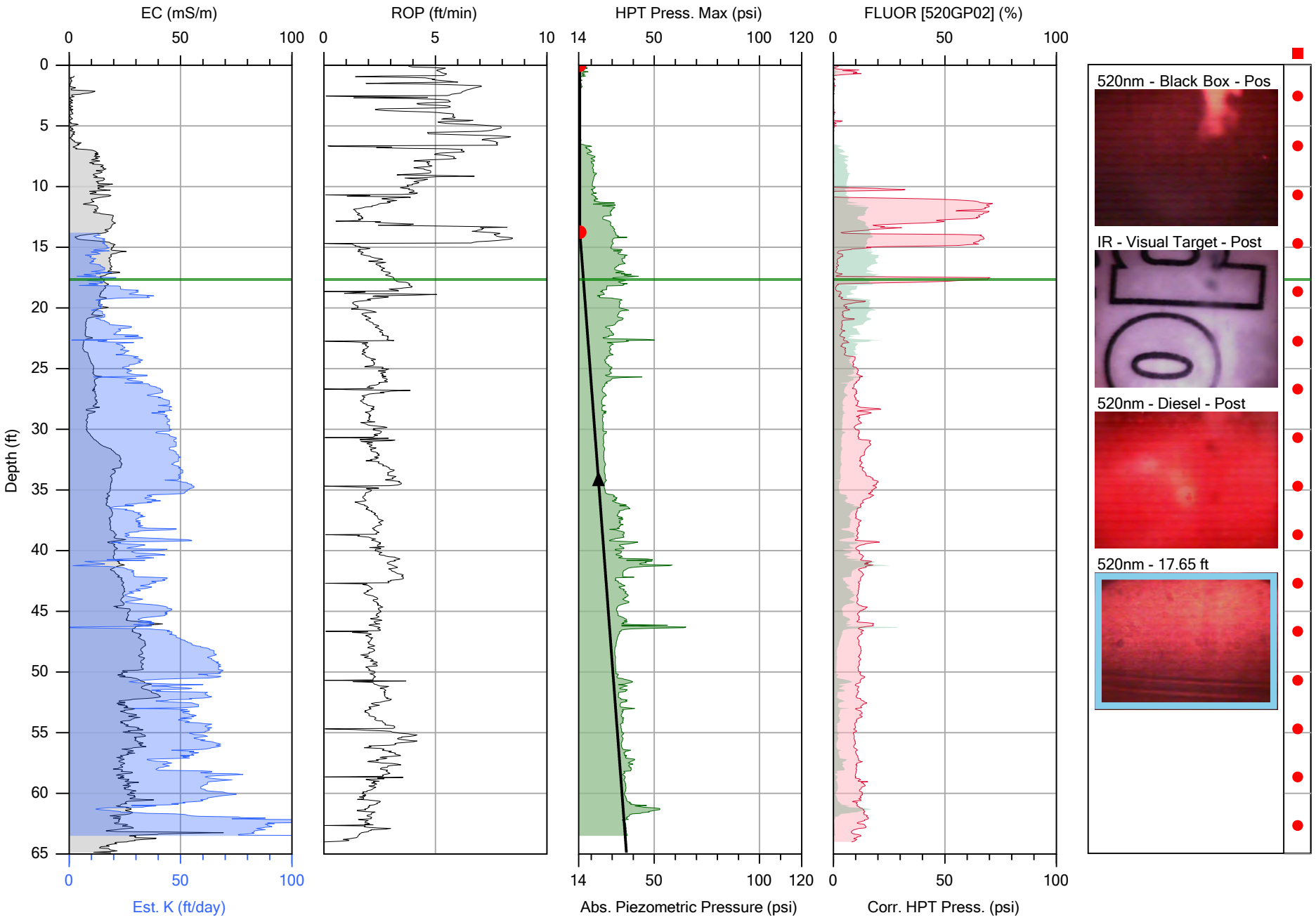


S2 C2

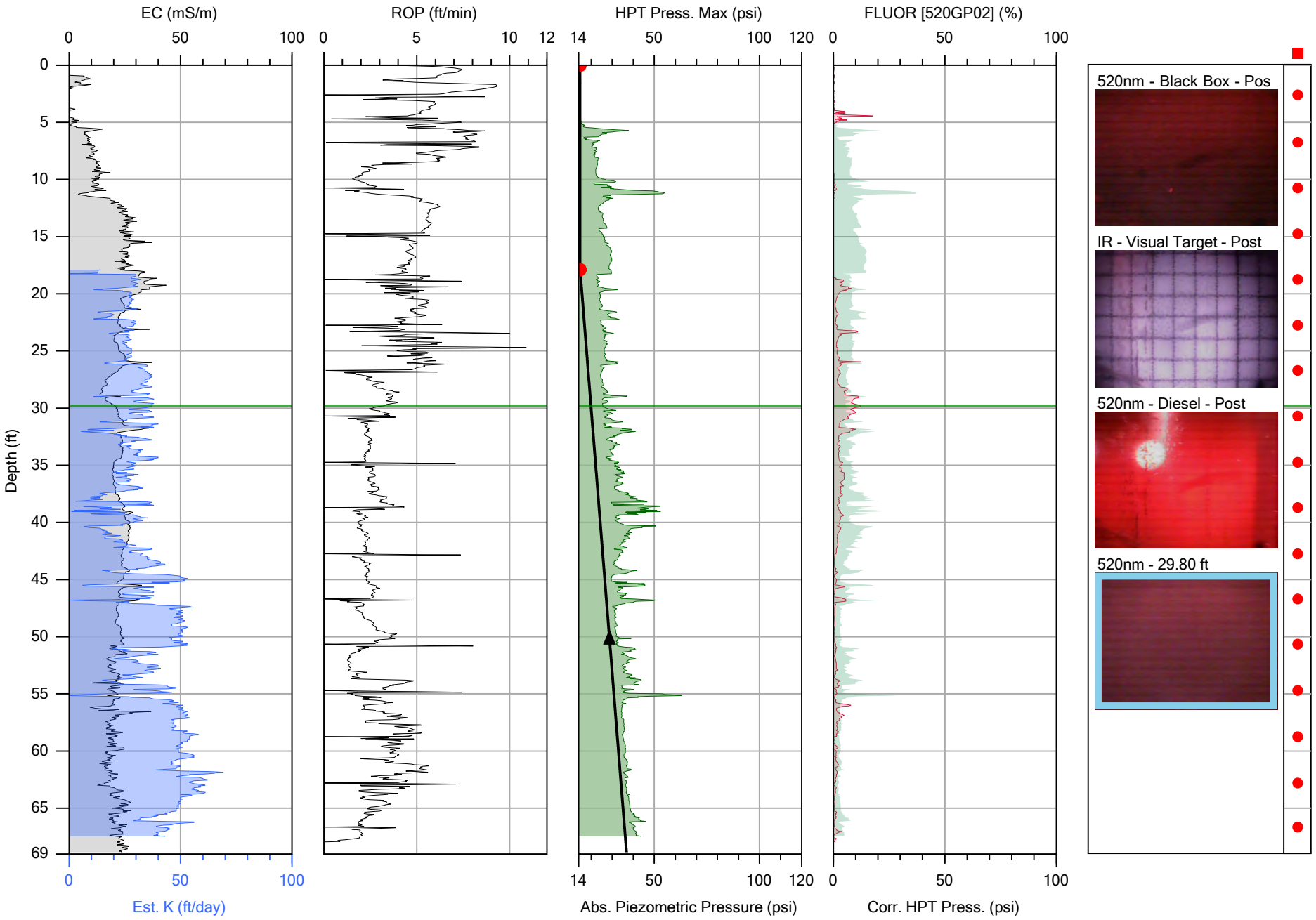
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Company: S2C2	Operator: RMR	Date: 8/18/2022
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY



			File: SB-LIF-19.OIHP
Company: S2C2	Operator: RMR	Date: 8/23/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

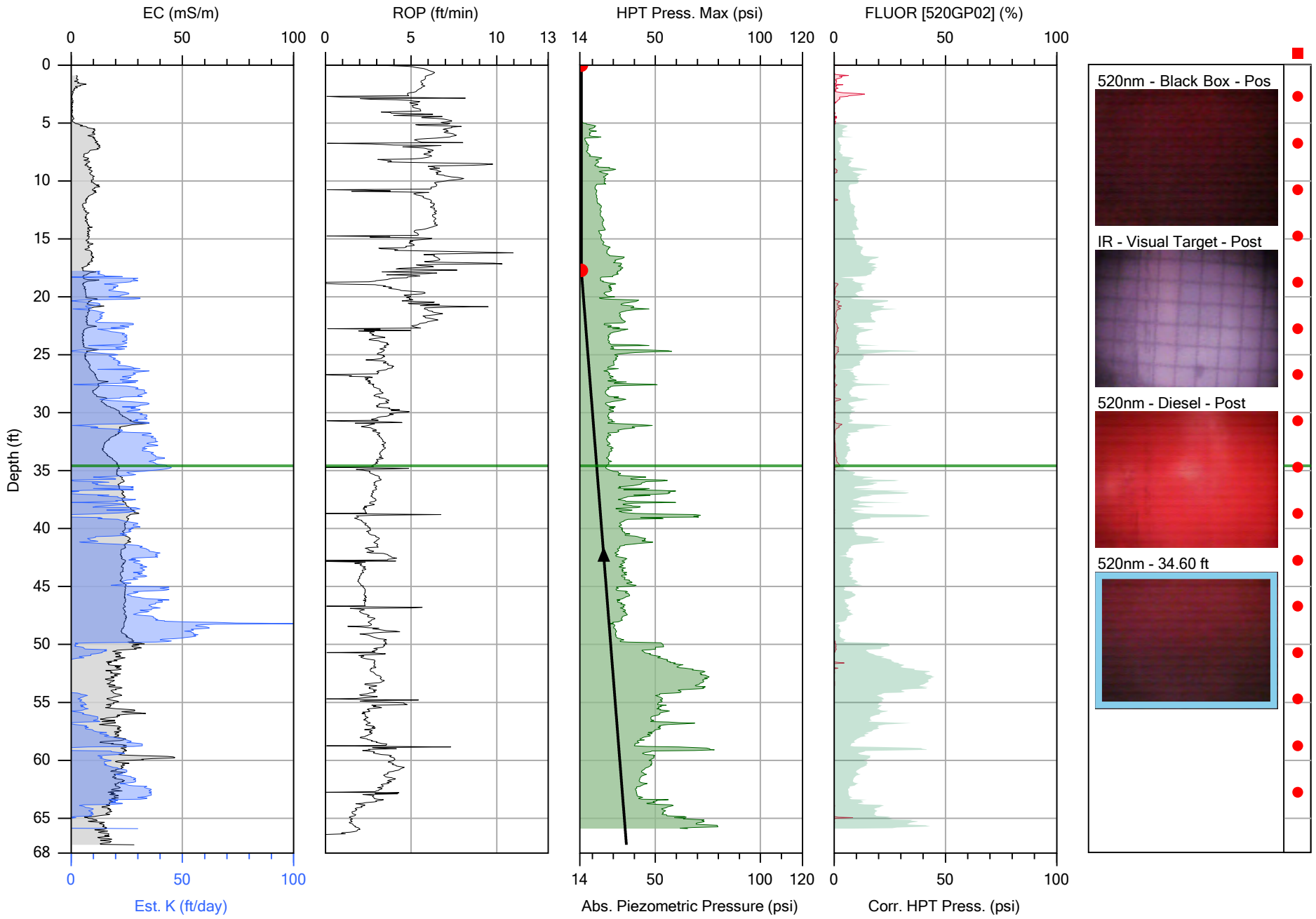


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Company: S2C2	Operator: RMR	Date: 8/23/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

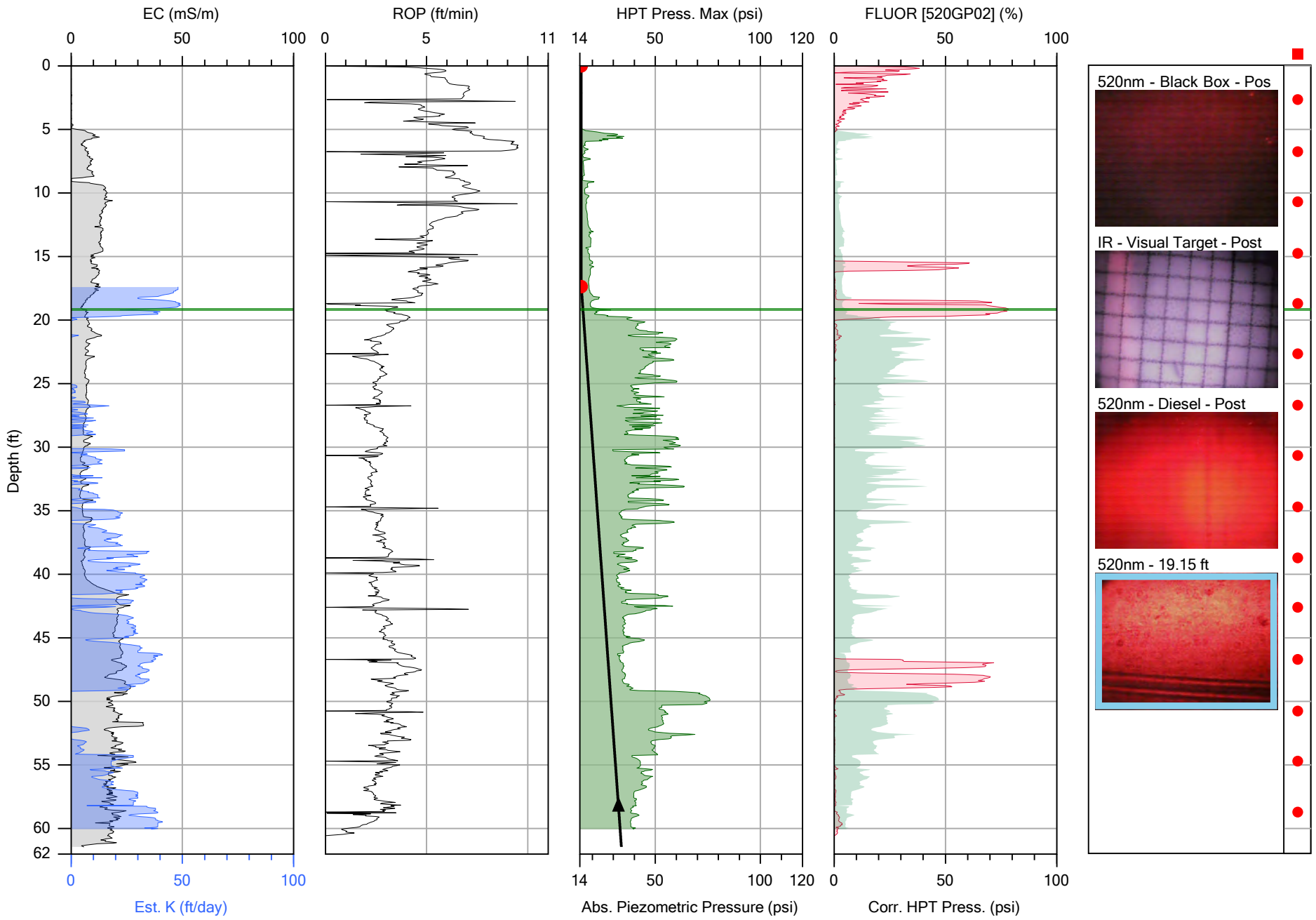


S2C2

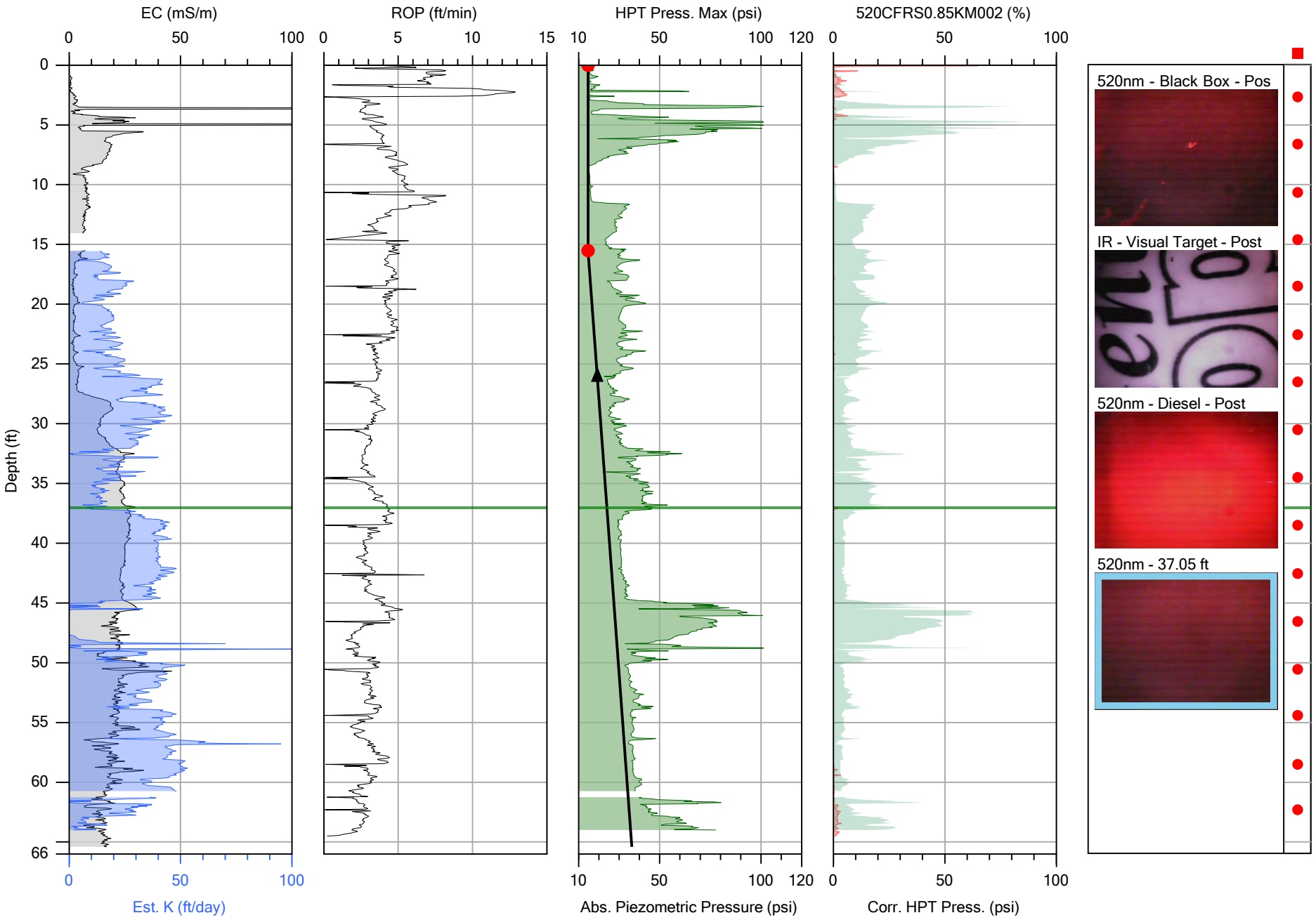
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Company: S2C2		Operator: TH	Date: 8/31/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



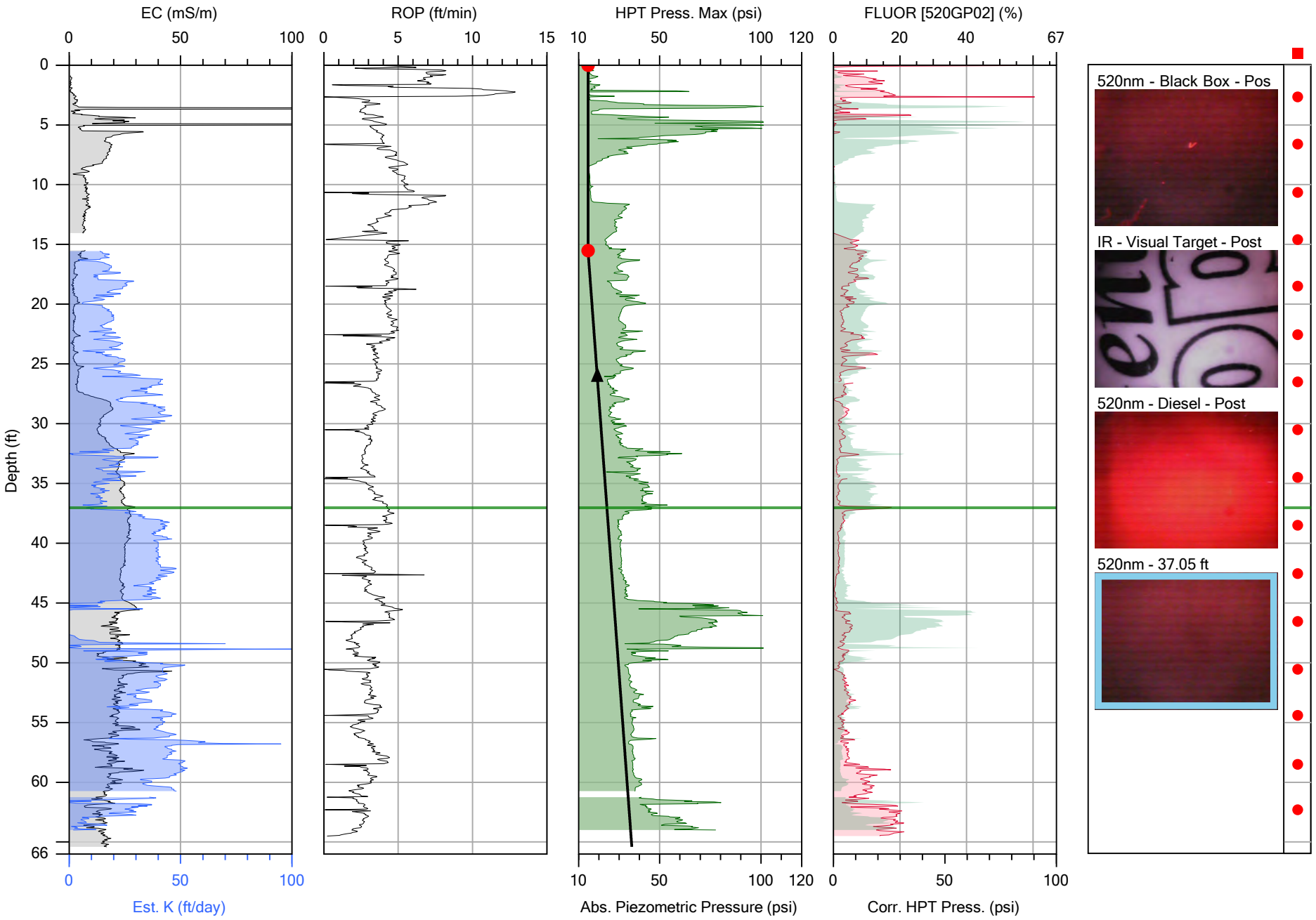
			File: SB-LIF-21.OIHP
Company: S2C2	Operator: TH		Date: 8/30/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



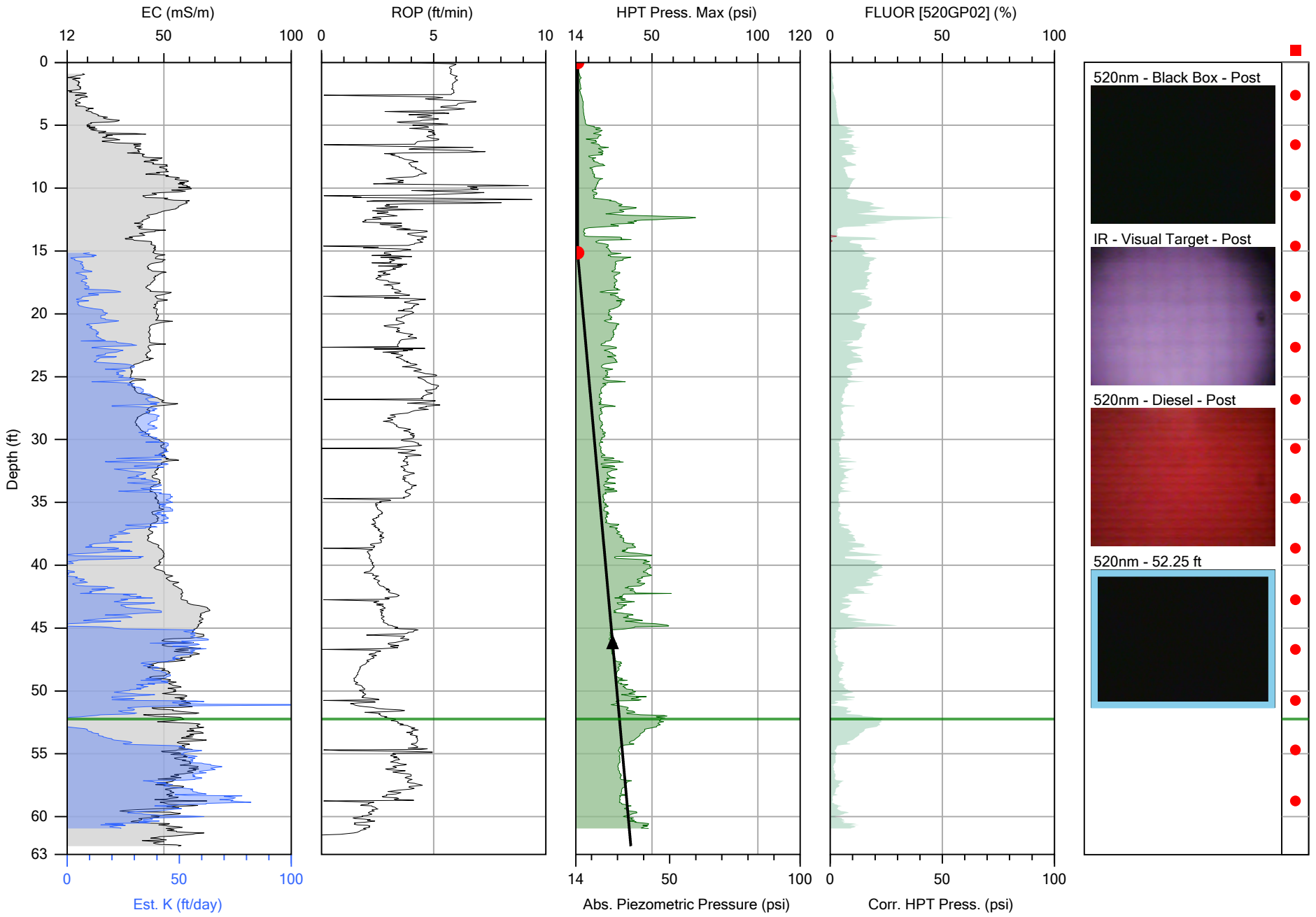
			File: SB-LIF-22.OIHP
Company: S2C2	Operator: TH		Date: 8/30/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



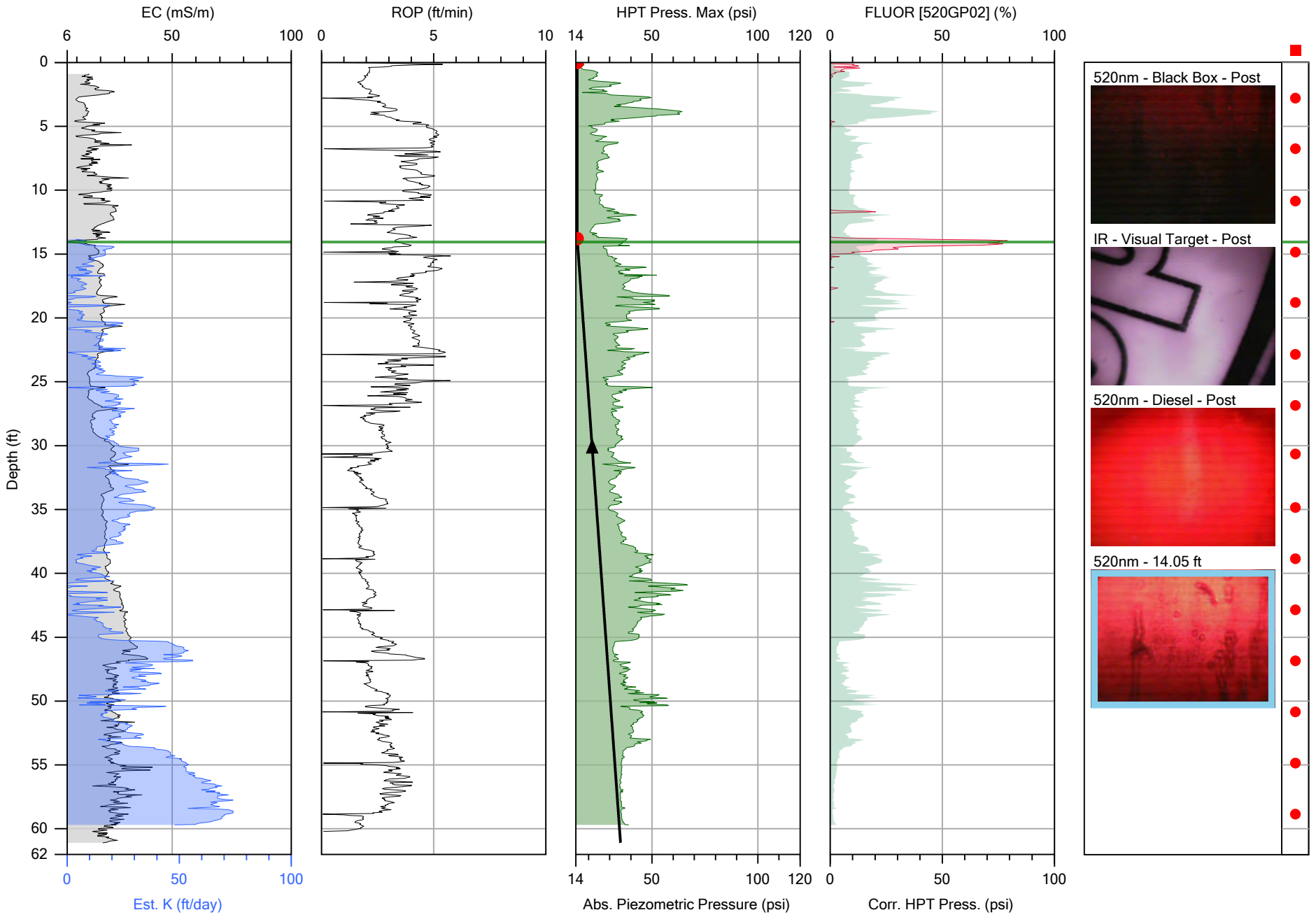
			File: SB-LIF-23M2.OIHP
Company: S2C2	Operator: RMR		Date: 8/26/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



			File: SB-LIF-23M2.OIHP
Company: S2C2		Operator: RMR	Date: 8/26/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY

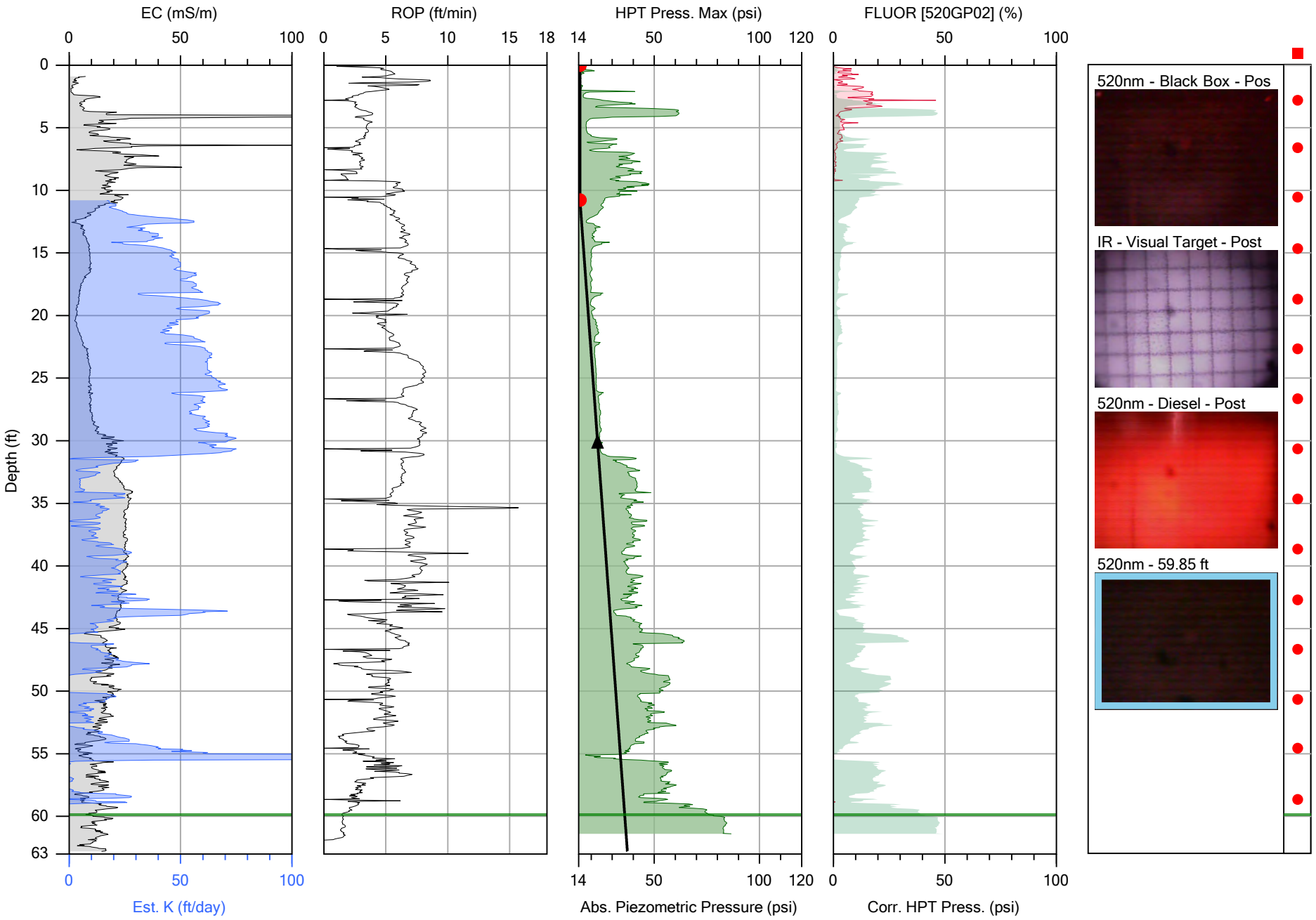


			File: SB-LIF-24.OIHP
Company: S2C2		Operator: TH	Date: 9/7/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY

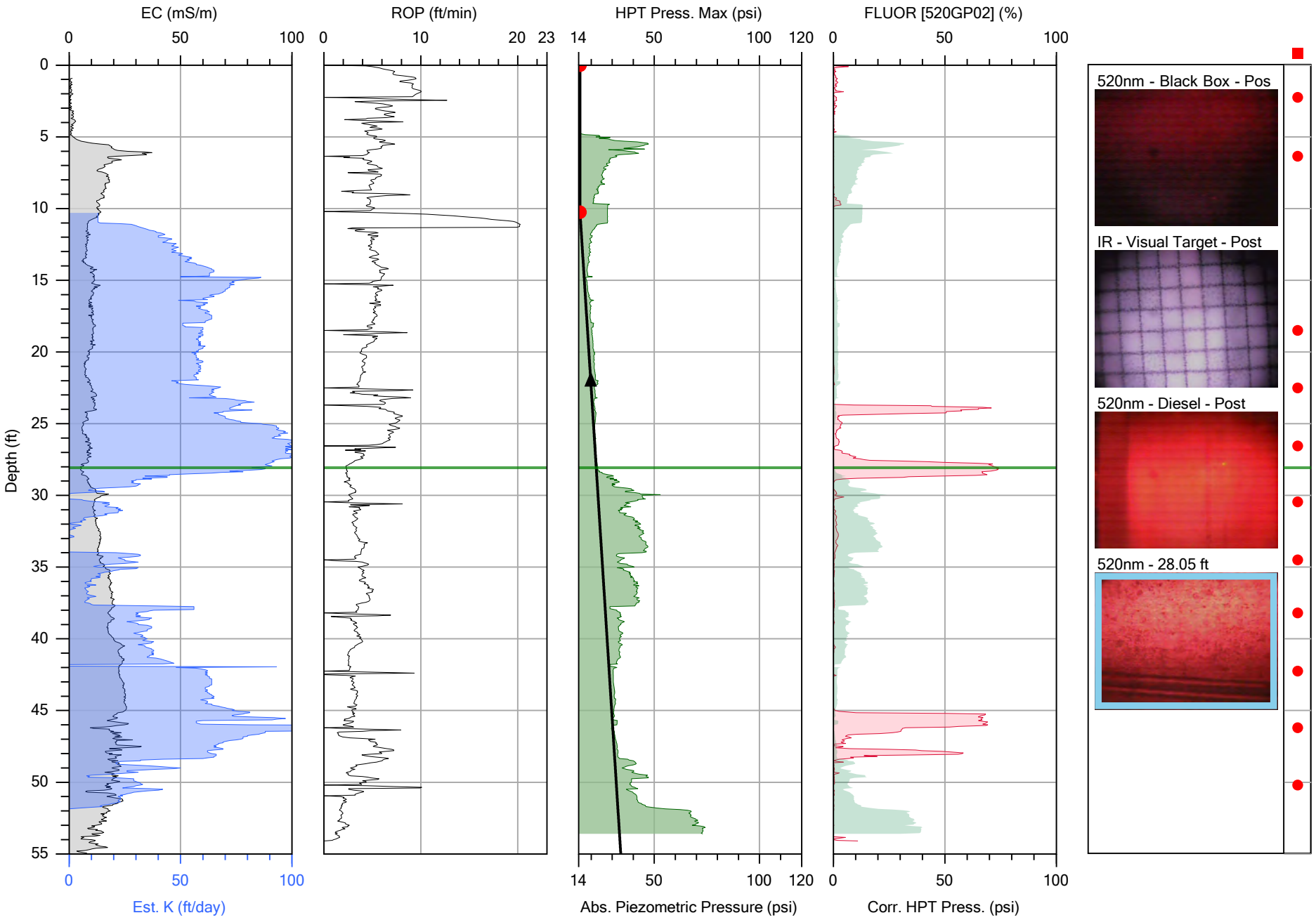


S2C2

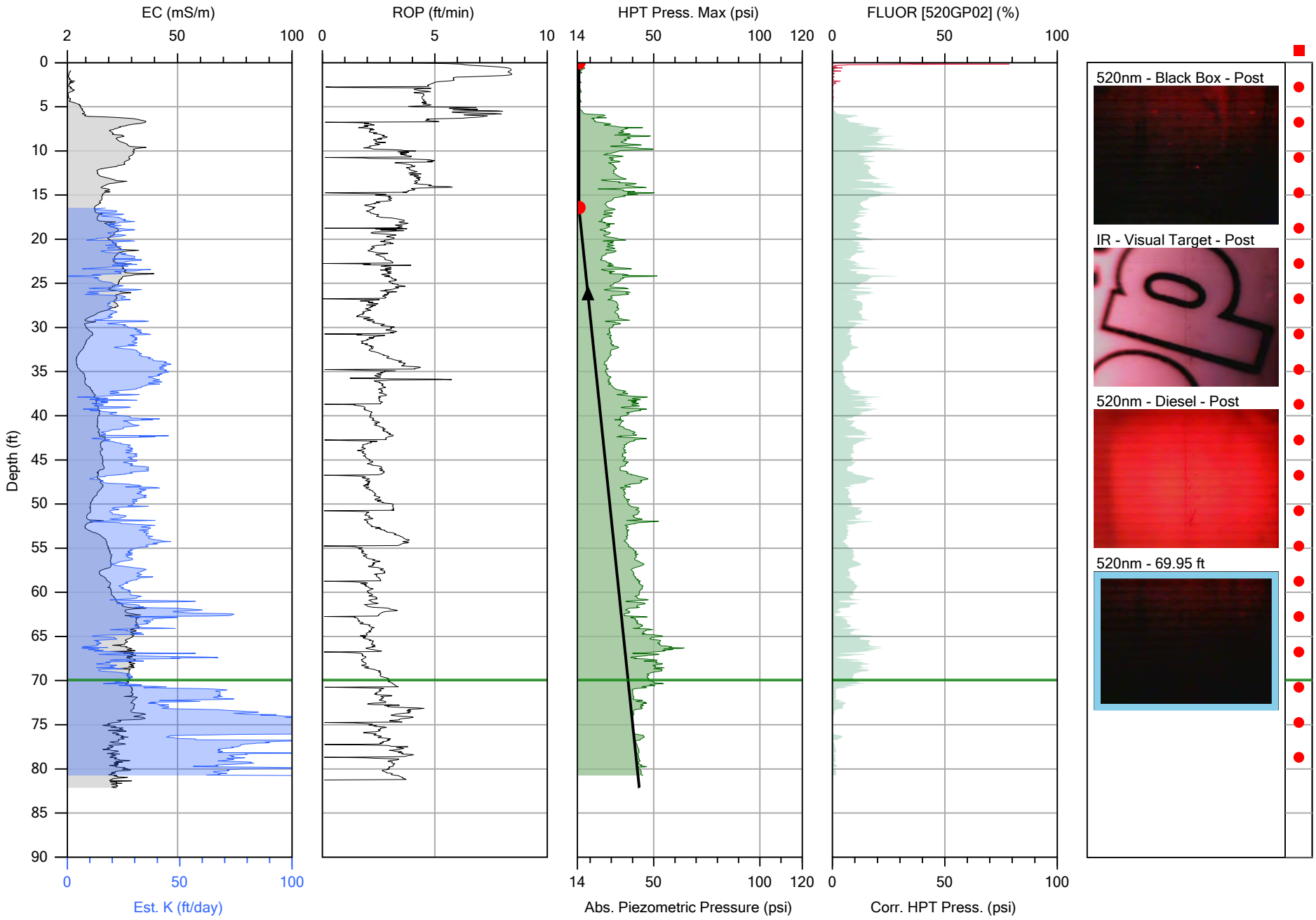
			File: SB-LIF-24A.OIHP
Company: S2C2		Operator: MR	Date: 9/14/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



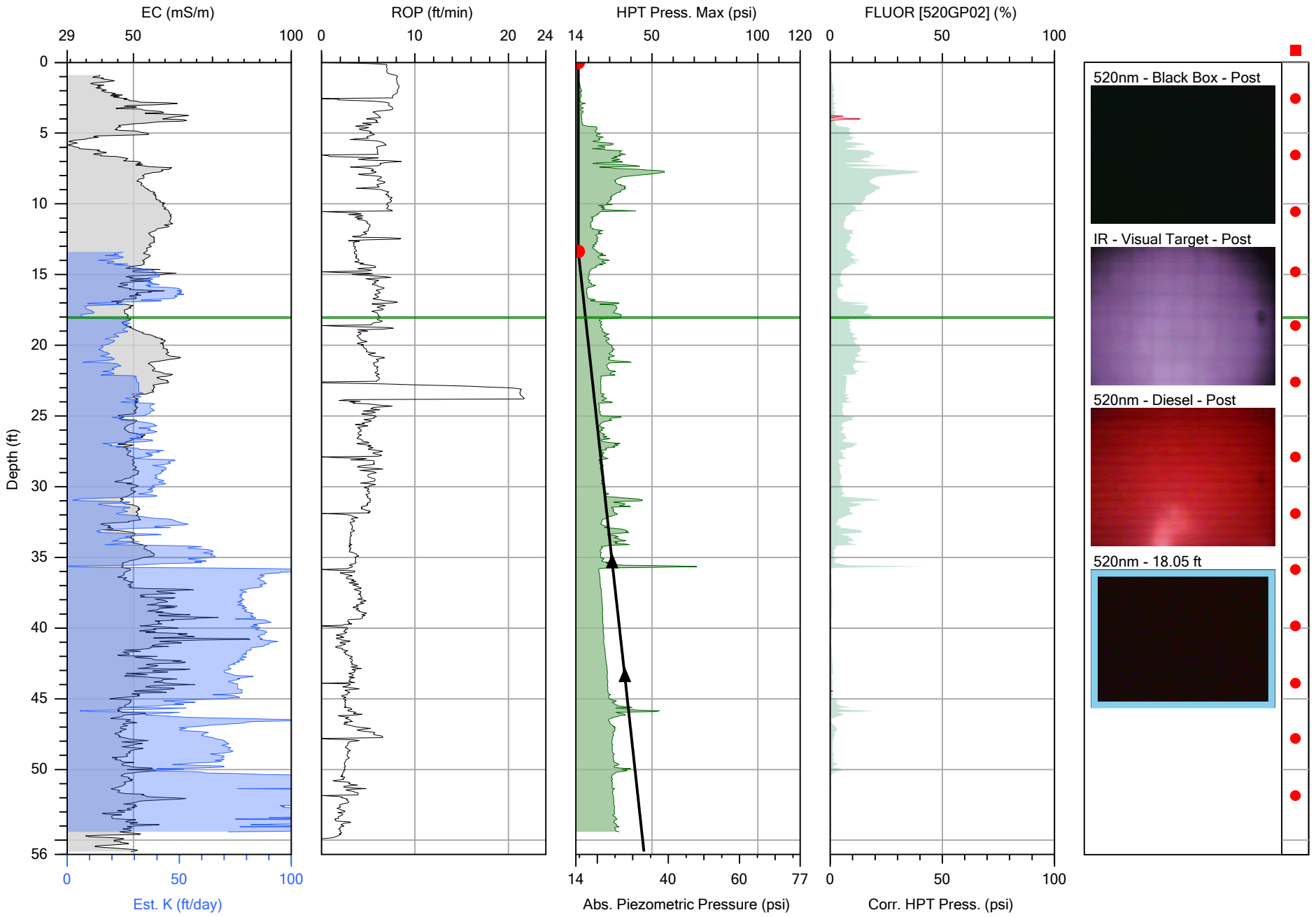
			File: SB-LIF-25M.OIHP
Company: S2C2	Operator: TH		Date: 9/1/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



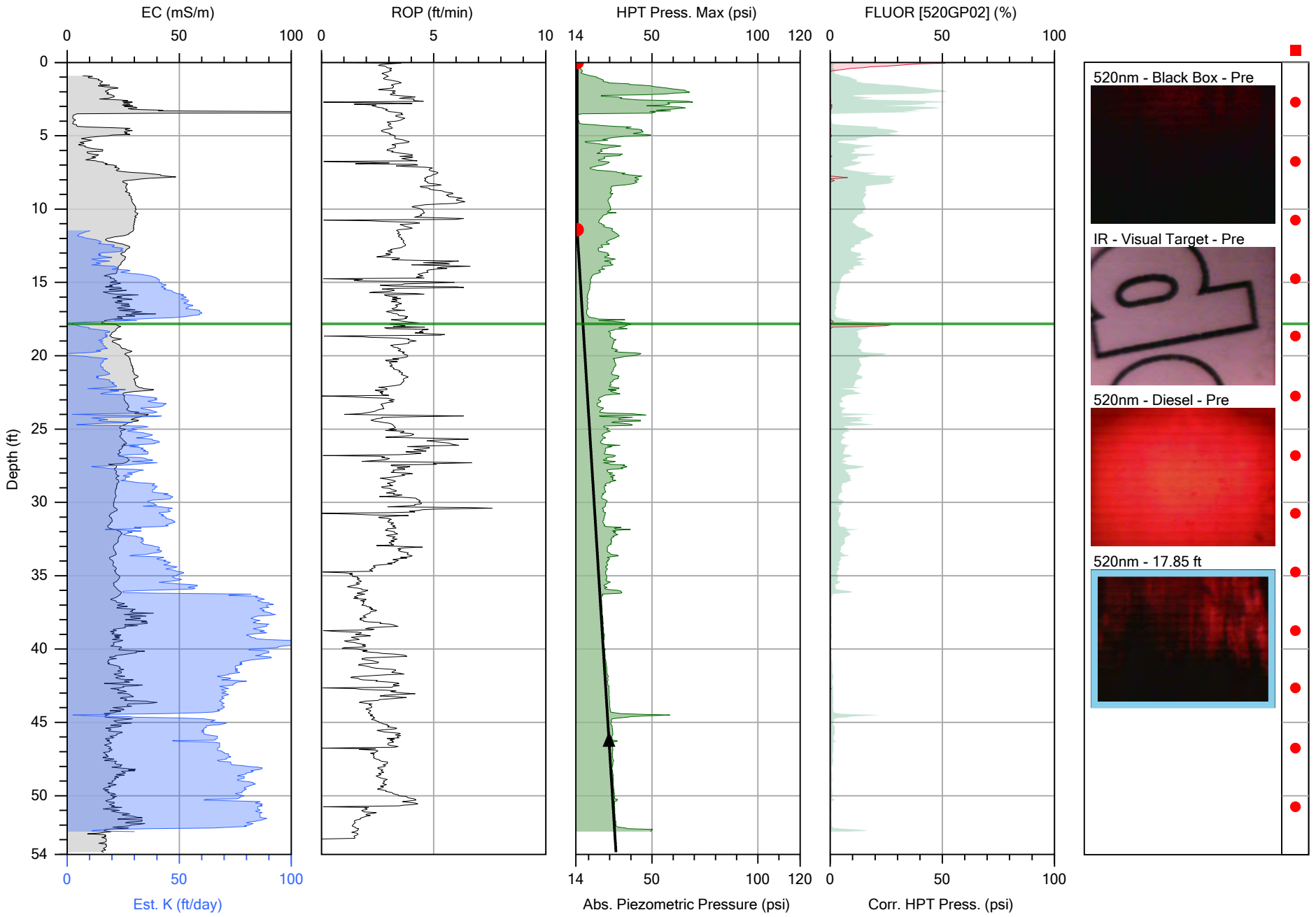
			File: SB-LIF-26.OIHP
Company: S2C2	Operator: TH	Date: 8/29/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	



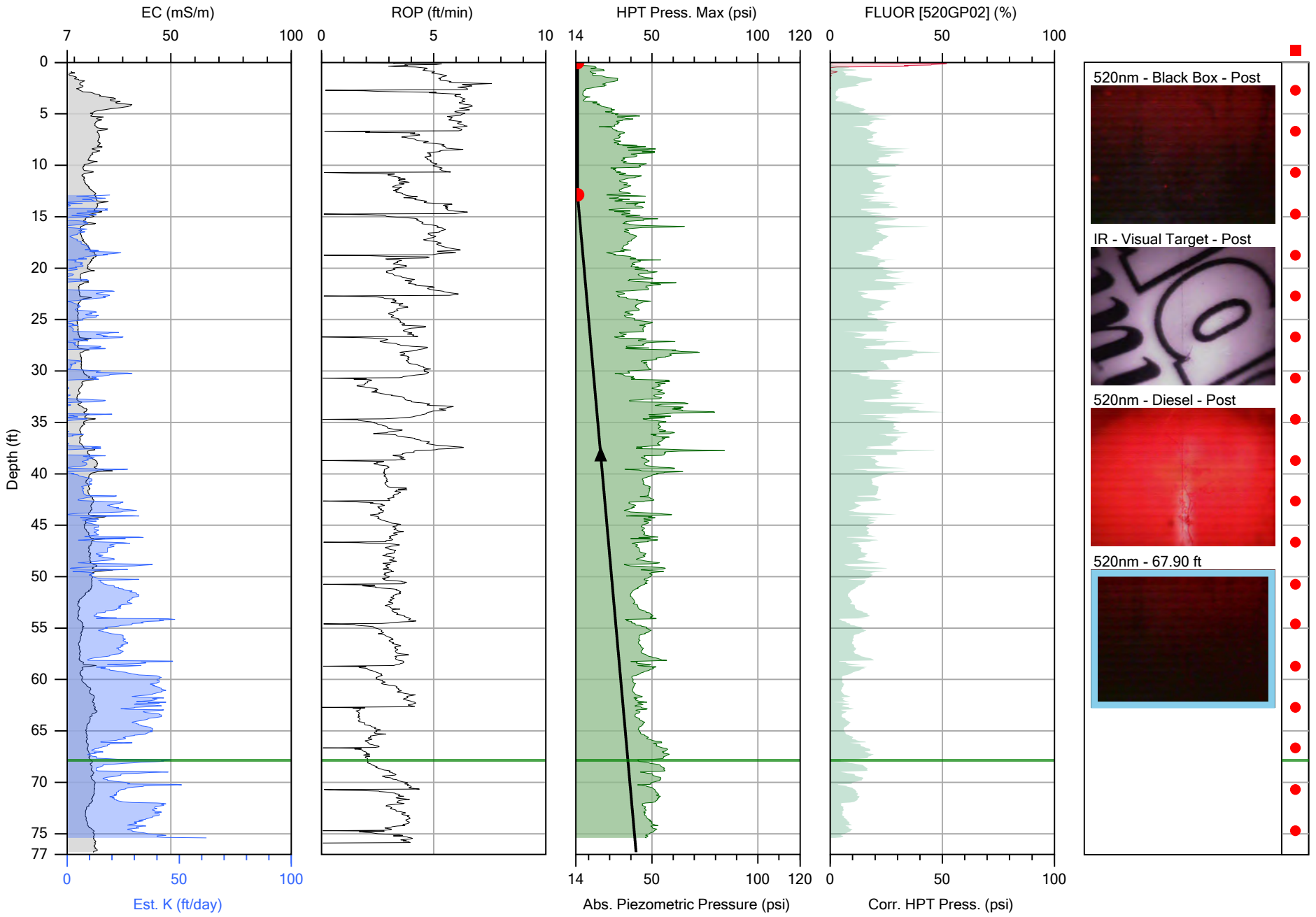
			File: SB-LIF-27.OIHP
Company: S2C2		Operator: MR	Date: 9/15/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



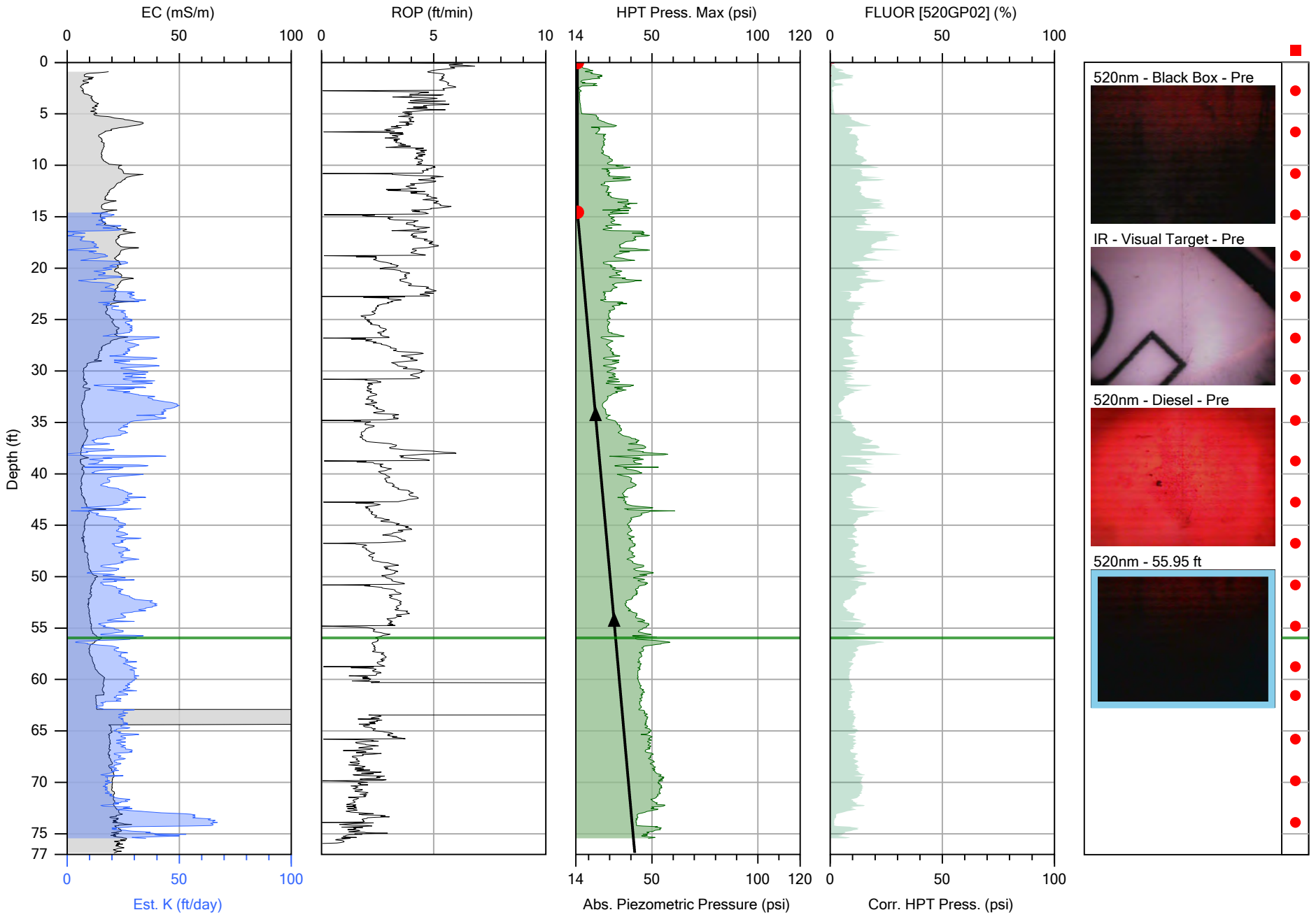
			File: SB-LIF-C1.OIHP
Company: S2C2		Operator: TH	Date: 9/7/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY



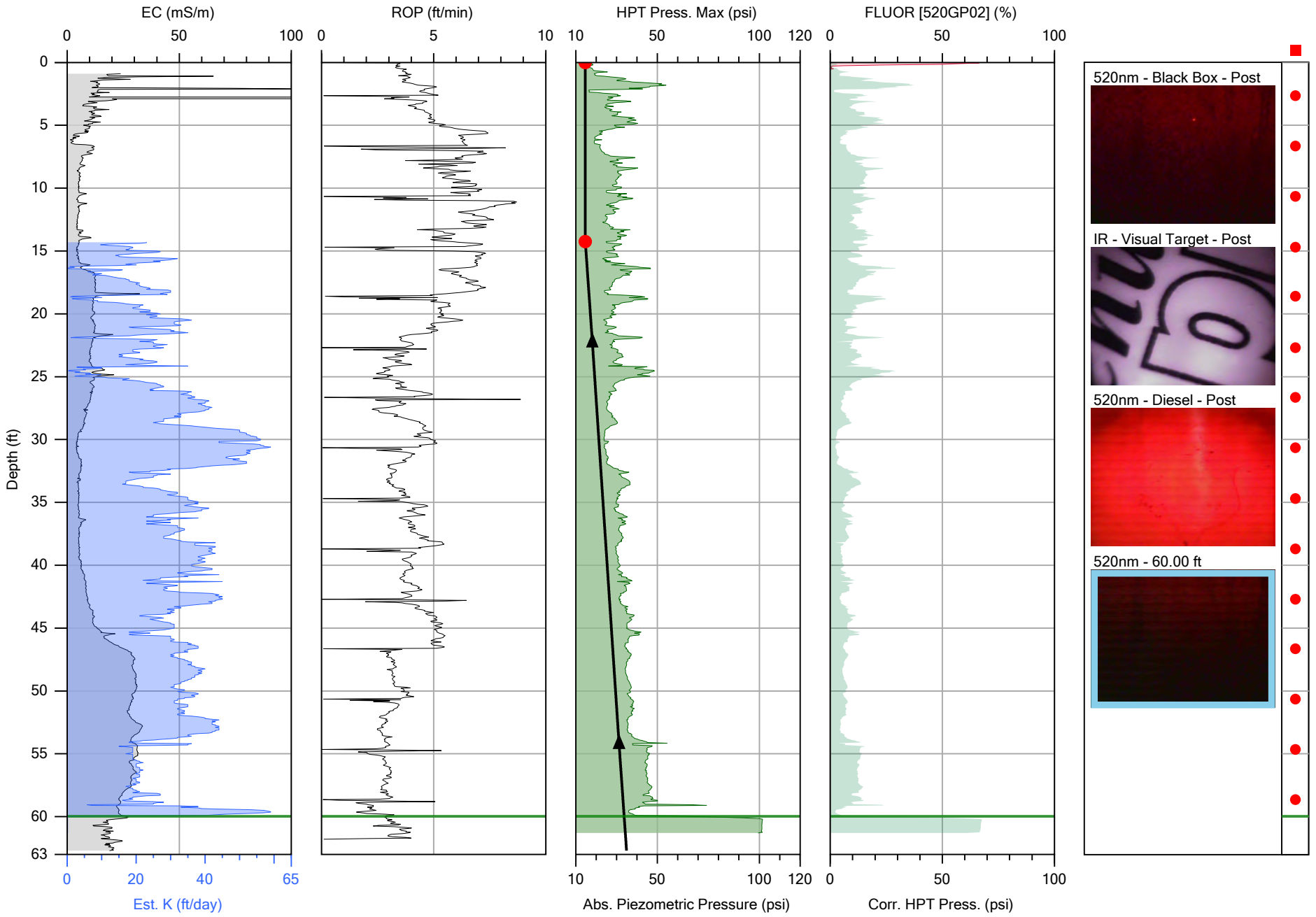
			File: SB-LIF-C1A.OIHP
Company: S2C2	Operator: MR	Date: 9/14/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	



			File: SB-LIF-C2.OIHP
Company: S2C2	Operator: MR		Date: 9/15/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY

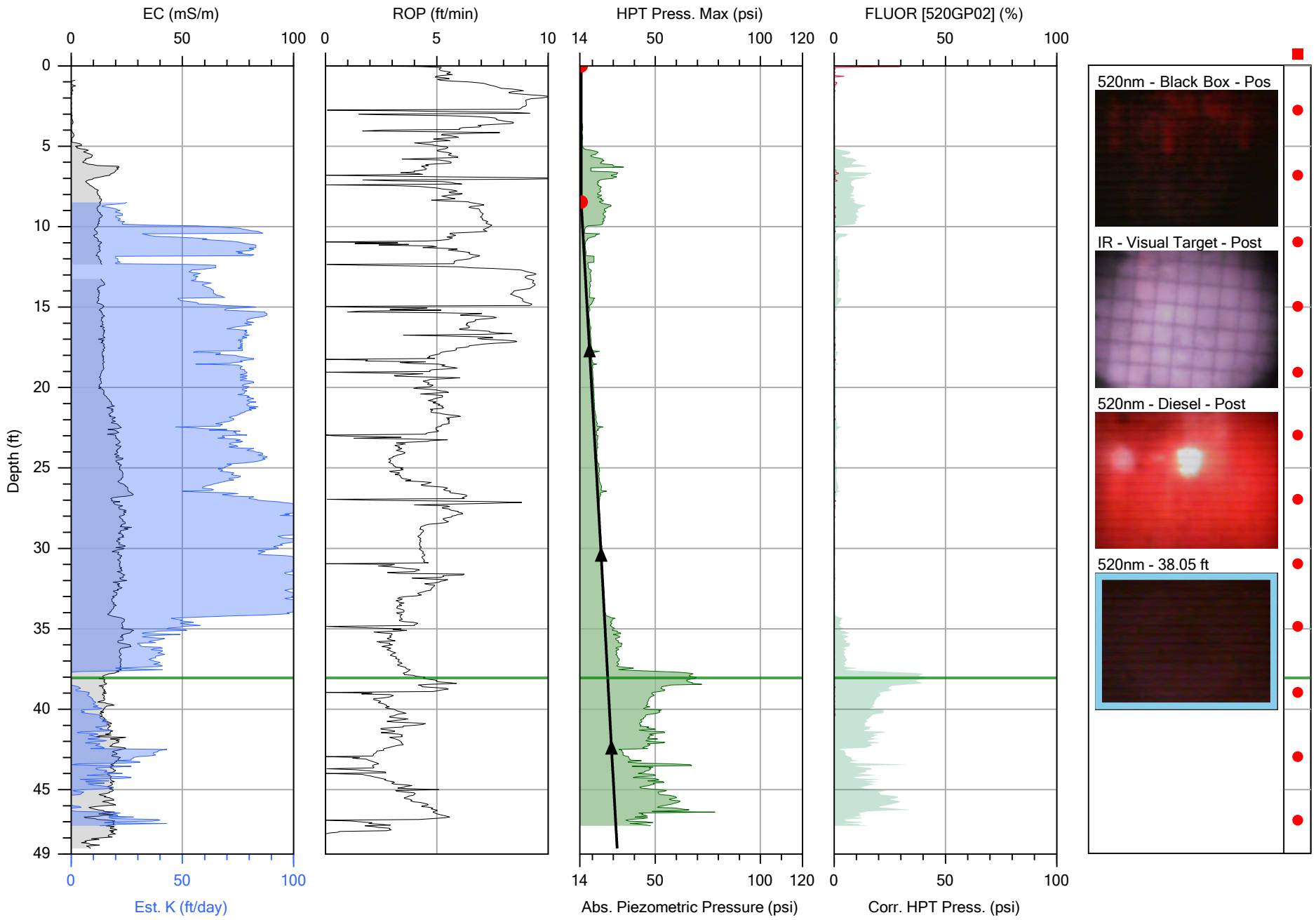


			File: SB-LIF-C3 COMBINED.OIHP
Company: S2C2	Operator: MR		Date: 9/15/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY

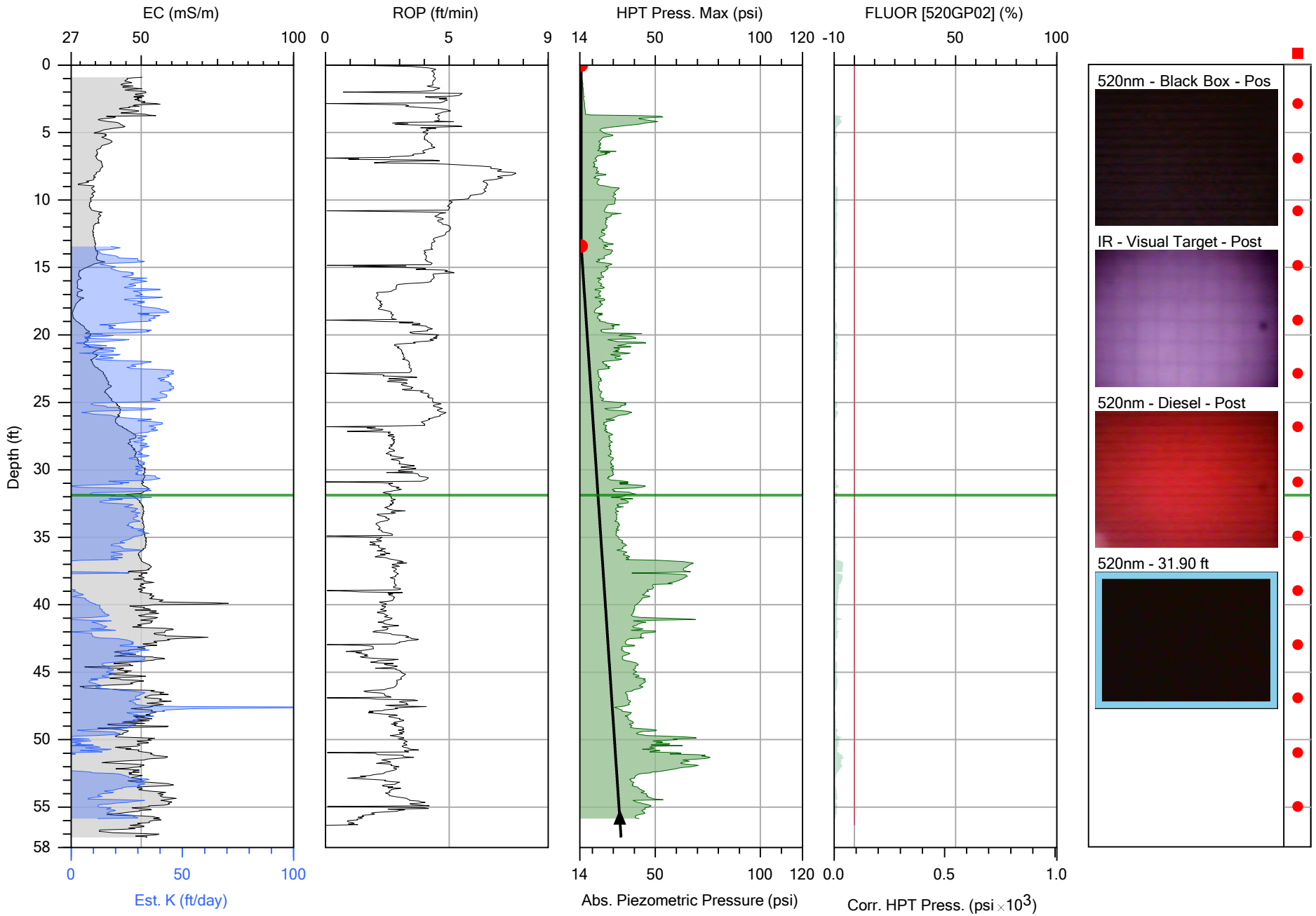


S2C2

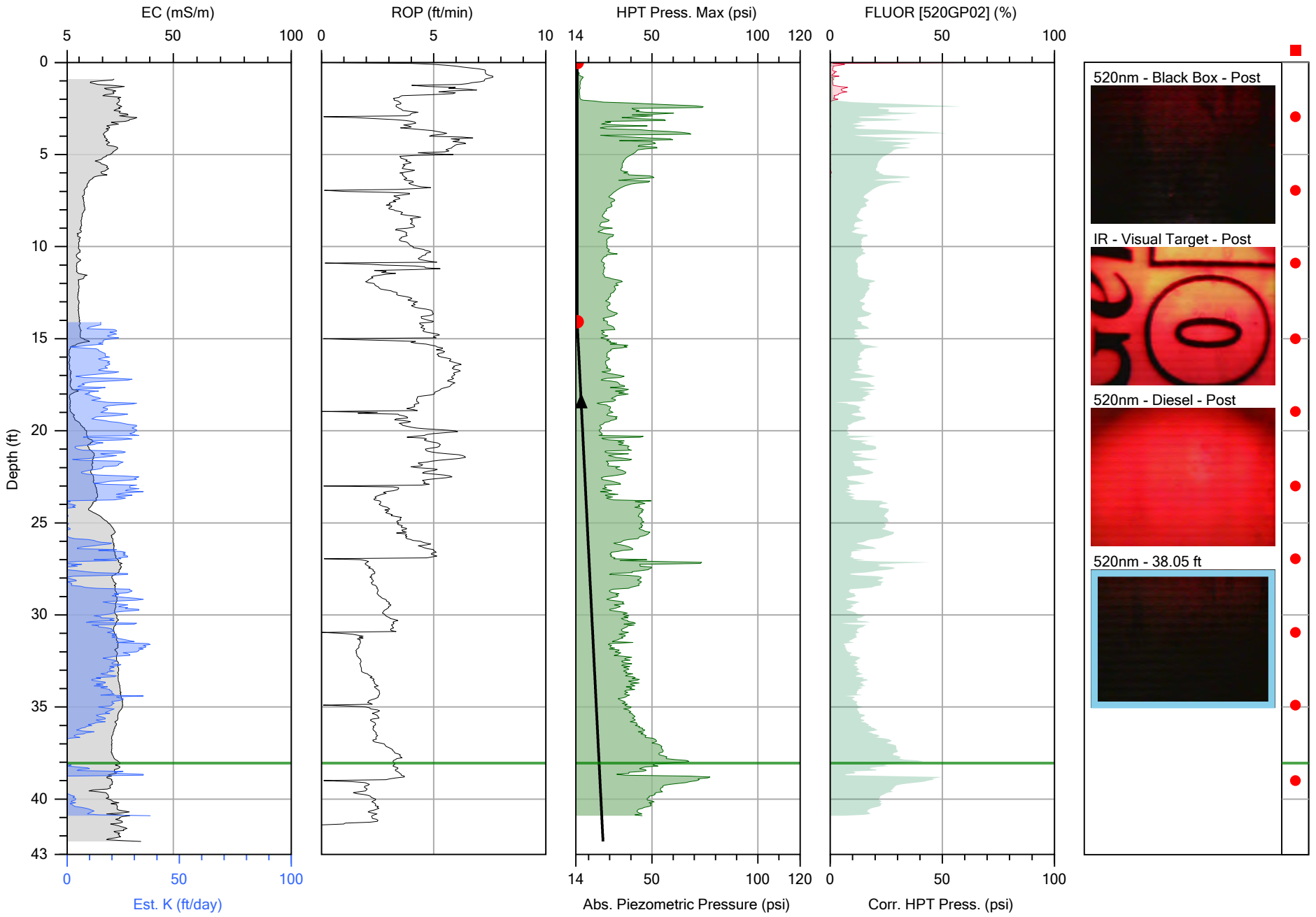
		File: SB-LIF-C4.OIHP
Company: S2C2	Operator: MR	Date: 9/13/2022
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY



			File: SB-LIF-C5M.OIHP
Company: S2C2	Operator: TH	Date: 9/1/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	

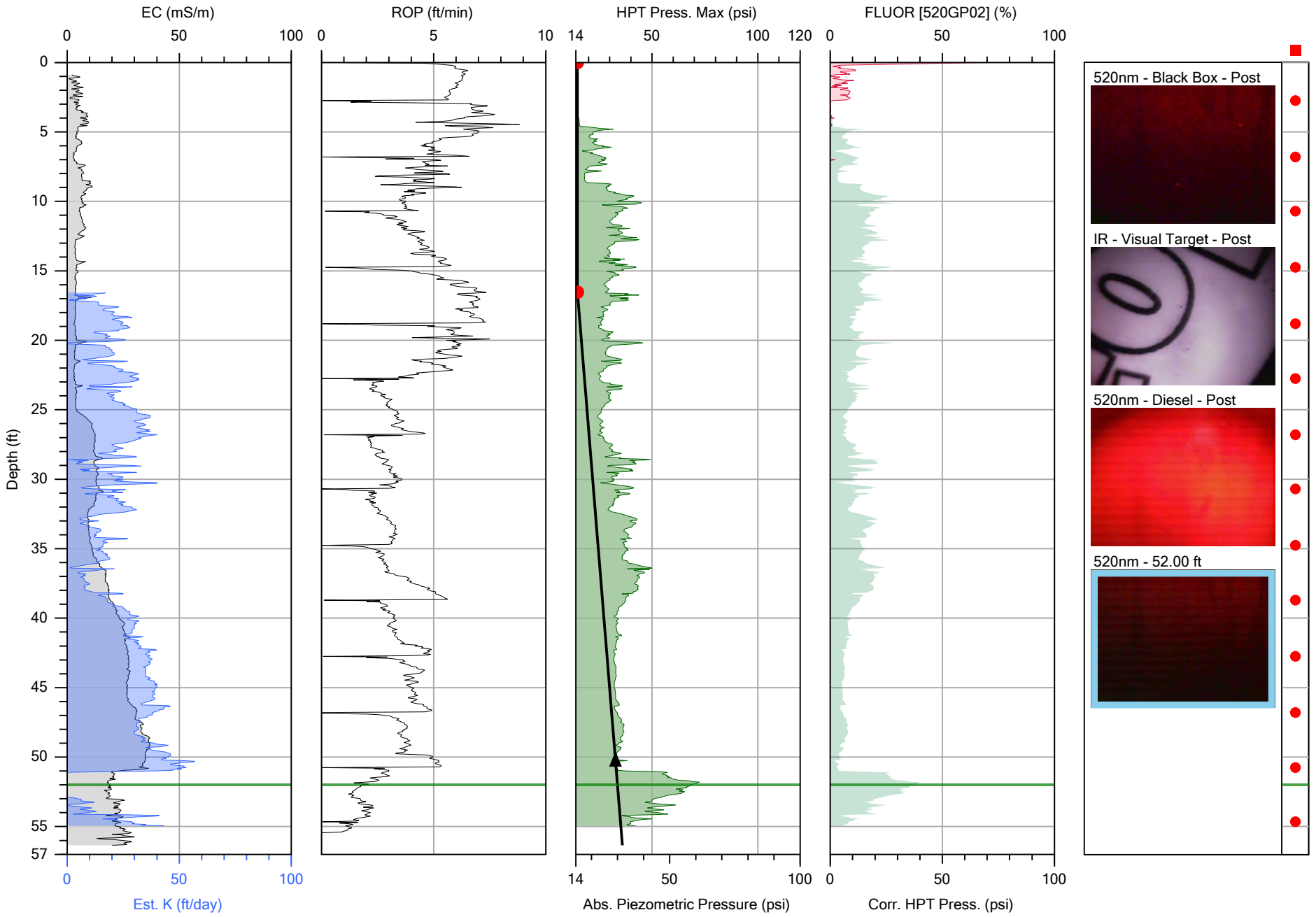


			File: SB-LIF-C6B.OIHP
Company: S2C2	Operator: TH		Date: 9/7/2022
Project ID: GCL PDI	Client: Parratt-Wolff		Location: Sidney, NY



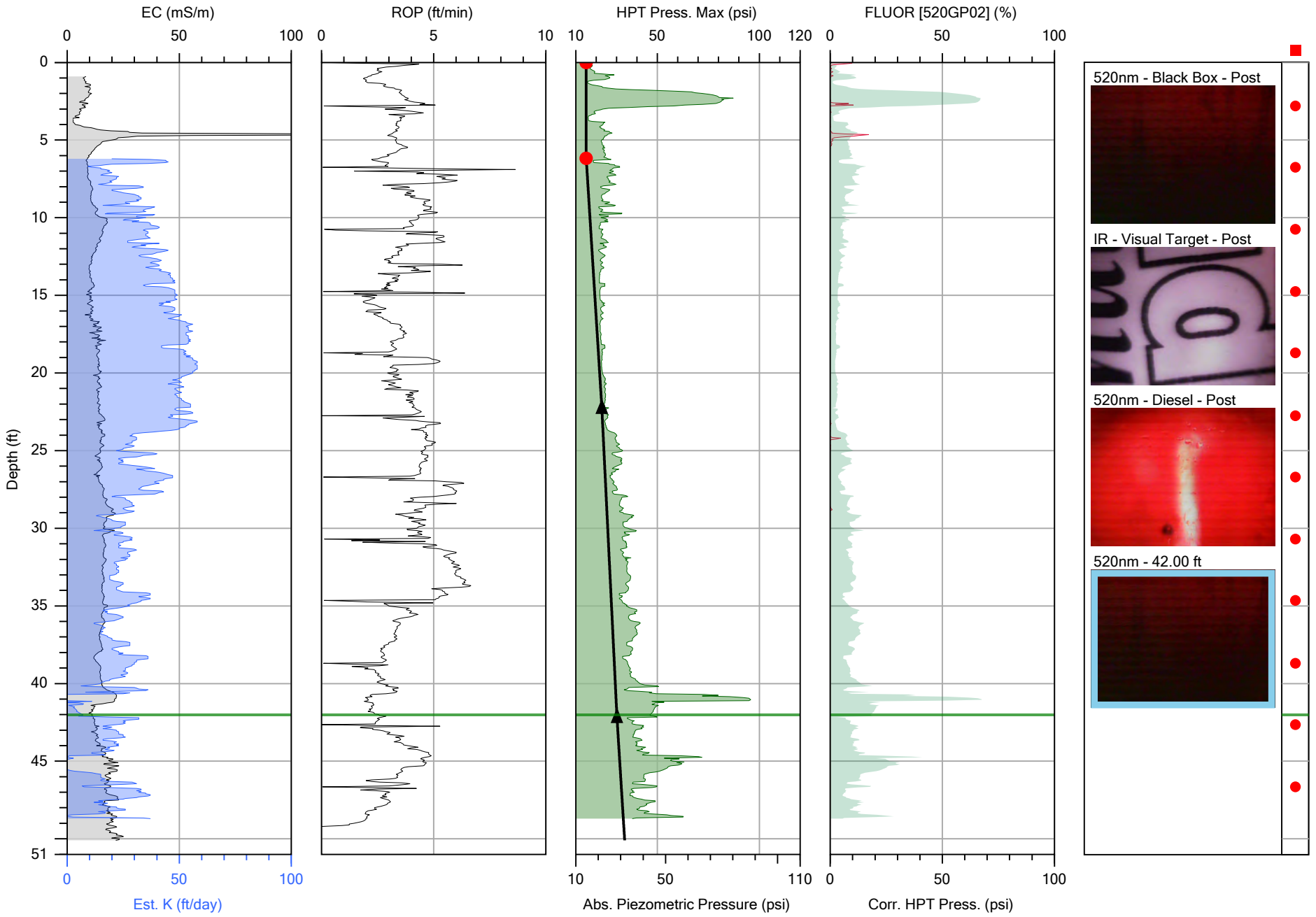
S2C2

		File: SB-LIF-C6A.OIHP
Company: S2C2	Operator: MR	Date: 9/14/2022
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY

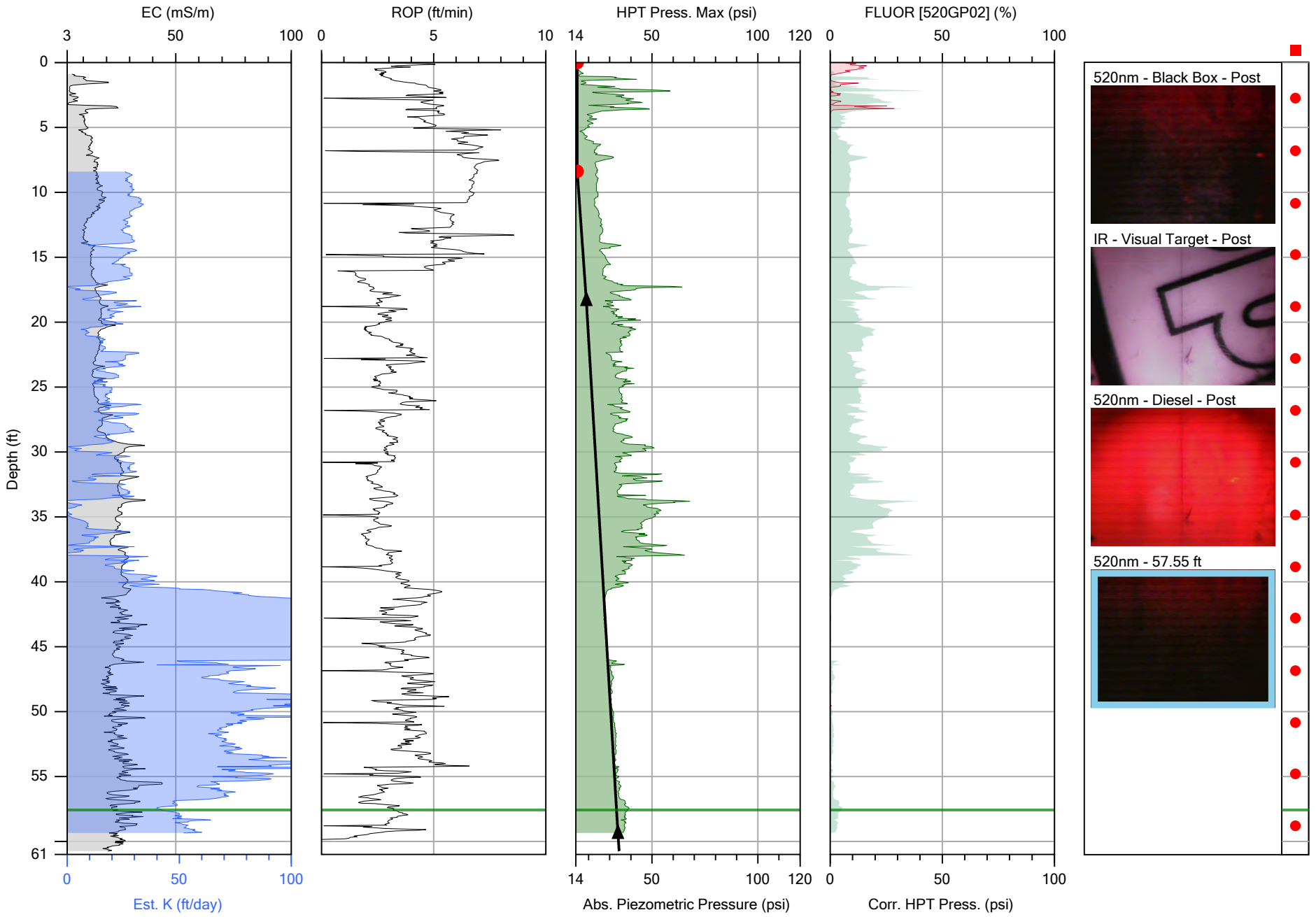


S2C2

		File: SB-LIF-C7.OIHP
Company: S2C2	Operator: MR	Date: 9/13/2022
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY



			File: SB-LIF-C8.OIHP
Company: S2C2	Operator: MR	Date: 9/13/2022	
Project ID: GCL PDI	Client: Parratt-Wolff	Location: Sidney, NY	



			File: SB-LIF-C9.OIHP
Company: S2C2		Operator: MR	Date: 9/14/2022
Project ID: GCL PDI		Client: Parratt-Wolff	Location: Sidney, NY

APPENDIX D

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-01

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		SM	SILTY SAND (SM); dark brown (10yr 3/3); mostly SAND, fine; some SILT.
5		SW	Well-graded SAND (SW); dark brown (10yr 3/3); mostly SAND, mostly fine, some medium, trace coarse; few SILT; trace GRAVEL, fine, subrounded.
10			
15			
20		SW	Well-graded SAND (SW); black (10yr 2/1); mostly SAND, mostly fine, little medium, few coarse; trace GRAVEL, fine; few wood chips; odor and staining present.
25		ML	SILT (ML); brown (10yr 5/3); mostly SILT.
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:15 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-01

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			SILT (ML); brown (10yr 5/3); mostly SILT. *(continued)*
40			
45			
50		SW	Well-graded SAND (SW); light brown (7.5yr 6/3); mostly SAND, mostly fine, few coarse, trace medium; little GRAVEL, fine, rounded; little SILT.
55			
60		SM	SILTY SAND with GRAVEL (SM); light brown (7.5yr 6/3); mostly SAND, mostly fine, trace coarse; some SILT; little GRAVEL, fine to coarse, mostly subrounded.
65			
70			
75		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); reddish brown; intensely weathered.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:15 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-01

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			
			(MUDSTONE/SILTSTONE); reddish brown; intensely weathered. *(continued)*
80		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); reddish brown; intensely weathered; intensely fractured; horizontal fracturing along bedding plane.
85		SANDSTONE	(SANDSTONE); fine sand; massive to laminated; medium gray; moderately weathered; intensely fractured; horizontal fracturing along bedding plane.
90			
95		SANDSTONE	(SANDSTONE); massive; reddish brown; moderately fractured; horizontal fracturing along bedding plane.
100		MUDSTONE	(MUDSTONE); reddish brown; intensely fractured.
105			
110		SANDSTONE with minor interbedded MUDSTONE/SILTSTONE	(SANDSTONE with minor interbedded MUDSTONE/SILTSTONE); reddish brown; slightly fractured to intensely fractured; horizontal fracturing along bedding plane; sub-vertical fractures from ~132-135ft bgs.
115			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:15 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-01

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			(SANDSTONE with minor interbedded MUDSTONE/SILTSTONE); reddish brown; slightly fractured to intensely fractured; horizontal fracturing along bedding plane; sub-vertical fractures from ~132-135ft bgs. *(continued)*
120			
125			
130			
135			
140			
145			
150			
155			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:15 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-01

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(SANDSTONE with minor interbedded MUDSTONE/SILTSTONE); reddish brown; slightly fractured to intensely fractured; horizontal fracturing along bedding plane; sub-vertical fractures from ~132-135ft bgs. *(continued)*
160			
			Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:15 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-02

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		ML	SANDY SILT (ML); dark brown (10yr 3/3); mostly SILT; some organics; few SAND, fine.
5		ML	SANDY SILT (ML); pale brown (10yr 6/3); mostly SILT; some SAND, fine.
		SM	SILTY SAND (SM); brown (10yr 5/3); mostly SAND, mostly fine, some to little coarse; some SILT; trace GRAVEL, fine.
10		ML	SILT (ML); very pale brown (10yr 7/3); mostly SILT.
15		SW	Well-graded SAND (SW); very dark gray (10yr 3/1); mostly SAND, mostly coarse, some fine, little medium; NAPL observed.
20		ML	SILT (ML); light yellowish brown (10yr 6/4); mostly SILT.
25		SP	Poorly-graded SAND (SP); black (10yr 2/1); mostly SAND, fine; NAPL observed.
		ML	SILT (ML); grayish brown (10yr 5/2); mostly SILT.
30		GP	SANDY GRAVEL with SILT (GP); grayish brown (10yr 5/2); mostly GRAVEL, mostly fine, little coarse, rounded to subrounded; some SAND, fine; little SILT.
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-02

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			
			SANDY GRAVEL with SILT (GP); grayish brown (10yr 5/2); mostly GRAVEL, mostly fine, little coarse, rounded to subrounded; some SAND, fine; little SILT. *(continued)*
40		GP	SANDY GRAVEL (GP); grayish brown (10yr 5/2); mostly GRAVEL, fine, rounded; some SAND, mostly coarse, some medium.
		SW	Well-graded SAND (SW); grayish brown (10yr 5/2); mostly SAND, mostly fine, some coarse.
45		GP	SANDY GRAVEL with SILT (GP); grayish brown (10yr 5/2); mostly GRAVEL, mostly fine, little coarse, rounded to subrounded; some SAND, fine; little SILT.
		ML	SILT with GRAVEL (ML); reddish brown (2.5yr 5/4); mostly SILT; some GRAVEL, mostly fine, some to little coarse; glacial material.
50			
55			
60			
65			
70			
75			

(Continued Next Page)

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50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-02

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SILT with GRAVEL (ML); reddish brown (2.5yr 5/4); mostly SILT; some GRAVEL, mostly fine, some to little coarse; glacial material. *(continued)*
80		SANDSTONE	(SANDSTONE); bluish gray (5b 5/1); fresh to moderately weathered; intensely fractured; horizontal fracturing along bedding plane.
85			
90			
95			
		CONGLOMERATE	(CONGLOMERATE); gray (n5); slightly weathered; intensely fractured; horizontal fracturing along bedding plane.
100		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); laminated; dusky red (5r 3/2); slightly weathered to intensely weathered; intensely fractured; horizontal and uneven fracturing along bedding plane.
		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); laminated; dusky red (5r 3/2); slightly weathered to intensely weathered; intensely fractured; horizontal and uneven fracturing along bedding plane; interbedded grayish red sandstone.
105			
110			
115			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-02

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			
120			(MUDSTONE/SILTSTONE); laminated; dusky red (5r 3/2); slightly weathered to intensely weathered; intensely fractured; horizontal and uneven fracturing along bedding plane; interbedded grayish red sandstone. *(continued)*
125			
130			
135			
140		Interbedded MUDSTONE/SILTSTONE and SANDSTONE	(Interbedded MUDSTONE/SILTSTONE and SANDSTONE); weak red (5r 4/2); intensely fractured; horizontal and uneven fracturing along bedding plane.
145			
150			
155			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-02

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(Interbedded MUDSTONE/SILTSTONE and SANDSTONE); weak red (5r 4/2); intensely fractured; horizontal and uneven fracturing along bedding plane. *(continued)*
160			

Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-03

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		ML	SANDY SILT (ML); brown (7.5yr 4/2); mostly SILT; some to little SAND, mostly fine, few coarse.
5		ML	SILT (ML); brown (7.5yr 4/2); mostly SILT; trace GRAVEL, fine.
10		SP	Poorly-graded SAND with SILT (SP); brown (7.5yr 4/2); mostly SAND, very fine; some SILT; NAPL observed.
15		ML	SILT (ML); brown (10yr 4/3); mostly SILT; NAPL observed at 28ft bgs, 33-34ft bgs, and 62ft bgs.
20			
25			
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-03

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			SILT (ML); brown (10yr 4/3); mostly SILT; NAPL observed at 28ft bgs, 33-34ft bgs, and 62ft bgs. *(continued)*
40			
45			
50			
55			
60			
65		ML	GRAVELLY SILT with SAND (ML); gray (7.5yr 6/1); mostly SILT; some GRAVEL, fine, rounded; little SAND, very fine to coarse.
70			
75			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-03

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			GRAVELLY SILT with SAND (ML); gray (7.5yr 6/1); mostly SILT; some GRAVEL, fine, rounded; little SAND, very fine to coarse. *(continued)*
80			
		ML	SILT (ML); gray (7.5yr 6/1); mostly SILT; little SAND, very fine.
85		ML	SILT with GRAVEL (ML); gray (7.5yr 6/1); mostly SILT; little GRAVEL, fine to coarse, subangular.
90			
95		SANDSTONE	(SANDSTONE); bluish gray (5b 5/1); fresh to moderately weathered; intensely fractured; slightly uneven, weathered fracture planes.
100			
105		CONGLOMERATE	(CONGLOMERATE); gray (n5); slightly weathered; intensely fractured; horizontal fracture planes.
110		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); weak red (5r 4/2); slightly weathered to intensely weathered; moderately fractured; uneven fracture planes and thin bedding planes.
115		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); weak red (5r 4/2); slightly weathered to intensely weathered; moderately fractured; uneven fracture planes and thin bedding planes; interbedded units (1½-4ft) of coarse grayish red sandstone.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\200003541\10326052\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-03

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			(MUDSTONE/SILTSTONE); weak red (5r 4/2); slightly weathered to intensely weathered; moderately fractured; uneven fracture planes and thin bedding planes; interbedded units (1½-4ft) of coarse grayish red sandstone. *(continued)*
120			
125			
130			
135			
140		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); weak red (5r 4/2); slightly weathered to intensely weathered; moderately fractured; uneven fracture planes and thin bedding planes; interbedded unit of mud-gray conglomerate.
145			
150		Interbedded MUDSTONE/SILTSTONE and SANDSTONE	(Interbedded MUDSTONE/SILTSTONE and SANDSTONE); weak red (5r 4/2), gray (n5); moderately fractured to intensely fractured; uneven fracture planes and thin bedding planes.
155			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-03

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(Interbedded MUDSTONE/SILTSTONE and SANDSTONE); weak red (5r 4/2), gray (n5); moderately fractured to intensely fractured; uneven fracture planes and thin bedding planes. *(continued)*
160			

Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-04

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		ML	SILT with SAND (ML); brown (10yr 5/3); mostly SILT; some SAND, fine.
5			
10		SP	Poorly-graded SAND (SP); brown (10yr 4/3); mostly SAND, mostly fine.
15		SW	Well-graded SAND (SW); ; mostly SAND, mostly medium, little fine, little coarse; trace GRAVEL, fine, rounded.
20		ML	SILT (ML); weak red (2.5yr 4/2), dark grayish brown (10yr 4/2); mostly SILT.
25			
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-04

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			
40			SILT (ML); weak red (2.5yr 4/2), dark grayish brown (10yr 4/2); mostly SILT. *(continued)*
45			
50		SP	Poorly-graded SAND with SILT (SP); dark grayish brown (10yr 4/2); mostly SAND, mostly fine; little SILT.
55			
60			
65		SM	SILTY SAND (SM); dark grayish brown (10yr 4/2); mostly SAND, fine; some SILT.
70			
75		SM	SILTY SAND (SM); very dark grayish brown (10yr 3/2); mostly SAND, fine; some SILT.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-04

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SILTY SAND (SM); very dark grayish brown (10yr 3/2); mostly SAND, fine; some SILT. *(continued)*
80			
85		CH	FAT CLAY (CH); dark grayish brown (10yr 4/2); mostly FAT CLAY; little SAND, fine.
90		SM	SILTY SAND (SM); dark grayish brown (10yr 4/2); mostly SAND, fine; some SILT.
95			
100			
105		ML	SILT with SAND (ML); brown (10yr 4/3); mostly SILT; little SAND, fine.
110		SW	Well-graded SAND with SILT (SW); dark brown (10yr 3/3); mostly SAND, fine to coarse; little SILT; trace GRAVEL, fine.
		SW	Well-graded SAND with SILT and GRAVEL (SW); weak red (10r 4/3); mostly SAND; little SILT; little GRAVEL.
115			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-04

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115		SANDSTONE	(SANDSTONE); rust red; slightly weathered; moderately soft.
120		MUDSTONE/SANDSTONE	(MUDSTONE/SANDSTONE); massive; gray to rust red; moderately hard; very intensely fractured; planer fractures, some cross-bed fractures, little bio-turbation.
125			
130		SILTSTONE/SANDSTONE	(SILTSTONE/SANDSTONE); light gray to rust red; moderately hard; planar fractures, Clay contact at 132ft bgs, semi-vertical fractures, Siltstone bioturbation, some crossbeds.
135		SANDSTONE/SILTSTONE	(SANDSTONE/SILTSTONE); fine sand; rust red to light gray; moderately hard to hard; very slightly fractured; pyrite nodule, some bioturbation, vertical fractures.
140		SANDSTONE/SILTSTONE	(SANDSTONE/SILTSTONE); fine sand; gray; hard; very slightly fractured; planar to semi-planar fracturing; bioturbation with pyrite nodules.
145		SANDSTONE	(SANDSTONE); fine sand; massive; gray; hard; very slightly fractured; planar fracturing; rough; high RQD, some bioturbation.
150			
155			

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BORING NUMBER SB-BR-04

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(SANDSTONE); fine sand; massive; gray; hard; very slightly fractured; planar fracturing; rough; high RQD, some bioturbation. *(continued)*
160			Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-05

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		SM	SILTY SAND with GRAVEL (SM); brown (10yr 4/3); mostly SAND, mostly fine, little coarse, little medium; some SILT; little GRAVEL, mostly fine, few coarse.
20		SP	Poorly-graded SILTY SAND (SM); dark grayish brown (10yr 4/2); mostly SAND, fine; some SILT (SM).
35			

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BORING NUMBER SB-BR-05

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35		ML	SILT (ML); dark grayish brown (10yr 4/2); mostly SILT.
		SP	Poorly-graded SAND with GRAVEL (SP); black (10yr 2/1); mostly SAND, coarse; little GRAVEL, fine, round; NAPL throughout.
40		ML	SILT (ML); dark reddish gray (2.5yr 4/1); mostly SILT; NAPL at 43ft bgs.
45			
50			
55		SM	SILTY SAND with GRAVEL (SM); brown (10yr 4/3); mostly SAND, fine to coarse; some SILT; little GRAVEL, fine to coarse; glacial material.
60		SM	SILTY SAND with GRAVEL (SM); brown (10yr 4/3); mostly SAND, fine to medium; some SILT; little GRAVEL, fine to coarse; NAPL at 57ft bgs.
65			
70			
75			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-05

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			
			SILTY SAND with GRAVEL (SM); brown (10yr 4/3); mostly SAND, fine to medium; some SILT; little GRAVEL, fine to coarse; NAPL at 57ft bgs. *(continued)*
80			
		GP	Poorly-graded GRAVEL and COBBLES (GP); brown (10yr 4/3); mostly GRAVEL, fine to 3-inch diameter, rounded.
85			
90		MUDSTONE	(MUDSTONE); very fine texture; red; very intensely fractured; rough.
95			
100			
105		MUDSTONE	(MUDSTONE); very fine texture; red; moderately fractured.
110		SANDSTONE	(SANDSTONE); fine sand; gray; moderately fractured.
115			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-05

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			
120		MUDSTONE	(MUDSTONE); very fine texture; red; very intensely fractured; rough.
125		SANDSTONE/CONGLOMERATE	(SANDSTONE/CONGLOMERATE); gray.
130			
135			
140		MUDSTONE	(MUDSTONE); very fine texture; red; very intensely fractured; rough.
145		SANDSTONE/CONGLOMERATE	(SANDSTONE/CONGLOMERATE); gray/blue.
150		MUDSTONE	(MUDSTONE); very fine texture; red; very intensely fractured; rough.
155			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-05

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			
160			(MUDSTONE); very fine texture; red; very intensely fractured; rough. *(continued)*

Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-06

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		SP	Poorly-graded SAND with SILT (SP); brown (7.5yr 5/4); trace GRAVEL, fine to coarse; organics (grass, roots, etc.).
5			
10		SW	Well-graded SAND (SW); brown (7.5yr 5/4); mostly SAND, fine to coarse.
15		SP	Poorly-graded SAND with CLAY (SP); dark yellowish brown (10yr 4/6); mostly SAND, fine; little CLAY.
20			
25		CH	FAT CLAY with GRAVEL (CH); brownish yellow (10yr 6/8); mostly FAT CLAY; little GRAVEL.
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-06

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			
			FAT CLAY with GRAVEL (CH); brownish yellow (10yr 6/8); mostly FAT CLAY; little GRAVEL. *(continued)*
40		SP	GRAVELLY poorly-graded SAND with SILT (SP); brownish yellow (10yr 6/8); mostly SAND; some GRAVEL; little SILT.
45		SP	Poorly-graded GRAVEL with SILT (SP); brownish yellow (10yr 6/8); glacial material.
50		COBBLES	COBBLES; dark yellowish brown (10yr 4/4).
55			
60		CH	FAT CLAY with SAND (CH); brown (7.5yr 4/4); mostly FAT CLAY; little SAND, very fine.
65		CH	FAT CLAY with SAND (CH); dark brown (7.5yr 3/4); mostly FAT CLAY; little SAND, very fine; trace GRAVEL, subrounded.
70		ML	SILT with GRAVEL (ML); yellowish red (5yr 5/6); mostly SILT; little GRAVEL, fine to coarse.
75			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-06

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SILT with GRAVEL (ML); yellowish red (5yr 5/6); mostly SILT; little GRAVEL, fine to coarse. *(continued)*
80			
85		MUDSTONE	(MUDSTONE); very fine texture; rust red; moderately hard; slightly fractured; planar fractured.
90		MUDSTONE	(MUDSTONE); very fine texture; rust red to green mottling; moderately hard; intensely fractured; planar to cross-planar fracturing; bioturbation.
95		SANDSTONE	(SANDSTONE); greenish gray to rust red; moderately hard to hard; moderately fractured; planar to cross-planar fracturing.
100		SANDSTONE/MUDSTONE	(SANDSTONE/MUDSTONE); fine sand; rust red to grayish green; moderately hard to hard; slightly fractured; planar to cross-planar fracturing.
105		SANDSTONE/MUDSTONE	(SANDSTONE/MUDSTONE); fine sand; rust red; moderately hard; moderately fractured.
110		MUDSTONE	(MUDSTONE); very fine texture; rust red to green with color mottling; moderately hard; very intensely fractured; indistinct planar, cross-planar, and vertical fracturing; some bioturbation.
115		MUDSTONE	(MUDSTONE); very fine texture; rust red to green with color mottling; hard; moderately fractured to intensely fractured; planar to cross-planar fracturing, some vertical fracturing.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-06

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			
120		SANDSTONE/MUDSTONE	(SANDSTONE/MUDSTONE); fine sand; dark red to rust red; moderately hard; moderately fractured; planar to cross-planar fracturing, vertical fracturing (4-6 inches long).
125		SANDSTONE/MUDSTONE	(SANDSTONE/MUDSTONE); very fine texture; dark red to rust red, some green (Clay) mottling in mudstone; moderately hard to hard, softening upwards; moderately fractured; planar to corss-planar fracturing; bioturbation.
130		SANDSTONE	(SANDSTONE); fine sand; massive; dark red; hard; very slightly fractured; planar fractured.
135		SANDSTONE	(SANDSTONE); fine sand; dark red; hard; slightly fractured; planar fractured.
140		SANDSTONE	(SANDSTONE); fine sand; massive; dark red; hard; very slightly fractured; planar fractured.
145		SANDSTONE	(SANDSTONE); fine sand; massive; light gray; hard; very slightly fractured; planar fractured.
150			
155	↓ ↓ ↓	MUDSTONE	(MUDSTONE); very fine texture; moderately bedded to thinly bedded; light gray; moderately hard; slightly fractured; planar to cross-planar fracturing.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-06

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			
160			(MUDSTONE); very fine texture; moderately bedded to thinly bedded; light gray; moderately hard; slightly fractured; planar to cross-planar fracturing. *(continued)*

Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-07

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		SM	SILTY SAND with GRAVEL and ORGANICS (SM); dark reddish brown (5yr 3/2); mostly SAND, fine; some SILT; trace fine GRAVEL; grass, roots present.
5		SP	Poorly-graded SAND with SILT (SP); very dark gray (5yr 3/1); mostly SAND, fine; little SILT; trace GRAVEL, fine; poor recovery.
10			
15			
20			
25		NO RECOVERY	No recovery.
30		ML	SANDY SILT (ML); stiff; dark brown (7.5yr 3/3); mostly SILT; some SAND, very fine.
35		ML	SILT with SAND (ML); dark brown (7.5yr 3/3); mostly SILT; little SAND, very fine.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605\2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-07

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			SILT with SAND (ML); dark brown (7.5yr 3/3); mostly SILT; little SAND, very fine. *(continued)*
		SP	Poorly-graded SAND (SP); brown (7.5yr 4/4); mostly SAND, fine; trace SILT.
40		SP	Poorly-graded SAND with SILT (SP); dark brown (7.5yr 3/3); mostly SAND, fine; little SILT.
45		SM	SILTY SAND (SM); dark brown (7.5yr 3/3); mostly SAND, fine; some SILT.
50			
55			
		SP	Poorly-graded SAND (SP); dense; reddish gray (5yr 5/2); mostly SAND, fine; trace SILT.
60			
		ML	SILT with SAND and GRAVEL (ML); stiff; brown (7.5yr 5/3); mostly SILT; little SAND, fine to coarse; little GRAVEL, fine to coarse; glacial material.
65			
70			
75			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-07

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			
			SILT with SAND and GRAVEL (ML); stiff; brown (7.5yr 5/3); mostly SILT; little SAND, fine to coarse; little GRAVEL, fine to coarse; glacial material. *(continued)*
80		TOP OF BEDROCK	Top of bedrock.
85		SANDSTONE	(SANDSTONE); light green; hard; slightly fractured; planar fracturing, some small vertical fractures.
90			
95			
100		CONGLOMERATE/SANDSTONE	(CONGLOMERATE/SANDSTONE); fine CONGLOMERATE/coarse SAND; light green; hard; moderately fractured; cross fracturing.
105		MUDSTONE	(MUDSTONE); very fine texture; rust red to mottled light green; moderately hard; slightly fractured to intensely fractured; planar/cross-planar fracturing; areas of high fracturing (100-103ft bgs and 109-110ft bgs); softer rock than sandstone beneath it.
110			
115			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-07

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			
120			(MUDSTONE); very fine texture; rust red to mottled light green; moderately hard; slightly fractured to intensely fractured; planar/cross-planar fracturing; areas of high fracturing (100-103ft bgs and 109-110ft bgs); softer rock than sandstone beneath it. *(continued)*
125		SANDSTONE	(SANDSTONE); fine sand; color blending of dark red and light grey; hard; slightly fractured; planar and cross-planar fracturing, vertical fracturing somewhat present.
130			
135		SANDSTONE	(SANDSTONE); fine sand; light gray to dark red mottling; hard; very slightly fractured; planar and cross-planar fracturing, vertical fracturing somewhat present; bioturbation.
140		MUDSTONE	(MUDSTONE); very fine texture; rust red to gray mottling; moderately hard; moderately fractured; cross to planer bedding, some vertical fractures; bioturbation.
145		SANDSTONE	(SANDSTONE); fine sand; light gray; hard; very slightly fractured; planar bedding, significant vertical fracturing, other smaller fractures present; some bioturbation, some slicks near fractured planes.
150			
155		MUDSTONE	(MUDSTONE); very fine texture; rust red to grat mottling; moderately hard; very slightly fractured; cross to planar bedding, some vertial fractures; bioturbation.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-07

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			
160			(MUDSTONE); very fine texture; rust red to grat mottling; moderately hard; very slightly fractured; cross to planar bedding, some vertial fractures; bioturbation. *(continued)*

Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-10

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		ML	SANDY SILT with ORGANICS (ML); dark brown (10yr 3/3); mostly SILT; some SAND, fine; little ORGANICS, roots, etc.
10		SP	Poorly-graded SAND with SILT (SP); dark yellowish brown (10yr 3/6); mostly SAND, fine; little SILT.
		SW	Well-graded SAND (SW); dark brown (10yr 3/3); mostly SAND, mostly fine, little medium, trace coarse; trace GRAVEL, fine, subrounded.
15		SM	SILTY SAND (SM); dark yellowish brown (10yr 3/6); mostly SAND, fine; some SILT.
20		ML	SILT (ML); brown (10yr 4/3); mostly SILT.
25			
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-10

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			SILT (ML); brown (10yr 4/3); mostly SILT. *(continued)*
40			
45			
50			
55			
60			
65		ML	SILT with SAND and GRAVEL (ML); dusky red (2.5yr 3/2); mostly SILT; little SAND, fine to coarse; little GRAVEL, fine to coarse; glacial material.
70			
75			

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-10

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SILT with SAND and GRAVEL (ML); dusky red (2.5yr 3/2); mostly SILT; little SAND, fine to coarse; little GRAVEL, fine to coarse; glacial material. *(continued)*
80			
85			
90		ML	SILT (ML); very dense; dark reddish brown (2.5yr 3/4); mostly SILT; trace SAND, fine; trace GRAVEL, fine; glacial material.
95			
100		ML	SILT with SAND and GRAVEL (ML); dusky red (2.5yr 3/2); mostly SILT; little SAND, fine to coarse; little GRAVEL, fine to coarse; glacial material.
105		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); rust red; slightly weathered.
110		MUDSTONE	(MUDSTONE); fine sand; rust red; moderately hard; slightly fractured; planar fractures; some bioturbation/trace burrows.
115		MUDSTONE	(MUDSTONE); fine sand; rust red; moderately hard; intensely fractured; planar to semi-cross fractured; some bioturbation.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-10

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115		SANDSTONE	(SANDSTONE); fine sand; light gray; hard; slightly fractured; planar fractured.
120			
125		SANDSTONE	(SANDSTONE); fine sand; rust red to mottled gray; hard; unfractured; planar bedding.
130			
135		SILTSTONE/MUDSTONE	(SILTSTONE/MUDSTONE); fine sand; rust red to mottled gray; moderately hard; moderately fractured; planar and semi-crossbedded; some bioturbation.
140		SANDSTONE	(SANDSTONE); fine sand; light gray; hard; slightly fractured; planar bedding; some pyrite nodules.
145		CONGLOMERATIC SANDSTONE	(CONGLOMERATIC SANDSTONE); fine sand to coarse SAND; light gray; hard; slightly fractured; planar bedding.
150		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); fine sand; rust red to gray mottling; moderately hard; slightly fractured; planar to semi-cross fractured; some bioturbation.
155			

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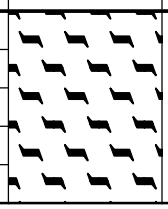
GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-10

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(MUDSTONE/SILTSTONE); fine sand; rust red to gray mottling; moderately hard; slightly fractured; planar to semi-cross fractured; some bioturbation. *(continued)*
160			

Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-11

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		SM	SILTY SAND with ORGANICS (SM); brown (10yr 4/3); mostly SAND, fine; some SILT; little ORGANICS, roots, grass, etc.
5			
10		SP	Poorly-graded SAND (SP); yellowish brown (10yr 5/6); mostly SAND, fine.
15			
20		SP	Poorly-graded SAND with SILT (SP); yellowish brown (10yr 5/6); mostly SAND, fine; little SILT.
25		ML	SILT (ML); brownish yellow (10yr 6/8); mostly SILT.
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-11

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			SILT (ML); brownish yellow (10yr 6/8); mostly SILT. *(continued)*
40		SP	Poorly-graded SAND (SP); light brownish gray (10yr 6/2); mostly SAND, mostly medium, few fine; staining present, odor.
45		ML	SILT with SAND (ML); dark grayish brown (10yr 4/2); mostly SILT; little SAND, fine.
50			
55			
60			
65			
70			
75		ML	SILT with SAND and GRAVEL (ML); red (5r 4/8); mostly SILT; little SAND, fine to coarse; little GRAVEL, fine to coarse.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-11

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SILT with SAND and GRAVEL (ML); red (5r 4/8); mostly SILT; little SAND, fine to coarse; little GRAVEL, fine to coarse. *(continued)*
80			
85			
90			
95			
100			
105			
110		SILTSTONE/MUDSTONE	(SILTSTONE/MUDSTONE); SILT; brown (7.5yr 4/2); slightly weathered; planar fractures.
115			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-11

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			
120			(SILTSTONE/MUDSTONE); SILT; brown (7.5yr 4/2); slightly weathered; planar fractures. *(continued)*
125		SANDSTONE	(SANDSTONE); fine sand; gray (n5); slightly weathered; moderately fractured to intensely fractured; planar fractures.
130			
135		SILTSTONE/MUDSTONE	(SILTSTONE/MUDSTONE); SILT; brown (7.5yr 4/2); slightly weathered; planar fractures.
140		SANDSTONE	(SANDSTONE); fine sand; gray (n5); slightly weathered; moderately fractured to intensely fractured; planar fractures.
145			
150			
155		SILTSTONE/MUDSTONE	(SILTSTONE/MUDSTONE); SILT; brown (7.5yr 4/2); slightly weathered; planar fractures.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-11

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(SILTSTONE/MUDSTONE); SILT; brown (7.5yr 4/2); slightly weathered; planar fractures. *(continued)*
160			

Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-12

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		SM	SILTY SAND with GRAVEL (SM); very dark grayish brown (10yr 3/2); mostly SAND, fine; some SILT; little GRAVEL, fine.
20		SP	Poorly-graded SAND with SILT (SP); grayish brown (10yr 5/2); mostly SAND, very fine; little SILT.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-12

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			Poorly-graded SAND with SILT (SP); grayish brown (10yr 5/2); mostly SAND, very fine; little SILT. *(continued)*
40			
45			
50			
55			
60			
65			
70			
75			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-12

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			Poorly-graded SAND with SILT (SP); grayish brown (10yr 5/2); mostly SAND, very fine; little SILT. *(continued)*
80			
85			
90			
95		SM	SILTY SAND with GRAVEL (SM); dark reddish brown (2.5yr 3/4); mostly SAND, fine; some SILT; little GRAVEL, fine, rounded; glacial material.
100			
105			
110			
115			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
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Telephone: 201-335-9489

BORING NUMBER SB-BR-12

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			
120		MUDSTONE/SANDSTONE	(MUDSTONE/SANDSTONE); rust red; moderately weathered; planar fractures.
125		SANDSTONE	(SANDSTONE); fine sand; light gray to mottled rust red; hard; slightly fractured; planar fractures; some bioturbation.
130		SILTSTONE to SANDSTONE	(SILTSTONE to SANDSTONE); fine sand; light gray; moderately hard; intensely fractured; planar bedding.
135		SANDSTONE	(SANDSTONE); fine sand; light gray; hard; slightly fractured; small siltstone layer.
140		SILTSTONE/MUDSTONE	(SILTSTONE/MUDSTONE); fine sand; rust red; moderately hard; moderately fractured; planar to semi-angled bedding; some bioturbation.
145			
150		SANDSTONE to SILTSTONE	(SANDSTONE to SILTSTONE); fine sand; rust red to mottled light greenish gray; moderately hard; moderately fractured; planar to semi-crossbedded.
155		SANDSTONE	(SANDSTONE); fine sand; light gray; hard; moderately fractured; planar to semi-angled fractures.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-12

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(SANDSTONE); fine sand; light gray; hard; moderately fractured; planar to semi-angled fractures. *(continued)*
160		CONGLOMERATIC SANDSTONE	(CONGLOMERATIC SANDSTONE); fine sand; light gray; hard; intensely fractured; planar to semi-angled fractures; grading downward into rust red mudstone/siltstone.
			Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Woodcliff Lake, NJ 07677

BORING NUMBER SB-BR-13

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		SM	SILTY SAND (SM); brownish red; mostly SAND, fine; some SILT; trace GRAVEL and wood.
5			
10		SP	Poorly-graded SAND with SILT (SP); yellowish brown; mostly SAND, fine; little SILT; trace GRAVEL.
15		SP	Poorly-graded SAND with SILT (SP); tan brown; mostly SAND, fine; little SILT; trace GRAVEL.
20		SM	SILTY SAND (SM); light brown; mostly SAND, fine; some SILT.
25			
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 7/10/24 10:00 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\20000354\103260525.0_PROJ_DEV5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Woodcliff Lake, NJ 07677

BORING NUMBER SB-BR-13

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			
40		SM	SILTY SAND (SM); grayish brown; mostly SAND, fine; some SILT.
45		SP	Poorly-graded SAND with SILT (SP); grayish brown; mostly SAND, fine; little SILT.
50			
55			
60		SM	SILTY SAND (SM); grayish brown; mostly SAND, fine; some SILT.
65		SW	Well-graded SAND (SW); grayish brown; mostly SAND, fine and medium; trace SILT.
70		SP	Poorly-graded SAND (SP); light brown; mostly SAND, fine.
75			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 7/10/24 10:00 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\20000354\103260525.0_PROJ_DEV5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd, Suite 210
Woodcliff Lake, NJ 07677

BORING NUMBER SB-BR-13

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75		SP	Poorly-graded SAND (SP); brown; mostly SAND, fine; trace SILT.
80			
85			
90		SP	Poorly-graded SAND with SILT (SP); light brown; mostly SAND, fine; little SILT.
95			
100		SP	Poorly-graded SAND with SILT (SP); brown; mostly SAND, fine; little SILT.
105		SP	Poorly-graded SAND (SP); dark brown; mostly SAND, fine.
110		SP	Poorly-graded SAND with SILT (SP); dark brown; mostly SAND, fine; little SILT.
115			

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GCL BORING LOGS - GINT STD US.GDT - 7/10/24 10:00 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\20000354\103260525.0_PROJ_DEV5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
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Woodcliff Lake, NJ 07677

BORING NUMBER SB-BR-13

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115		SW	Well-graded SAND with SILT and GRAVEL (SW); rust red; mostly SAND, fine to coarse; little SILT; little GRAVEL; glacial material.
		SANDSTONE/SILTSTONE	(SANDSTONE/SILTSTONE); rust red/gray; hard; very slightly fractured; planar bedding.
120			
125			
130			
135			
140			
		SANDSTONE/SILTSTONE	(SANDSTONE/SILTSTONE); gray; hard; moderately fractured; cross to planar bedding.
145			
150			
		SANDSTONE	(SANDSTONE); fine SAND; gray; hard; slightly fractured; cross to planar bedding.
155			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 7/10/24 10:00 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\20000354\103260525.0_PROJ_DEV5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-13

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155		SANDSTONE	(SANDSTONE); laminated; gray; hard; moderately fractured; planar bedding.
160			
165			
170		SANDSTONE/SILTSTONE	(SANDSTONE/SILTSTONE); laminated; gray; hard; very slightly fractured; planar bedding.
		SANDSTONE/SILTSTONE	(SANDSTONE/SILTSTONE); some laminations; gray; hard; moderately fractured; plasticity; planar bedding
175			
180		SANDSTONE	(SANDSTONE); massive; rust red; hard; very slightly fractured; planar bedding.
185			
190			
195			

GCL BORING LOGS - GINT STD US.GDT - 7/10/24 10:00 - \\NJ-MAHWAH\ACTIVE\PROJECTS\2075\200000354\103260525.0_PROJ_DEV5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-13

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
195			(SANDSTONE); massive; rust red; hard; very slightly fractured; planar bedding. *(continued)*
200			

Bottom of borehole at 200.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 7/10/24 10:00 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\20000354\103260525.0_PROJ_DEV5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
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Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF16

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		ML	SILT (ML); stiff; brown (7.5yr 4/2); wet; mostly SILT.
		ML	SILT with SAND and GRAVEL (ML); soft; brown (7.5yr 4/2); moist; mostly SILT; little SAND, fine; little GRAVEL, fine, subangular.
5			
		SP	Poorly-graded SAND (SP); dense; black (n2.5); moist; mostly SAND, fine; odor and staining.
10			
		ML	SILT (ML); soft; brown (7.5yr 4/2); wet; mostly SILT; odor present.
15			
20		ML	SILT with SAND (ML); soft; brown (7.5yr 4/2); mostly SILT; little SAND, fine; odor present.
		SP	Poorly-graded SAND with SILT (SP); dense; variegated, dark grayish brown (10yr 4/2), very dark gray (10yr 3/1), black (10yr 2/1); wet; mostly SAND, fine; little SILT.
25			
		ML	SILT with SAND (ML); soft; brown (7.5yr 5/3); wet; mostly SILT; little SAND, fine.
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605215.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF16

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			SILT with SAND (ML); soft; brown (7.5yr 5/3); wet; mostly SILT; little SAND, fine. *(continued)*
40		SP	Poorly-graded SAND with SILT (SP); brown (10yr 4/3); mostly SAND, very fine; little SILT.
45			
50			
55		SP	Poorly-graded SAND (SP); brown (10yr 4/3); mostly SAND, very fine approching silt-sized.
60		ML	SILT (ML); stiff; reddish brown (2.5yr 5/4); mostly SILT; few-little GRAVEL, fine to coarse, rounded; glacial material.
65			
70			
75			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-LIF16

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SILT (ML); stiff; reddish brown (2.5yr 5/4); mostly SILT; few-little GRAVEL, fine to coarse, rounded; glacial material. *(continued)*
		ML	SILT (ML); medium stiff; very dark bluish gray (5pb 3/1); mostly SILT; weathered bedrock.
80		SANDSTONE	(SANDSTONE); fine sand; laminated; bluish gray (5pb 6/1); slightly weathered; intensely fractured; spacing: open; clean infilling; not healed; moderately rough.
85		SANDSTONE	(SANDSTONE); fine sand; laminated; bluish gray (5pb 6/1); fresh; slightly fractured.
		SANDSTONE	(SANDSTONE); bluish gray (5pb 6/1); very intensely fractured; moderately rough.
		SANDSTONE	(SANDSTONE); fine sand; laminated; bluish gray (5pb 6/1); fresh; slightly fractured.
90		CONGLOMERATE	(CONGLOMERATE); bluish gray (5pb 6/1); slightly fractured.
95		SHALE	(SHALE); SILT; laminated; brown (7.5yr 4/2); slightly weathered; intensely fractured; rough.
		SANDSTONE	(SANDSTONE); fine sand; laminated; bluish gray (5pb 6/1); slightly weathered; very intensely fractured.
100		SANDSTONE	(SANDSTONE); fine sand; brown (7.5yr 5/2); moderately fractured.
105		CONGLOMERATE	(CONGLOMERATE); coarse SAND; laminated; brown (7.5yr 5/2).
110		SHALE	(SHALE); SILT; laminated; dark bluish gray (5pb 4/1); intensely fractured.
115		CONGLOMERATE	(CONGLOMERATE); coarse SAND; laminated; brown (7.5yr 5/2).

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF16

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			(CONGLOMERATE); coarse SAND; laminated; brown (7.5yr 5/2). *(continued)*
120		SANDSTONE	(SANDSTONE); fine sand; laminated; dark bluish gray (5pb 4/1); moderately fractured.
125			
130			
135			
		SHALE	(SHALE); SILT; laminated; grayish red (7.5r 5/2); intensely fractured.
		SILTSTONE	(SILTSTONE); SILT; laminated; grayish red (7.5r 5/2); intensely fractured.
140			
145			
150			
155			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-LIF16

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			
			(SILTSTONE); SILT; laminated; grayish red (7.5r 5/2); intensely fractured. *(continued)*
160			
			Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-LIF18

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		OH	ORGANIC MATERIAL (OH); soft; dark brown (10yr 3/3); wet; mostly SILT; some roots and grass.
5		ML	SILT (ML); stiff; very dark gray (10yr 3/1); mostly SILT; trace GRAVEL, fine.
10		SP	Poorly-graded SAND (SP); medium dense; black (N2.5); mostly SAND, very fine; sheen, strong odor, visible NAPL.
15		SW	Well-graded SAND (SW); medium dense; dark gray (10yr 4/1); mostly SAND, very fine to coarse, subangular to angular; odor, no sheen.
		SP	Poorly-graded SAND (SP); medium dense; black (n2.5); mostly SAND, very fine; sheen, odor.
20		SP	Poorly-graded SAND (SP); medium dense; dark brown (7.5yr 3/2); mostly SAND, very fine; odor, no sheen.
25		SP	Poorly-graded SAND (SP); medium dense; variegated, brown (10yr 4/3), yellowish brown (10yr 5/4); mostly SAND, fine; no odor.
		SW	Well-graded SAND (SW); medium dense; dark brown (7.5yr 3/2); mostly SAND, mostly fine, some medium, few coarse; no odor.
30		GW	GRAVEL with SAND (GW); loose; light brownish gray (10yr 6/2); mostly GRAVEL, fine to coarse, rounded; no odor.
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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50 Tice Blvd
Woodcliff Lake, NJ 07677
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BORING NUMBER SB-BR-LIF18

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35		SW	GRAVELLY SAND (SW); loose; brown (7.5yr 5/4); mostly SAND, fine to coarse; some GRAVEL, fine to coarse; no odor.
40			
45			
50			
55			
60		GW	SANDY GRAVEL (GW); loose; light reddish brown (5yr 6/3); mostly GRAVEL, fine to coarse, rounded; some SAND, fine to medium; no odor; glacial material.
65			
70			
75		GW	SANDY GRAVEL (GW); loose; light reddish brown (2.5yr 6/4); mostly GRAVEL, fine to coarse, rounded; some SAND, fine; no odor; glacial material.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Woodcliff Lake, NJ 07677
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BORING NUMBER SB-BR-LIF18

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SANDY GRAVEL (GW); loose; light reddish brown (2.5yr 6/4); mostly GRAVEL, fine to coarse, rounded; some SAND, fine; no odor; glacial material. *(continued)*
80		MUDSTONE	(MUDSTONE); very fine sand; rust iron red; moderately fractured; planar beds.
85		MUDSTONE	(MUDSTONE); very fine sand; laminated; rust iron red with gray mottling; very intensely fractured; planar beds; some bioturbation.
90			
95		SANDSTONE	(SANDSTONE); fine sand; light gray; intensely fractured; planar beds; moderately rough.
100		SANDSTONE/CONGLOMERATE	(SANDSTONE/CONGLOMERATE); fine sand; gray; moderately rough.
105		MUDSTONE/SILTSTONE	(MUDSTONE/SILTSTONE); very fine sand; red; planar/cross fractures; not healed; bioturbation.
110		SHALE/MUDSTONE	(SHALE/MUDSTONE); laminated; red with some gray mottling; intensely fractured; planar beds; bioturbation.
115			

(Continued Next Page)

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Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF18

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115		SANDSTONE/MUDSTONE	(SANDSTONE/MUDSTONE); laminated; rust red with some gray mottling; slightly weathered; intensely fractured; planar beds; bioturbation.
120			
125		SANDSTONE	(SANDSTONE); massive; gray/rust red; hard; slightly fractured; planar fractures; some bioturbation.
130			
135		SANDSTONE	(SANDSTONE); laminated; rust red; moderately hard; very slightly fractured; planar fractures.
140			
145		SANDSTONE/MUDSTONE	(SANDSTONE/MUDSTONE); rust red; moderately hard; planar/crossbeds; not healed; moderately rough.
150			
155		SANDSTONE	(SANDSTONE); light gray; hard; very slightly fractured; planar fractures; moderately rough.

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF18

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155		SANDSTONE	(SANDSTONE); gray; hard; moderately fractured; planar beds; moderately rough; some bioturbation.
160			Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF22

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0		ML	SANDY SILTY (ML); light brownish gray (10yr 6/2); mostly SILT; some-little SAND, fine; trace GRAVEL, fine.
5			
10			
15		SP	Poorly-graded SAND (SP); brown (7.5yr 5/4); mostly SAND, mostly fine, trace coarse.
20		SM	Well-graded SAND with SILT (SM); yellowish brown (10yr 5/4); mostly SAND, mostly fine, little coarse, trace medium; little SILT; trace GRAVEL, fine.
		SM	Well-graded SAND with SILT (SM); gray (7.5yr 6/1); mostly SAND, mostly fine, little coarse, trace medium; little SILT; trace GRAVEL, fine; plasticity.
		ML	SILT (ML); light gray (10yr 7/2); mostly SILT; NAPL observed at 19ft bgs.
25			
30			
35			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-LIF22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35			SILT (ML); light gray (10yr 7/2); mostly SILT; NAPL observed at 19ft bgs. *(continued)*
40			
45			
50		ML	SILT (ML); light gray (10yr 7/2); mostly SILT; little GRAVEL, fine, angular.
55		ML	GRAVELLY SILT with SAND (ML); reddish brown (2.5yr 5/4); mostly SILT; some GRAVEL, fine, rounded; little SAND, fine; glacial material.
60			
65			
70			
75			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			GRAVELLY SILT with SAND (ML); reddish brown (2.5yr 5/4); mostly SILT; some GRAVEL, fine, rounded; little SAND, fine; glacial material. *(continued)*
80		SP	Poorly-graded SAND (SP); reddish brown (2.5yr 5/4); mostly SAND, fine; few SILT; glacial material.
85		SP	Poorly-graded SAND (SP); reddish brown (2.5yr 5/4); mostly SAND, mostly fine, trace coarse; few SILT; glacial material.
90		ML	GRAVELLY SILT (ML); reddish gray (2.5yr 6/1); mostly SILT; some GRAVEL, fine, subangular; few SAND, fine; glacial material.
95		CONGLOMERATE	(CONGLOMERATE); massive; gray; hard; intensely fractured; moderately rough.
100		SANDSTONE	(SANDSTONE); massive; rust red; hard; intensely fractured; planar fractures; some bioturbation.
105		SANDSTONE to MUDSTONE	(SANDSTONE to MUDSTONE); laminated; rust red with some gray mottling; moderately hard; intensely fractured; planar fractures.
110		SANDSTONE to MUDSTONE	(SANDSTONE to MUDSTONE); coarse SAND to mud; massive to laminated; rust red; hard; slightly fractured to intensely fractured; planar fractures; moderately rough; some bioturbation in finer areas.
115			

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GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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BORING NUMBER SB-BR-LIF22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			
120			(SANDSTONE to MUDSTONE); coarse SAND to mud; massive to laminated; rust red; hard; slightly fractured to intensely fractured; planar fractures; moderately rough; some bioturbation in finer areas. *(continued)*
125		SANDSTONE	(SANDSTONE); massive; light reddish gray; hard; moderately fractured; planar fractures; moderately rough.
130		SANDSTONE with interbedded MUDSTONE and CONGLOMERATE layers	(SANDSTONE with interbedded MUDSTONE and CONGLOMERATE layers); massive to laminated; light gray to reddish gray; very hard; moderately fractured; planar fractures; moderately rough.
135		MUDSTONE	(MUDSTONE); fine sand; laminated; rust red; planar fractures; some bioturbation.
140		SANDSTONE	(SANDSTONE); massive; light gray to reddish gray; very hard; moderately fractured; planar fractures; rough.
145		SANDSTONE	(SANDSTONE); laminated; light gray; very hard; very slightly fractured; planar fractures; rough.
150		MUDSTONE/SANDSTONE	(MUDSTONE/SANDSTONE); light gray; moderately hard; planar to semi-planar fractures; bioturbation.
		MUDSTONE/SANDSTONE	(MUDSTONE/SANDSTONE); red; moderately hard; moderately fractured; planar to semi-planar fractures; bioturbation.
155		SANDSTONE with interbedded SHALE and MUDSTONE	(SANDSTONE with interbedded SHALE and MUDSTONE); moderately bedded to laminated; rust red; moderately hard; moderately fractured to intensely fractured; planar fractured; rough; bioturbation.

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-BR-LIF22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155		SANDSTONE	(SANDSTONE); massive; rust red with some gray mottling; hard; very slightly fractured; planar fractured; rough.
160			Bottom of borehole at 160.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-MW-22

CLIENT GCL Tie & Treating
PROJECT NAME GCL Tie & Treating
PROJECT NUMBER 10326052-002
PROJECT LOCATION Sidney, New York
DATE STARTED 12/1/22 **COMPLETED** 12/1/22
LOGGED BY Matthew T Keaveney
DRILLING CONTRACTOR Parratt-Wolff
DRILLING METHOD Drill

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
0			
5		SW	Well-graded SAND (SW); loose; very dark brown (10yr 2/2); mostly SAND, fine to coarse; trace GRAVEL, fine; trace COBBLES.
10		ML	SILT (ML); medium stiff; brown (10yr 4/3); mostly SILT, non-plastic, cohesive.
15		ML	SANDY SILT (ML); stiff to medium stiff; dark yellowish brown (10yr 4/4); mostly SILT, cohesive, non-plastic; somer SAND, fine.
20		ML	SILT (ML); very soft; dark yellowish brown (10yr 4/4); mostly SILT, non-plastic; trace SAND, fine.
25		ML	SANDY SILT (ML); medium stiff; very dark grayish brown (10yr 3/2); mostly SILT, semi-cohesive; some SAND, fine.
30		ML	SILT (ML); very soft; dark yellowish brown (10yr 4/4); mostly SILT, non-plastic; trace SAND, fine.
35			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-MW-22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
35		ML	SANDY SILT (ML); soft; dark yellowish brown (10yr 3/4); mostly SILT, cohesive, non-plastic; some SAND, fine; trace GRAVEL; faint odor.
40		SM	SILTY SAND (SM); very soft; dark yellowish brown (10yr 3/4); mostly SAND, fine, coarsing upwards; some SILT.
45		ML	SILT (ML); very soft; dark yellowish brown (10yr 3/4); mostly SILT.
50		SM	SILTY SAND (SM); very soft; dark yellowish brown (10yr 3/4); mostly SAND, fine, coarsing upwards; some SILT.
55		ML	SANDY SILT (ML); dark yellowish brown (10yr 3/4); mostly SILT, semi-cohesive; some SAND, fine, coarsing upwards.
60		ML	SANDY SILT with GRAVEL (ML); dark yellowish brown (10yr 3/4); mostly SILT; some SAND, fine; little GRAVEL.
65			
70			
75			

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-MW-22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
75			SANDY SILT with GRAVEL (ML); dark yellowish brown (10yr 3/4); mostly SILT; some SAND, fine; little GRAVEL. *(continued)*
80			
85			
90			
95		SM	SILTY SAND with GRAVEL (SM); dark reddish brown (2.5yr 3/4); mostly SAND; some SILT; little GRAVEL.
100			
105		SILTSTONE/MUDSTONE	(SILTSTONE/MUDSTONE); SILT; massive; mottled, rust red/gray; moderately hard; moderately fractured; planar/cross fractured; Oneonta Formation.
110			
115		SANDSTONE	(SANDSTONE); fine sand; massive; mottled, rust red/gray; hard; slightly fractured; planar fractured; Oneonta Formation.

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

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Telephone: 201-335-9489

BORING NUMBER SB-MW-22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
115			(SANDSTONE); fine sand; massive; mottled, rust red/gray; hard; slightly fractured; planar fractured; Oneonta Formation. *(continued)*
		SANDSTONE	(SANDSTONE); fine sand; massive; mottled, dark reddish brown (2.5yr 3/4), very dark greenish gray (5g 3/1); fresh to slightly weathered; hard; moderately fractured; slightly planar fractured; Oneonta Formation; fractures at 117.5 and 118.3ft bgs.
120			
		SANDSTONE	(SANDSTONE); fine sand; massive; very dark greenish gray (5g 3/1); fresh to slightly weathered; hard; moderately fractured to intensely fractured; planar fractured; Oneonta Formation; fractures at 124.3, 126, 126.05, 126.1, and 126.2ft bgs. Some fossil mounds at 123.7ft bgs..
125			
		SHALE	(SHALE); clay; very dark greenish gray (5g 3/1); Oneonta Formation; unlithified to semi-lithified.
		SILTSTONE/MUDSTONE	
		SILTSTONE/MUDSTONE	(SILTSTONE/MUDSTONE); very fine texture; thinly bedded to laminated; mottled, dark reddish brown (2.5yr 3/4), grayish green (5g 5/2); fresh to slightly weathered; moderately hard; vertical fractures between 126.3 and 127ft bgs; Oneonta Formation; moderately porus.
130			(SILTSTONE/MUDSTONE); very fine texture; thinly bedded to laminated; mottled, dark reddish brown (2.5yr 3/4), grayish green (5g 5/2); fresh to slightly weathered; moderately hard; intensely fractured; moderately vertical and horizontally fractured; Oneonta Formation; vertical fractures between 127 and 128.8ft bgs; horizontal fractures at 127.5, 127.6, 128, 128.2, 128.5, 128.8, 129.1, 129.2, 129.3, 129.6, 130.4, and 130.9ft bgs; moderately porus.
		SILTSTONE/MUDSTONE	
		SILTSTONE/SANDSTONE	(SILTSTONE/MUDSTONE); very fine texture; thinly bedded to laminated; mottled, dark reddish brown (2.5yr 3/4), grayish green (5g 5/2); fresh to slightly weathered; moderately hard; intensely fractured; slightly planar fractured; Oneonta Formation; fractures at 132.3, 132.8, 133ft bgs; moderately porus.
135			(SILTSTONE/SANDSTONE); fine sand; laminated; very dark greenish gray (5g 3/1); fresh to slightly weathered; hard; moderately fractured; moderately planar fractured; Oneonta Formation; fractures at 134.2, 134.4, 134.6, 135.2, 136.4, 136.7, 136.8ft bgs; vertically fractured between 134.6 and 135.2ft bgs; lightly porus; vertical calcite vein between 133.5 and 135.2ft bgs.
		SANDSTONE	
			(SANDSTONE); fine sand; laminated; very dark greenish gray (5g 3/1); fresh to slightly weathered; hard; slightly fractured; Oneonta Formation; fractures at 139.2, 139.6, 141.2, 141.6ft bgs; lightly porus; some pyrite nodules at 141.7, 141.5, and 142ft bgs; fossil mounding layer at 140.2ft bgs.
140			
145		SILTSTONE	(SILTSTONE); fine texture; massive; grayish green (5g 5/2), greenish black (10y 2.5/1); fresh to slightly weathered; moderately hard; very intensely fractured; Oneonta Formation; fractures at 144.65, 144.68, 144.7, 144.8, 144.9, 145ft bgs; not very porus; some slicks and alteration between 144.7 and 145ft bgs.
		SILTSTONE/MUDSTONE	
			(SILTSTONE/MUDSTONE); fine texture; thinly bedded to laminated; mottled, dark reddish brown (2.5yr 3/4), grayish green (5g 5/2); fresh to slightly weathered; moderately hard; intensely fractured to very intensely fractured; not very planar fractured; Oneonta Formation; fractures at 148.9, 149.1, 149.5, 149.7, 149.8, 149.9ft bgs; vertical fracture between 149.5 and 149.8ft bgs; moderately porus.
150			
		SILTSTONE/SANDSTONE	(SILTSTONE/SANDSTONE); fine texture; thinly bedded to laminated; dark reddish brown (2.5yr 3/4); fresh to slightly weathered; hard to moderately hard; intensely fractured to very intensely fractured; moderately planar fractured; Oneonta Formation; crossbedding; fractures at 151, 151.7, 151.8, 151.85, 151.9, 152.2, 152.4, 153.1, 153.4ft bgs; moderately porus.
155		SILTSTONE/MUDSTONE	

(Continued Next Page)

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

HDR
50 Tice Blvd
Woodcliff Lake, NJ 07677
Telephone: 201-335-9489

BORING NUMBER SB-MW-22

CLIENT GCL Tie & Treating **PROJECT NAME** GCL Tie & Treating

PROJECT NUMBER 10326052-002 **PROJECT LOCATION** Sidney, New York

DEPTH (ft)	GRAPHIC LOG	USCS Codes	MATERIAL DESCRIPTION
155			(SILTSTONE/MUDSTONE); fine texture; thinly bedded to laminated; dark reddish brown (2.5yr 3/4); fresh to slightly weathered; moderately hard; moderately fractured; horizonatally fractured; Oneonta Formation; fractures at 154.5, 154.9, 154.95, 155.7, 156.3, 157.1, 158.3, 160, 160.4ft bgs; moderaetly porus. *(continued)*
160			

Bottom of borehole at 161.0 feet.

GCL BORING LOGS - GINT STD US.GDT - 12/14/23 14:16 - \\NJ-MAHWAH\ACTIVEPROJECTS\2075\2000035411032605 2\5.0_PROJ_DEV\5.2_WIP\BORINGS\GINT\GCL GINT BORING LOGS.GPJ

APPENDIX E

HAGER-RICHTER
GEOSCIENCE, INC.

GEOPHYSICS FOR THE ENGINEERING COMMUNITY
ATKINSON, NEW HAMPSHIRE
Tel: 603.893.9944
FORDS, NEW JERSEY
Tel: 732.661.0555

BOREHOLE GEOPHYSICAL LOGGING - DATA REPORT
BOREHOLES

MW-22	**SB-BR-06**	**SB-BR-11**	**SB-BR-LIF01**	**SB-BR-LIF18**
SB-BR-04	**SB-BR-07**	**SB-BR-12**	**SB-BR-LIF02**	**SB-BR-LIF22**
SB-BR-05	**SB-BR-10**	**SB-BR-13**	**SB-BR-LIF16**	

GCL TIE AND TREATING
140 DELAWARE AVENUE
SIDNEY, NEW YORK

Prepared for:

Parratt-Wolff, Inc.
PO Box 56
5879 Fisher Road
East Syracuse, New York 13057

Prepared by:

Hager-Richter Geoscience, Inc.
846 Main Street
Fords, New Jersey 08863

File 22RG24
March 2023

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HAGER-RICHTER
GEOSCIENCE, INC.

Tadpole	Structure Category (Symbol Color)	Description
	Bedding (Brown)	Planar geologic feature interpreted as bedding
	Fracture Rank 1 (Light Blue)	Minor Fracture - not distinct and may not be continuous around the borehole
	Fracture Rank 2 (Blue)	Intermediate Fracture - distinct and continuous around the borehole with little or no apparent aperture
	Fracture Rank 3 (Red)	Major Fracture - distinct and continuous around the borehole with apparent aperture

Figure 1. Key to bedrock structure categories.

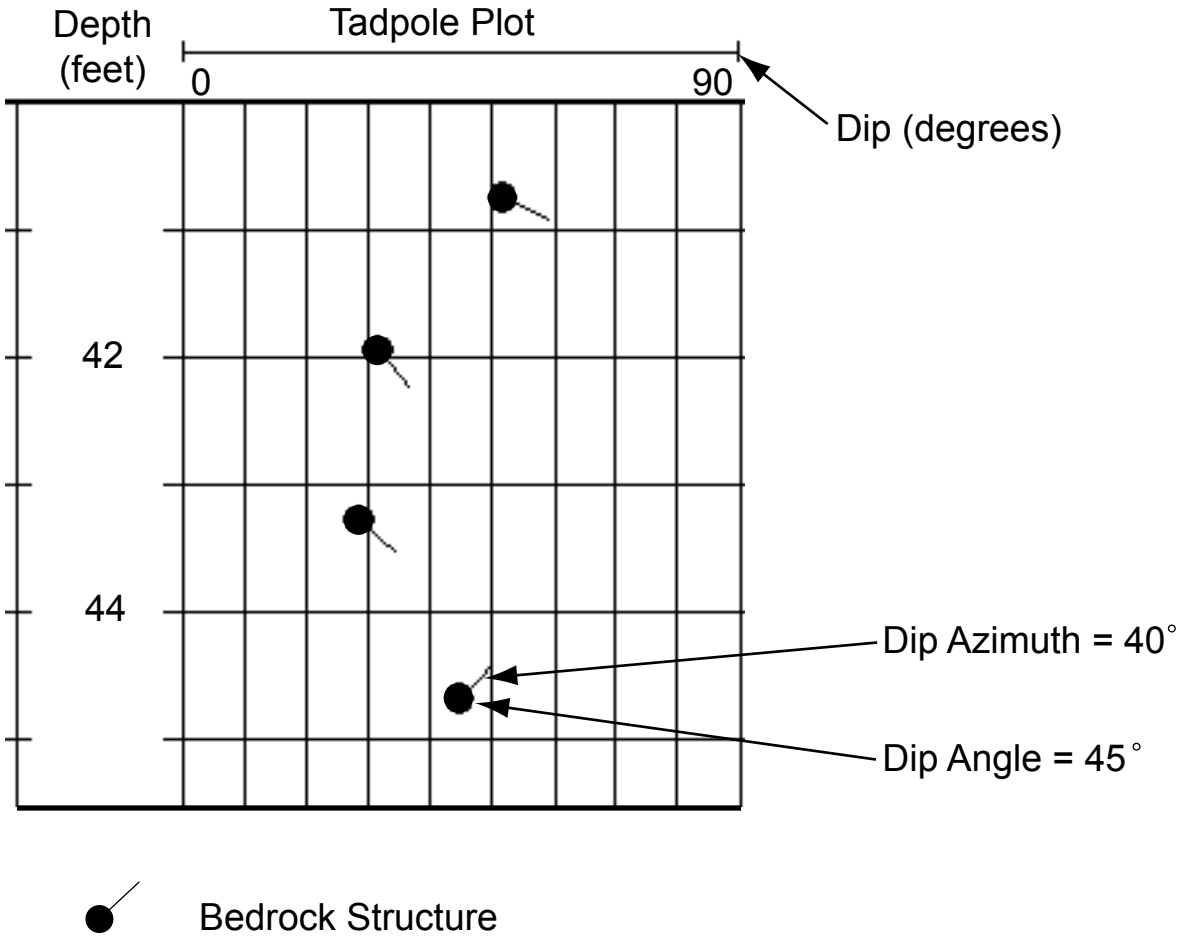


Figure 2. Tadpole plot explanation. The orientation of the bedrock structures is graphically displayed by a tadpole consisting of a circle, the head, and a line, the tail. The position of the head, left to right on the tadpole plot, gives the dip angle of the structure. The left side of the track indicates a dip angle of 0°, and the right side of the track indicates a dip angle of 90° from horizontal. The orientation of the tail gives the dip azimuth of the structure and can be read like a compass. The tail pointing directly up is 0°, north.

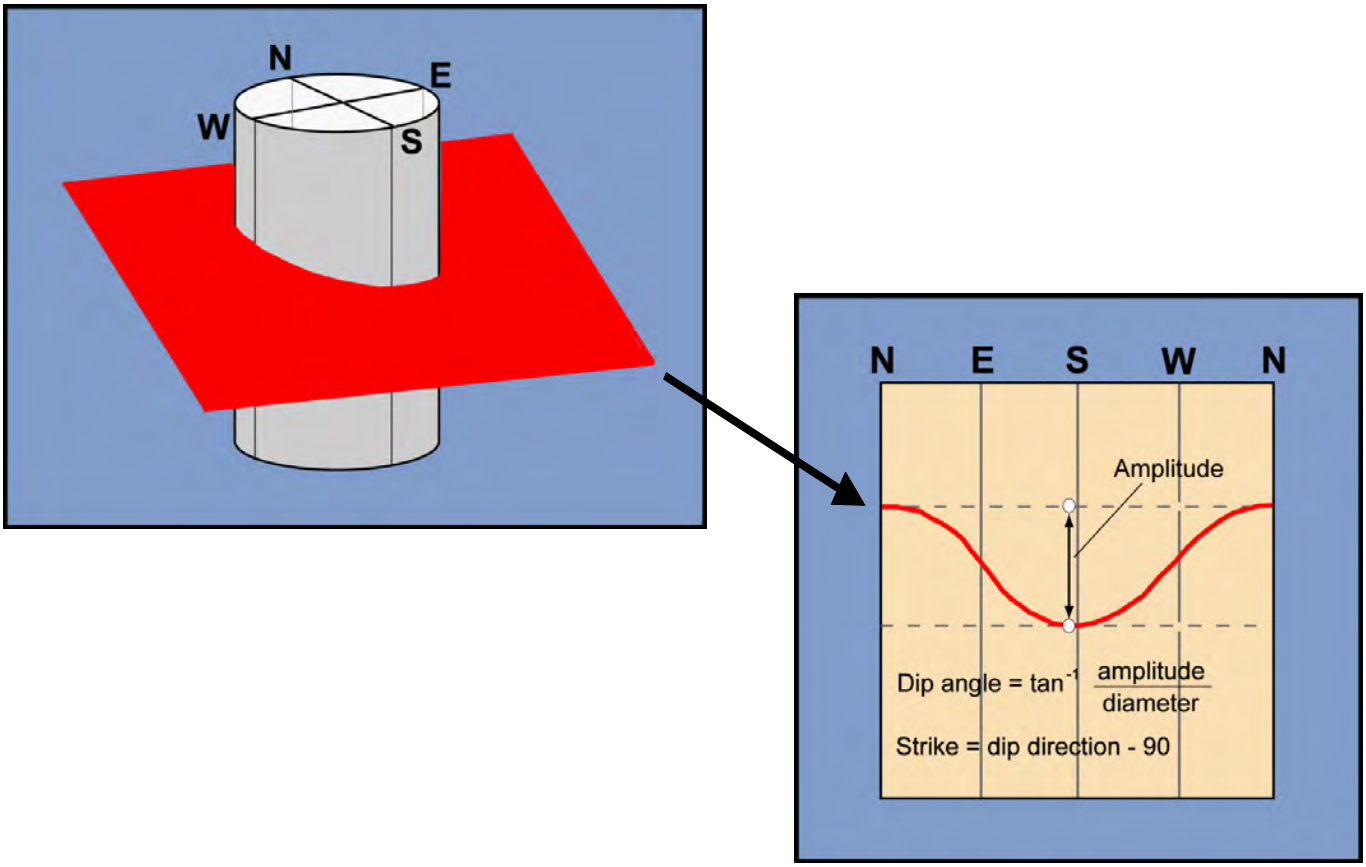


Figure 3. Televiewer explanation. The image on the left depicts a planar structure in red, such as a fracture or bedding plane, intersected by a borehole. The image on the right depicts the same structure unwrapped as it would be displayed in an optical televiewer (OTV) or acoustic televiewer (ATV) log.

Figure modified from: Garfield, R.L., Day-Lewis, F.D., Gray, M.B., Johnson, C.D., Williams, J.H. and Day-Lewis, A.D.F., 2003, Fractured-Rock Aquifer Characterization within a Regional Geologic Context: Results from the Bucknell University Hydrogeophysics Test Site, GSA Northeastern Section, 38th Annual Meeting, Paper No. 25-19.

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MW-22 - BOREHOLE GEOPHYSICAL LOGS

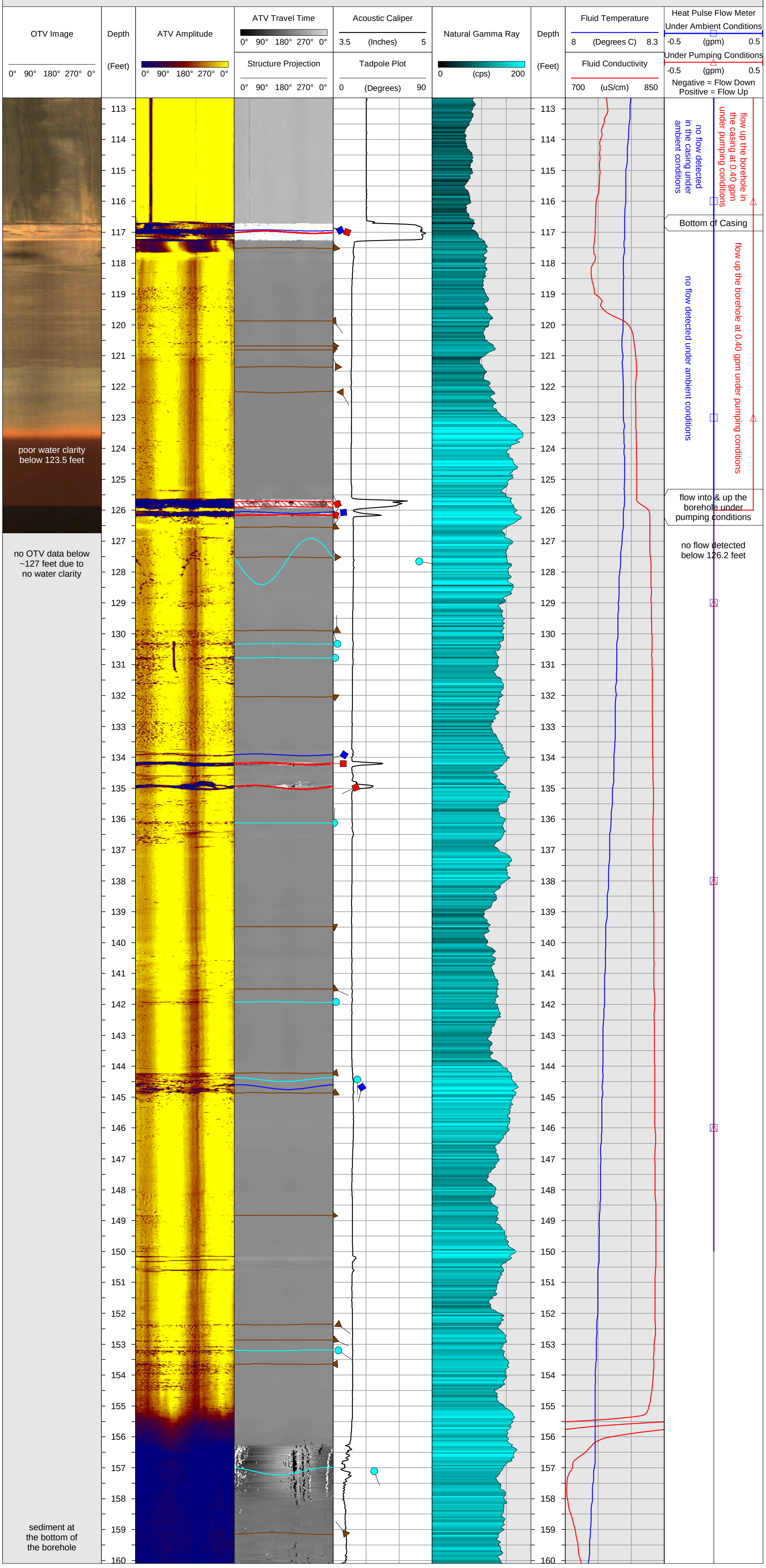
DATE LOGGED: November 17, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	1.2 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	3.8 Inches (HQ-Cored)
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	16.7 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

MW-22 - Borehole Geophysical Logs



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SB-BR-04 - BOREHOLE GEOPHYSICAL LOGS

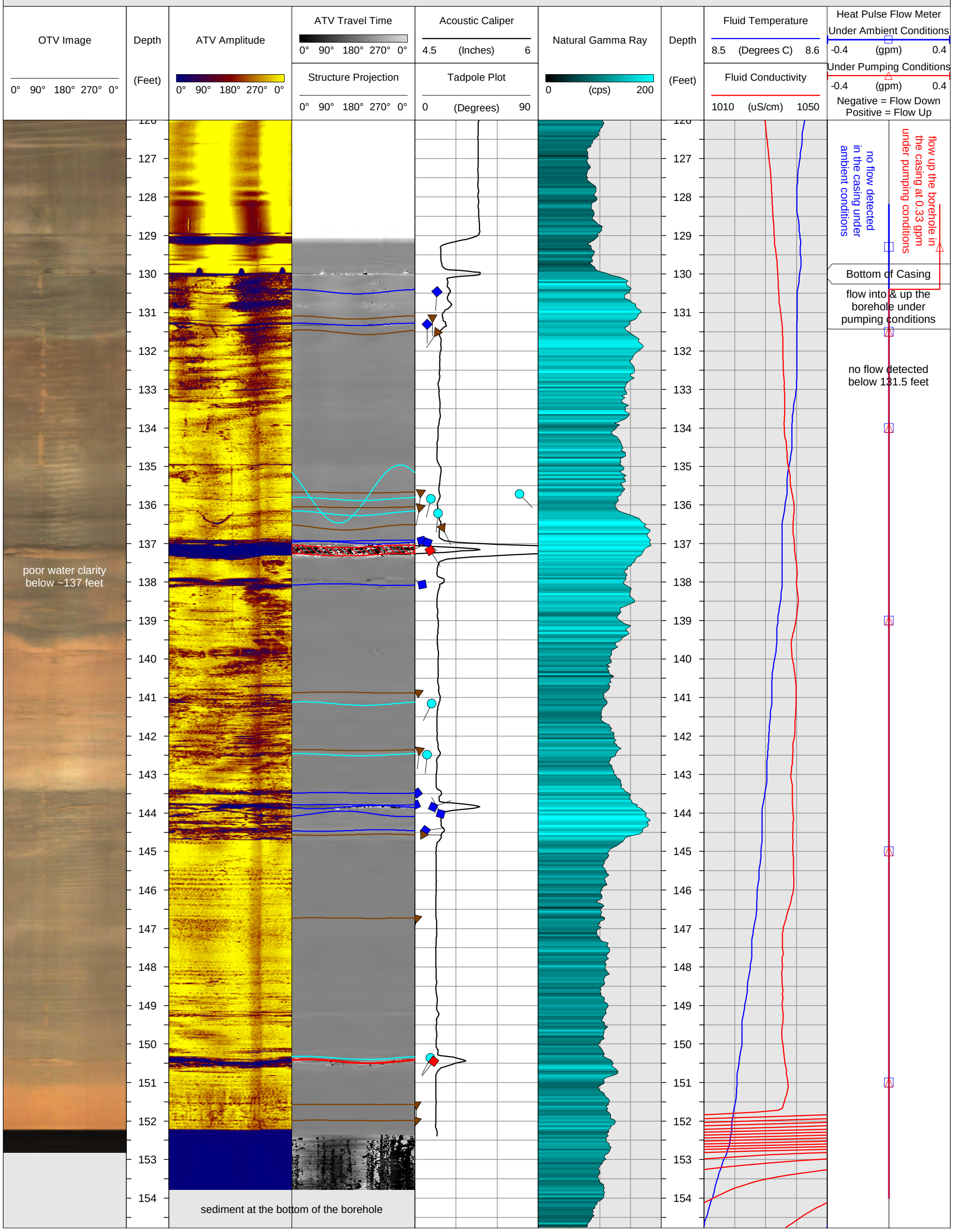
DATE LOGGED: November 16, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.4 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	25.4 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-04 - Borehole Geophysical Logs



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SB-BR-05 - BOREHOLE GEOPHYSICAL LOGS

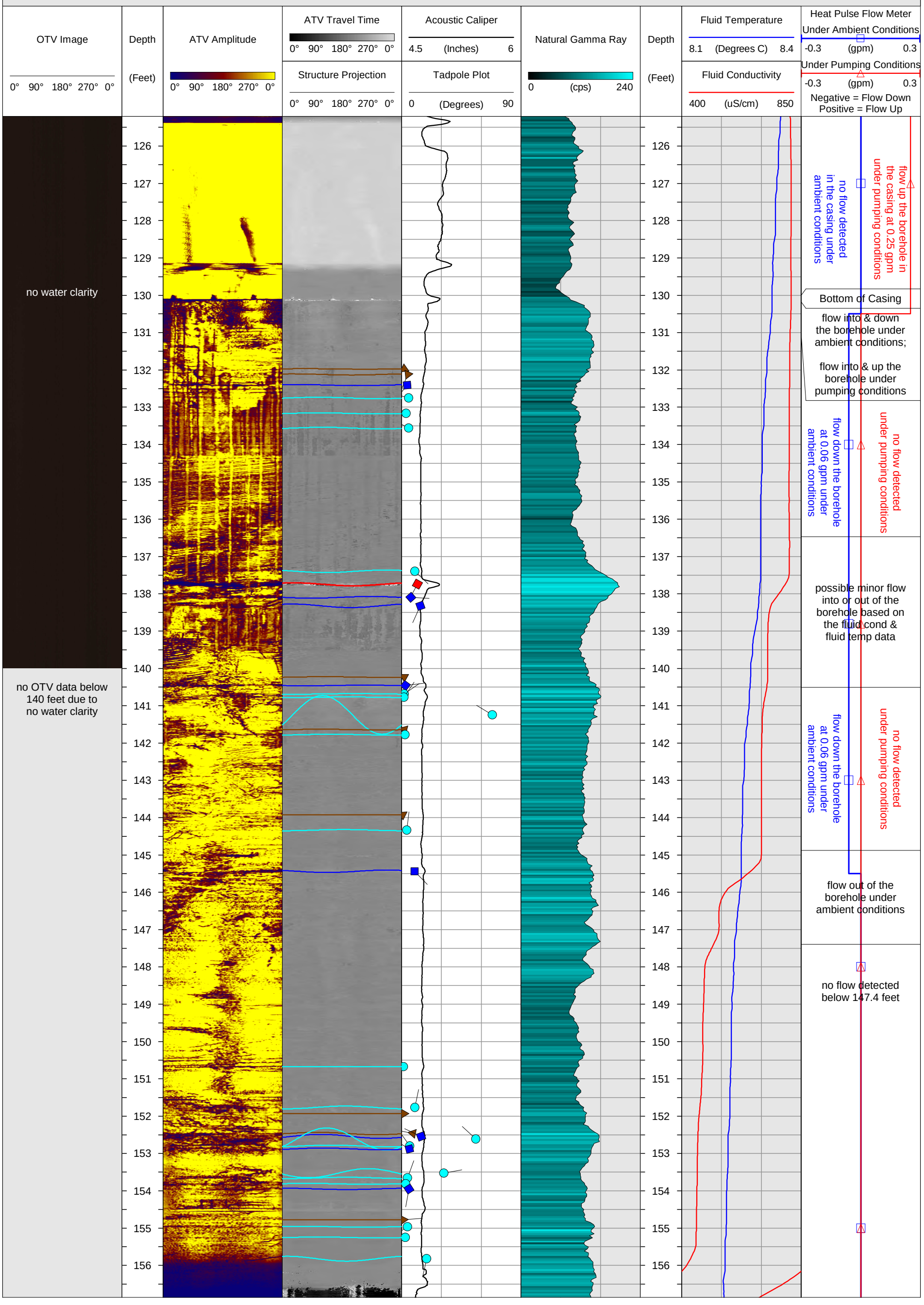
DATE LOGGED: January 11 & 12, 2023

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio	TOP OF CASING:	0.3 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	14.2 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-05 - Borehole Geophysical Logs



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SB-BR-06 - BOREHOLE GEOPHYSICAL LOGS

DATE LOGGED: January 11, 2023

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio	TOP OF CASING:	0.0 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	13.2 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-06 - Borehole Geophysical Logs

OTV Image (0° 90° 180° 270° 0°)

poor water clarity below ~114.5 feet

no OTV data below 148 feet due to no water clarity

Depth (Feet)

ATV Amplitude (0° 90° 180° 270° 0°)

ATV Travel Time (0° 90° 180° 270° 0°)

Structure Projection (0° 90° 180° 270° 0°)

Acoustic Caliper (4.5 (inches) 6)

Tadpole Plot (0 (Degrees) 90)

Natural Gamma Ray (0 (cps) 240)

Depth (Feet)

Fluid Temperature (7.8 (Degrees C) 7.95)

Fluid Conductivity (350 (uS/cm) 440)

Heat Pulse Flow Meter
Under Ambient Conditions (-0.3 (gpm) 0.3)
Under Pumping Conditions (-0.3 (gpm) 0.3)
Negative = Flow Down
Positive = Flow Up

flow up the borehole at 0.25 gpm under ambient conditions

flow up the borehole at 0.25 gpm under pumping conditions

Bottom of Casing

flow into & up the borehole under pumping conditions

no flow detected under ambient conditions

flow up the borehole at 0.06 gpm under pumping conditions

flow into & up the borehole under pumping conditions

no flow detected below 134.5 feet

no borehole flow interp. or bedrock structure interp. below ~152 feet due to sediment in the borehole

sediment at the bottom of the borehole

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SB-BR-07 - BOREHOLE GEOPHYSICAL LOGS

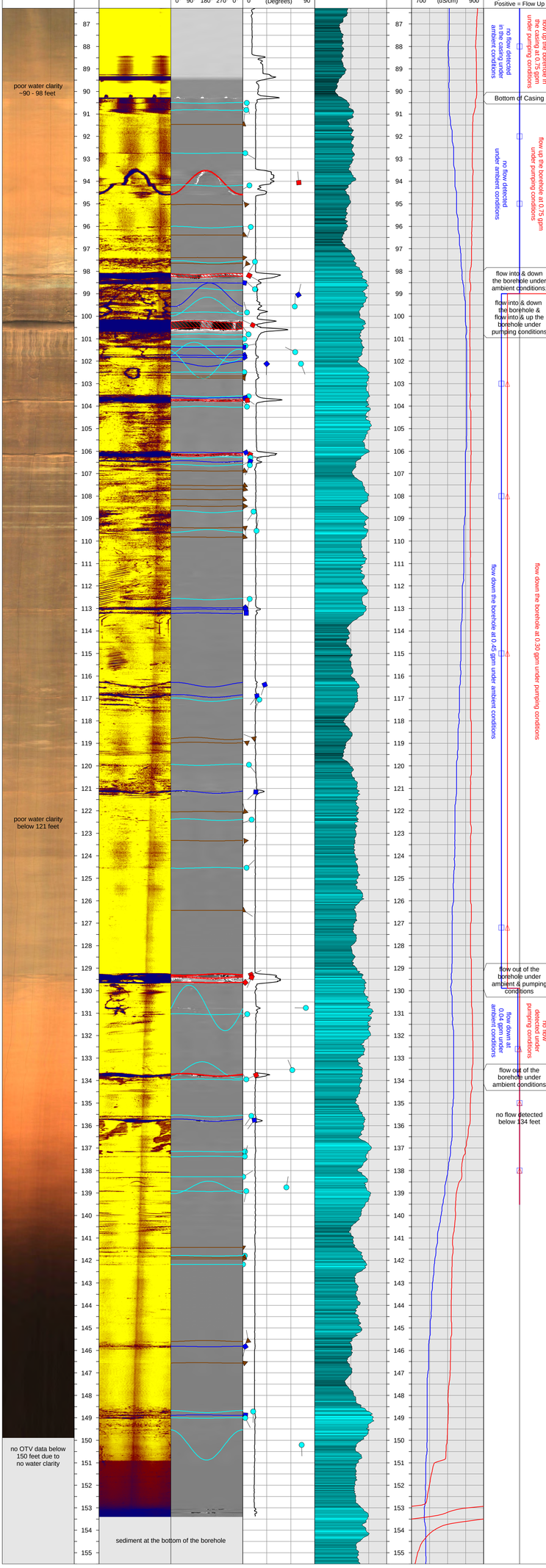
DATE LOGGED: January 12, 2023

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio	TOP OF CASING:	0.1 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	14.4 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-07 - Borehole Geophysical Logs



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SB-BR-10 - BOREHOLE GEOPHYSICAL LOGS

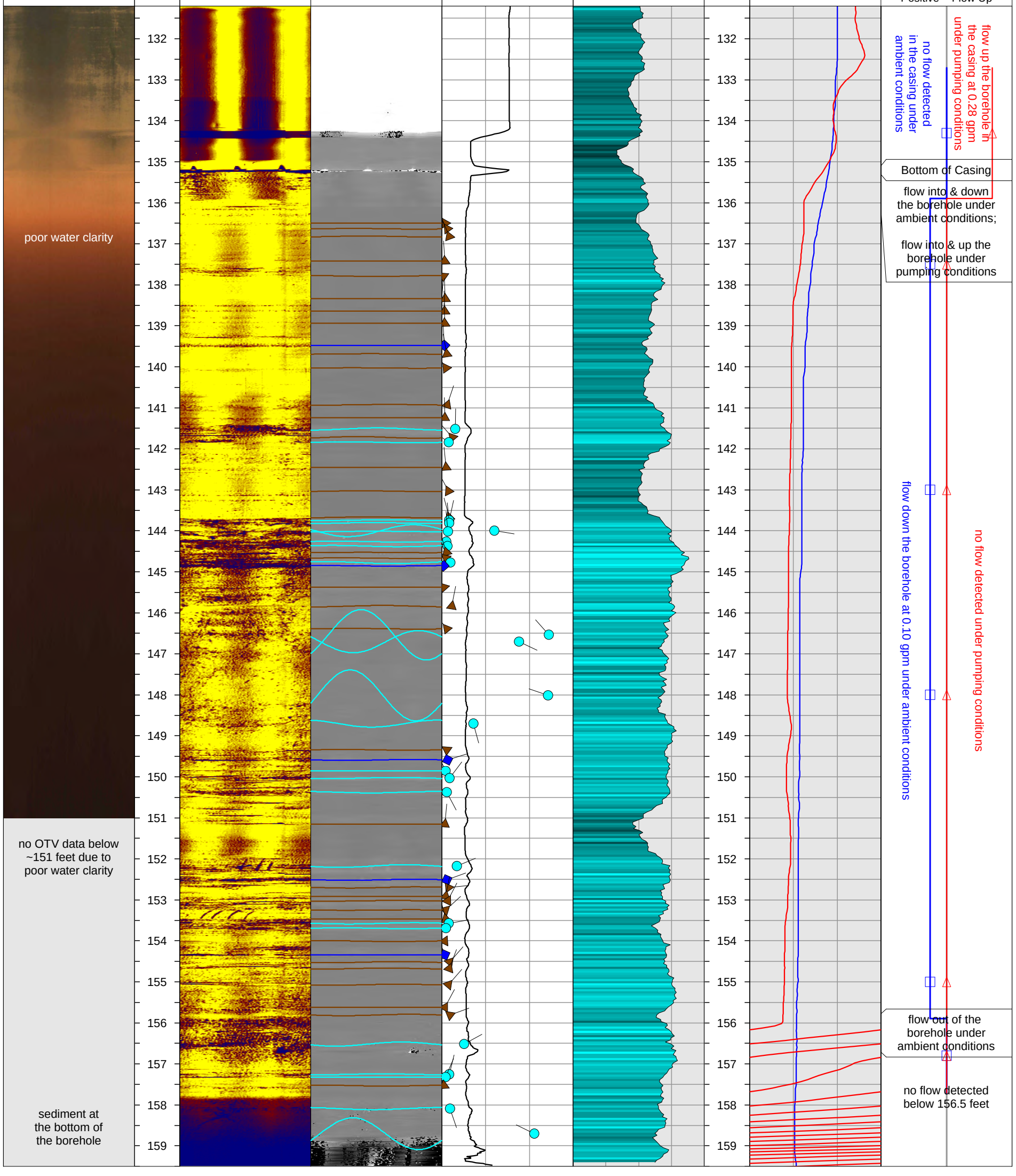
DATE LOGGED: November 16, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.2 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	19.2 Feet

STRUCTURE LEGEND

Fracture Rank 1 Fracture Rank 2 Bedding

SB-BR-10 - Borehole Geophysical Logs



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SB-BR-11 - BOREHOLE GEOPHYSICAL LOGS

DATE LOGGED: December 8 & 9, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.2 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	21.6 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-11 - Borehole Geophysical Logs

OTV Image: 0° 90° 180° 270° 0°

Depth (Feet)

ATV Amplitude: 0° 90° 180° 270° 0°

ATV Travel Time: 0° 90° 180° 270° 0°

Structure Projection: 0° 90° 180° 270° 0°

Acoustic Caliper: 4.5 (Inches) 6

Tadpole Plot: 0 (Degrees) 90

Natural Gamma Ray: 0 (cps) 240

Depth (Feet)

Fluid Temperature: 8.9 (Degrees C) 9.2

Fluid Conductivity: 400 (uS/cm) 1000

Heat Pulse Flow Meter
Under Ambient Conditions: -0.4 (gpm) 0.4
Under Pumping Conditions: -0.4 (gpm) 0.4
Negative = Flow Down
Positive = Flow Up

poor water clarity

no flow detected in the casing under ambient conditions

flow up the borehole in the casing at 0.35 gpm under pumping conditions

Bottom of Casing

no flow detected

flow up at 0.35 gpm

flow into & down the borehole under ambient conditions;

flow into & up the borehole under pumping conditions

flow down the borehole at 0.15 gpm under ambient conditions

flow up the borehole at 0.16 gpm under pumping conditions

flow out of the borehole under ambient conditions;

flow into & up the borehole under pumping conditions

no flow detected below 133 feet

no OTV data below 140 feet due to poor water clarity

sediment at the bottom of the borehole

HAGER-RICHTER GEOSCIENCE, INC.

Atkinson, NH
Tel: 603.893.9944

Fords, NJ
Tel: 732.661.0555

SB-BR-12 - BOREHOLE GEOPHYSICAL LOGS

DATE LOGGED: November 15, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.3 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	25.2 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-12 - Borehole Geophysical Logs

OTV Image: 0° 90° 180° 270° 0°

Depth (Feet)

ATV Amplitude: 0° 90° 180° 270° 0°

ATV Travel Time: 0° 90° 180° 270° 0°

Structure Projection: 0° 90° 180° 270° 0°

Acoustic Caliper: 4.5 (Inches) 6

Tadpole Plot: 0 (Degrees) 90

Natural Gamma Ray: 0 (cps) 200

Depth (Feet)

Fluid Temperature: 8.8 (Degrees C) 9.2

Fluid Conductivity: 800 (uS/cm) 1000

Heat Pulse Flow Meter
Under Ambient Conditions: -0.4 (gpm) 0.4
Under Pumping Conditions: -0.4 (gpm) 0.4
Negative = Flow Down
Positive = Flow Up

poor water clarity below ~136 feet

sediment at the bottom of the borehole

no flow detected in the casing under ambient conditions

flow up the borehole in the casing at 0.35 gpm under pumping conditions

Bottom of Casing

flow into & down the borehole under ambient conditions;

flow into & up the borehole under pumping conditions

flow down the borehole at 0.08 gpm under ambient conditions

flow up the borehole at 0.23 gpm under pumping conditions

flow out of the borehole under ambient conditions;

flow into & up the borehole under pumping conditions

no flow detected below 129 feet with the HPFM

possible minor flow into or out of the borehole based on the fluid cond data

HAGER-RICHTER GEOSCIENCE, INC.

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SB-BR-13 - BOREHOLE GEOPHYSICAL LOGS

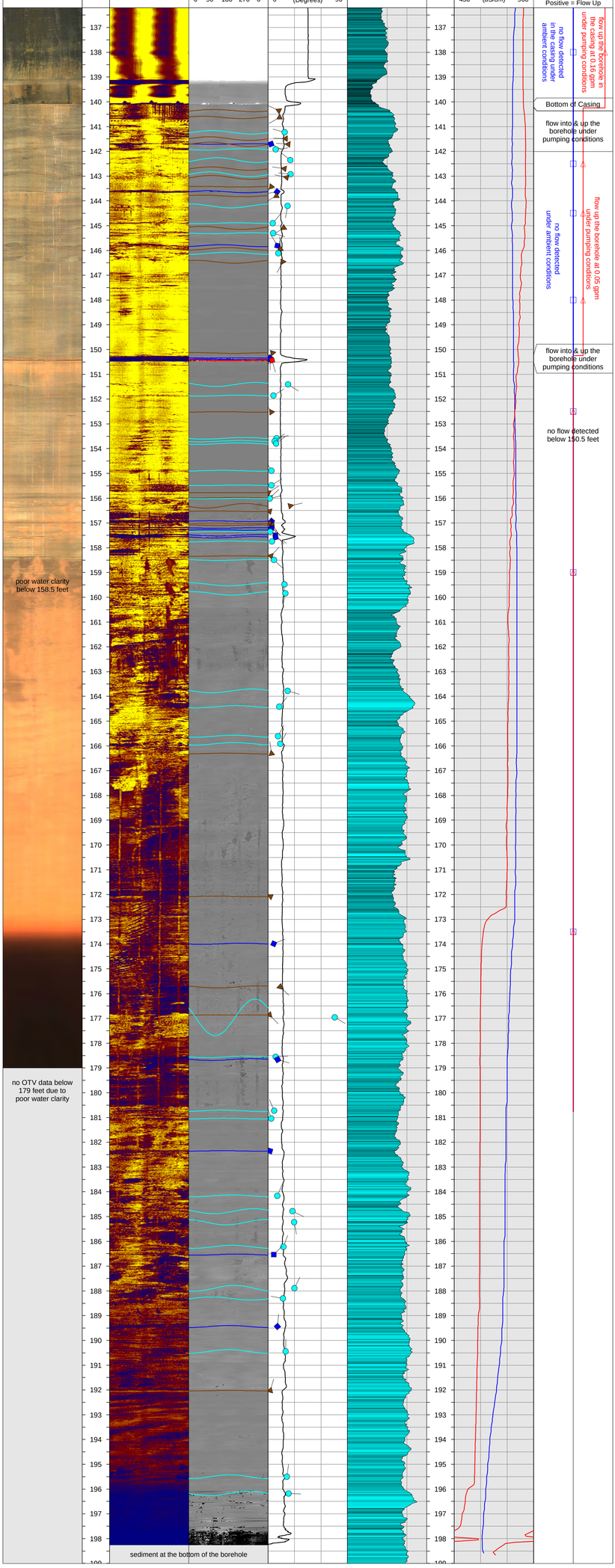
DATE LOGGED: December 8, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.3 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	25.0 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-13 - Borehole Geophysical Logs



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SB-BR-LIF01 - BOREHOLE GEOPHYSICAL LOGS

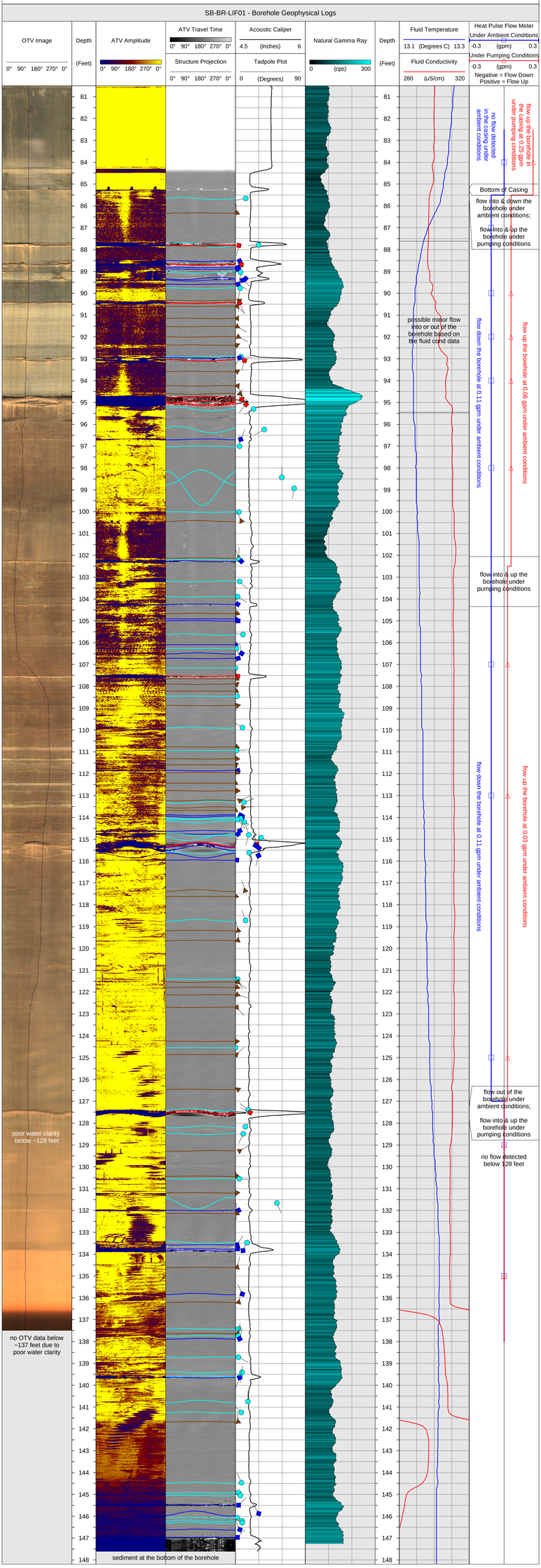
DATE LOGGED: October 25, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.2 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	16.0 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-LIF01 - Borehole Geophysical Logs



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SB-BR-LIF02 - BOREHOLE GEOPHYSICAL LOGS

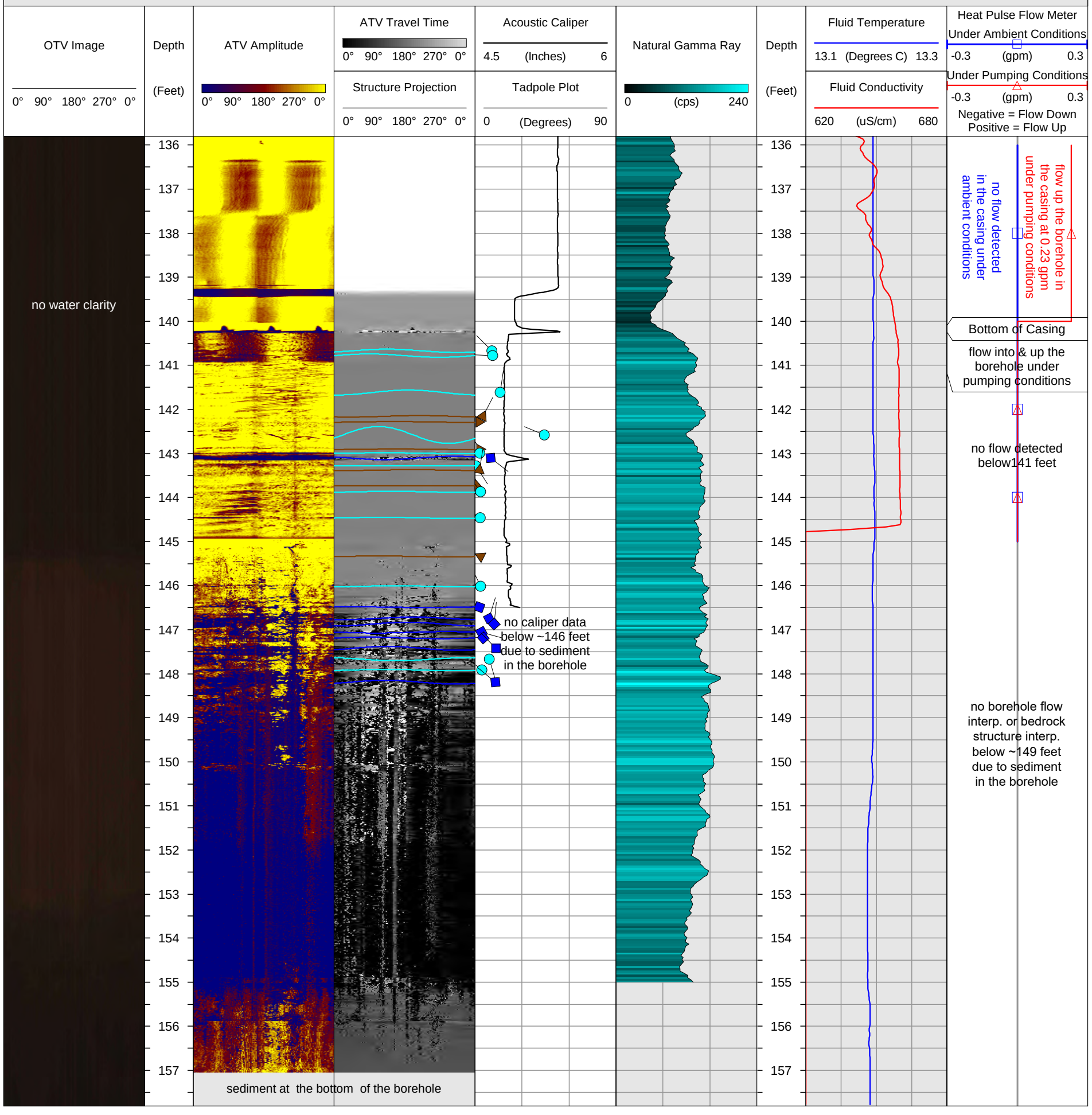
DATE LOGGED: October 24, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.1 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	16.8 Feet

STRUCTURE LEGEND

Fracture Rank 1 Fracture Rank 2 Bedding

SB-BR-LIF02 - Borehole Geophysical Logs



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SB-BR-LIF16 - BOREHOLE GEOPHYSICAL LOGS

DATE LOGGED: September 27 & 28, 2022

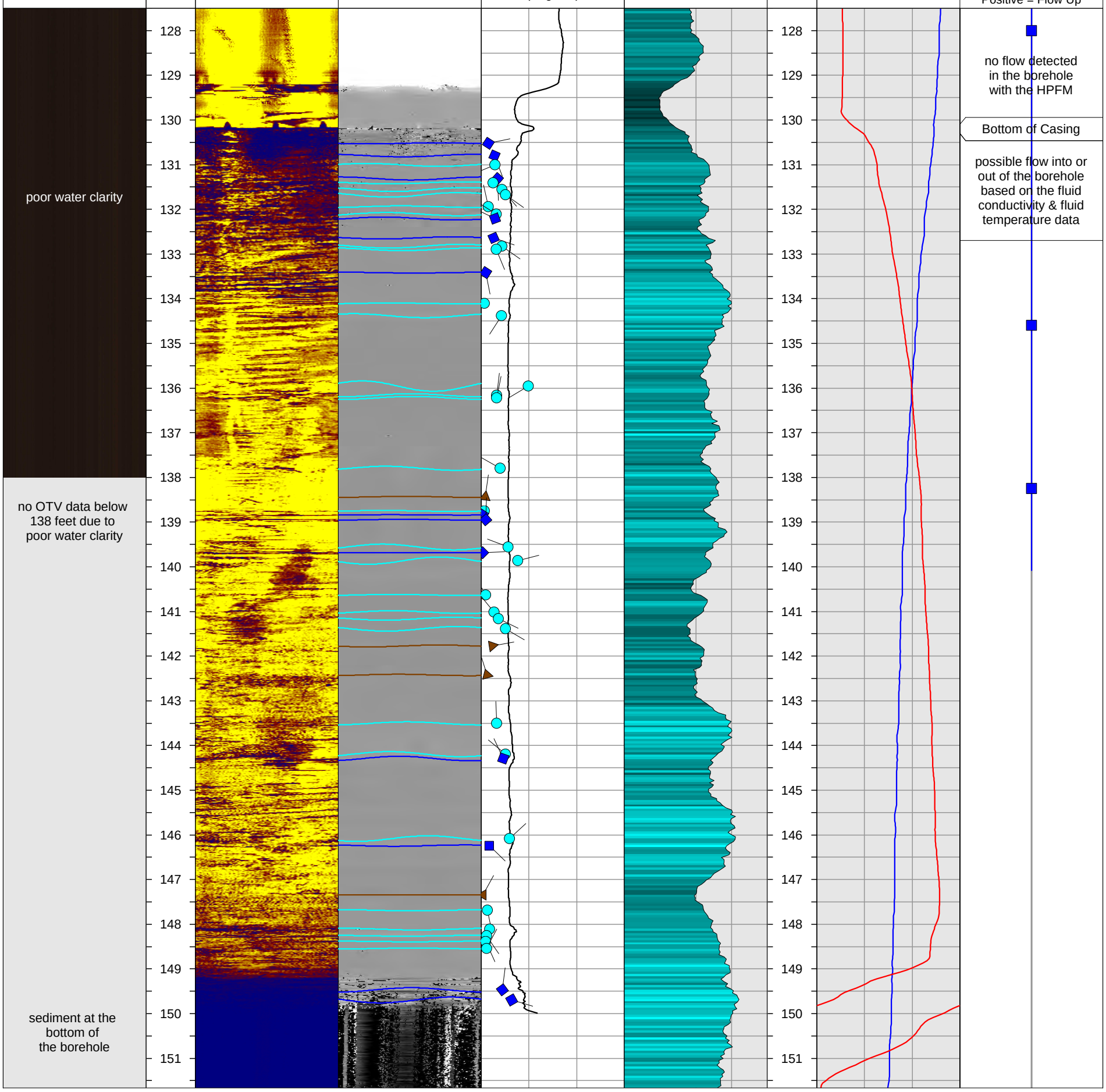
CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio	TOP OF CASING:	0.1 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	22.9 - 31.5 Feet

STRUCTURE LEGEND

Fracture Rank 1 Fracture Rank 2 Bedding

NOTES: At the time of the borehole geophysical logging of borehole SB-BR-LIF16, the borehole was still recovering (filling with water) after drilling activities. Because water was still filling the borehole at the time of logging, the borehole was under stressed conditions during the HPFM testing, which mimic stressed conditions similar to HPFM logging under pumping conditions. Based on water levels taken while the borehole was recovering, the borehole was filling at a rate of 0.002 gpm, which is well under the 0.01 gpm detectable limit of the HPFM.

SB-BR-LIF16 - Borehole Geophysical Logs



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SB-BR-LIF18 - BOREHOLE GEOPHYSICAL LOGS

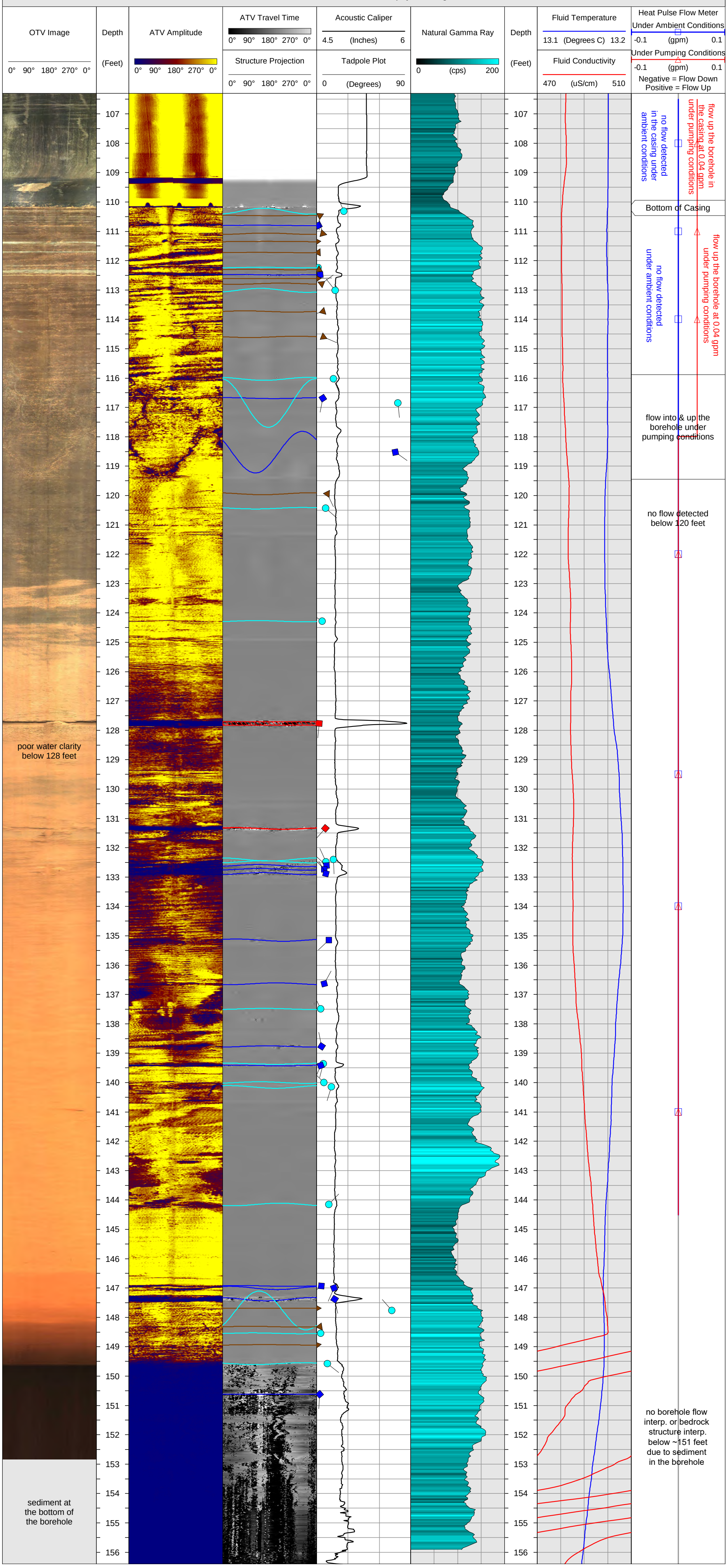
DATE LOGGED: September 27, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio	TOP OF CASING:	0.2 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	15.6 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-LIF18 - Borehole Geophysical Logs



HAGER-RICHTER GEOSCIENCE, INC.

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SB-BR-LIF22 - BOREHOLE GEOPHYSICAL LOGS

DATE LOGGED: October 24, 2022

CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	LOG DATUM:	Ground Surface
LOCATION:	Sidney, New York	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGGING GEOPHYSICIST:	Mikko Aarnio & Tim Williams	TOP OF CASING:	0.2 Feet Above the Ground Surface
CLIENT REP. ON-SITE:	Matthew T. Keaveney	BOREHOLE DIAMETER:	4.8 Inches
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	WATER LEVEL DEPTH:	2.0 Feet

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

SB-BR-LIF22 - Borehole Geophysical Logs

OTV Image: 0° 90° 180° 270° 0°

Depth (Feet): 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152

ATV Amplitude: 0° 90° 180° 270° 0°

ATV Travel Time: 0° 90° 180° 270° 0°

Structure Projection: 0° 90° 180° 270° 0°

Acoustic Caliper: 4.5 (Inches) 6

Tadpole Plot: 0 (Degrees) 90

Natural Gamma Ray: 0 (cps) 200

Depth (Feet): 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152

Fluid Temperature: 13.5 (Degrees C) 13.7

Fluid Conductivity: 300 (uS/cm) 580

Heat Pulse Flow Meter
Under Ambient Conditions: -0.2 (gpm) 0.2
Under Pumping Conditions: -0.2 (gpm) 0.2
Negative = Flow Down
Positive = Flow Up

poor water clarity

sediment at the bottom of the borehole

no flow detected in the casing under ambient conditions

flow up the borehole in the casing at 0.10 gpm under pumping conditions

Bottom of Casing

no flow detected under ambient conditions

flow up the borehole at 0.10 gpm under pumping conditions

flow into & up the borehole under pumping conditions

no flow detected under ambient conditions

flow up the borehole at 0.07 gpm under pumping conditions

flow into & up the borehole under pumping conditions

possible minor flow into or out of the borehole based on the fluid cond data

no flow detected below ~136 feet

HAGER-RICHTER GEOSCIENCE, INC.	
MW-22 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 17, 2022
LOG DATUM	Ground Surface

MW-22 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	**Comments** (flow was not detected in the borehole under ambient conditions)
0.0	Ground Surface
16.7	Ambient Water Level
18.0 - 21.0	Location of Pump for HPFM Under Pumping Conditions
21.0 - 116.7	flow up the borehole in the casing at 0.40 gpm under pumping conditions
116.7	Bottom of the ~4-Inch Steel Casing
116.7 - 125.6	flow up the borehole at 0.40 gpm under pumping conditions
125.6 - 126.2	flow into & up the borehole under pumping conditions
126.2 - 160.1	no flow detected under pumping conditions
160.1	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-04 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 16, 2022
LOG DATUM	Ground Surface

SB-BR-04 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	**Comments** (flow was not detected in the borehole under ambient conditions)
0.0	Ground Surface
25.4	Ambient Water Level
29.0 - 30.0	Location of Pump for HPFM Under Pumping Conditions
30.0 - 130.0	flow up the borehole in the casing at 0.33 gpm under pumping conditions
130.0	Bottom of the ~5-Inch Steel Casing
130.0 - 131.4	flow into & up the borehole under pumping conditions
131.4 - 154.8	no flow detected under pumping conditions
154.8	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-05 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	January 11 & 12, 2023
LOG DATUM	Ground Surface

SB-BR-05 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments
0.0	Ground Surface
14.2	Ambient Water Level
22.0 - 24.0	Location of Pump for HPFM Under Pumping Conditions
24.0 - 130.1	no flow detected in the casing under ambient conditions flow up the borehole in the casing at 0.25 gpm under pumping conditions
130.1	Bottom of the ~5-Inch Steel Casing
130.1 - 131.0	flow into & down the borehole under ambient conditions flow into & up the borehole under pumping conditions
131.0 - 136.5	flow down the borehole at 0.06 gpm under ambient conditions no flow detected under pumping conditions
136.5 - 140.5	possible flow into or out of the borehole based on the fluid temp & fluid cond data
140.5 - 144.9	flow down the borehole at 0.06 gpm under ambient conditions no flow detected under pumping conditions
144.9 - 147.4	flow out of the borehole under ambient conditions
147.4 - 156.9	no flow detected under ambient conditions no flow detected under pumping conditions
156.9	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-06 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	January 11, 2023
LOG DATUM	Ground Surface

SB-BR-06 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
0.0	Ground Surface
13.2	Ambient Water Level
23.0 - 24.0	Location of Pump for HPFM Under Pumping Conditions
24.0 - 90.4	flow up the borehole in the casing at 0.25 gpm under pumping conditions
90.4	Bottom of the ~5-Inch Steel Casing
90.4 - 114.1	flow up the borehole at 0.25 gpm under pumping conditions
114.1 - 114.7	flow into & up the borehole under pumping conditions
114.7 - 133.7	flow up the borehole at 0.06 gpm under pumping conditions
133.7 - 134.6	flow into & up the borehole under pumping conditions
134.6 - 158.2	no flow detected under pumping conditions
158.2	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-07 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	January 12, 2023
LOG DATUM	Ground Surface

SB-BR-07 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments
0.0	Ground Surface
14.4	Ambient Water Level
21.0 - 22.0	Location of Pump for HPFM Under Pumping Conditions
22.0 - 90.3	no flow detected in the casing under ambient conditions flow up the borehole in the casing at 0.75 gpm under pumping conditions
90.3	Bottom of the ~5-Inch Steel Casing
90.3 - 98.0	no flow detected under ambient conditions flow up the borehole at 0.75 gpm under pumping conditions
98.0 - 100.8	flow into & down the borehole under ambient conditions flow into & down the borehole under pumping conditions flow into & up the borehole under pumping conditions
100.8 - 129.1	flow down the borehole at 0.45 gpm under ambient conditions flow down the borehole at 0.30 gpm under pumping conditions
129.1 - 129.9	flow out of the borehole under ambient conditions flow out of the borehole under pumping conditions
129.9 - 133.6	flow down the borehole at 0.04 gpm under ambient conditions no flow detected under pumping conditions
133.6 - 134.1	flow out of the borehole under ambient conditions
134.1 - 155.5	no flow detected under ambient conditions no flow detected under pumping conditions
155.5	Bottom of the Borehole (based on the geophysical logging)

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HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-10 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 16, 2022
LOG DATUM	Ground Surface

SB-BR-10 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments
0.0	Ground Surface
19.2	Ambient Water Level
25.0 - 30.0	Location of Pump for HPFM Under Pumping Conditions
30.0 - 135.2	no flow detected in the casing under ambient conditions flow up the borehole in the casing at 0.28 gpm under pumping conditions
135.2	Bottom of the ~5-Inch Steel Casing
135.2 - 136.3	flow into & down the borehole under ambient conditions flow into & up the borehole under pumping conditions
136.3 - 155.8	flow down the borehole at 0.10 gpm under ambient conditions no flow detected under pumping conditions
155.8 - 156.7	flow out of the borehole under ambient conditions
156.7 - 159.5	no flow detected under ambient conditions no flow detected under pumping conditions
159.5	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-11 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	December 8 & 9, 2022
LOG DATUM	Ground Surface

SB-BR-11 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments
0.0	Ground Surface
21.6	Ambient Water Level
23.0 - 28.0	Location of Pump for HPFM Under Pumping Conditions
28.0 - 110.3	no flow detected in the casing under ambient conditions flow up the borehole in the casing at 0.35 gpm under pumping conditions
110.3	Bottom of the ~5-Inch Steel Casing
110.3 - 113.0	no flow detected under ambient conditions flow up the borehole at 0.35 gpm under pumping conditions
113.0 - 114.4	flow into & down the borehole under ambient conditions flow into & up the borehole under pumping conditions
114.4 - 131.1	flow down the borehole at 0.15 gpm under ambient conditions flow up the borehole at 0.16 gpm under pumping conditions
131.1 - 132.7	flow out of the borehole under ambient conditions flow into & up the borehole under pumping conditions
132.7 - 161.5	no flow detected under ambient conditions no flow detected under pumping conditions
161.5	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-12 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 15, 2022
LOG DATUM	Ground Surface

SB-BR-12 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments
0.0	Ground Surface
25.2	Ambient Water Level
27.0 - 32.0	Location of Pump for HPFM Under Pumping Conditions
32.0 - 115.2	no flow detected in the casing under ambient conditions flow up the borehole in the casing at 0.35 gpm under pumping conditions
115.2	Bottom of the ~5-Inch Steel Casing
115.2 - 116.5	flow into & down the borehole under ambient conditions flow into & up the borehole under pumping conditions
116.5 - 127.4	flow down the borehole at 0.08 gpm under ambient conditions flow up the borehole at 0.23 gpm under pumping conditions
127.4 - 128.9	flow out of the borehole under ambient conditions flow into & up the borehole under pumping conditions
128.9 - 135.7	no flow detected under ambient conditions no flow detected under pumping conditions
135.7 - 136.4	possible minor flow into or out of the borehole based on the fluid conductivity data
136.4 - 155.1	no flow detected under ambient conditions no flow detected under pumping conditions
155.1	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-13 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	December 8, 2022
LOG DATUM	Ground Surface

SB-BR-13 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	**Comments** (flow was not detected in the borehole under ambient conditions)
0.0	Ground Surface
25.0	Ambient Water Level
27.0 - 32.0	Location of Pump for HPFM Under Pumping Conditions
32.0 - 140.1	flow up the borehole in the casing at 0.16 gpm under pumping conditions
140.1	Bottom of the ~5-Inch Steel Casing
140.1 - 142.0	flow into & up the borehole under pumping conditions
142.0 - 150.2	flow up the borehole at 0.05 gpm under pumping conditions
150.2 - 150.5	flow into & up the borehole under pumping conditions
150.5 - 199.0	no flow detected under pumping conditions
199.0	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF01 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	October 25, 2022
LOG DATUM	Ground Surface

SB-BR-LIF01 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments
0.0	Ground Surface
16.0	Ambient Water Level
19.0 - 20.0	Location of Pump for HPFM Under Pumping Conditions
20.0 - 85.2	no flow detected in the casing under ambient conditions flow up the borehole in the casing at 0.25 gpm under pumping conditions
85.2	Bottom of the ~5-Inch Steel Casing
85.2 - 85.5	flow into & down the borehole under ambient conditions flow into & up the borehole under pumping conditions
85.5 - 87.6	flow down the borehole at 0.11 gpm under ambient conditions flow up the borehole at 0.06 gpm under pumping conditions
87.6 - 95.5	possible minor flow into or out of the borehole based on the fluid conductivity data
95.5 - 102.1	flow down the borehole at 0.11 gpm under ambient conditions flow up the borehole at 0.06 gpm under pumping conditions
102.1 - 104.3	flow into & up the borehole under pumping conditions
104.3 - 127.3	flow down the borehole at 0.11 gpm under ambient conditions flow up the borehole at 0.03 gpm under pumping conditions
127.3 - 127.8	flow out of the borehole under ambient conditions flow into & up the borehole under pumping conditions
127.8 - 148.2	no flow detected under ambient conditions no flow detected under pumping conditions
148.2	Bottom of the Borehole (based on the geophysical logging)

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HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF02 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	October 24, 2022
LOG DATUM	Ground Surface

SB-BR-LIF02 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
0.0	Ground Surface
16.8	Ambient Water Level
19.0 - 20.0	Location of Pump for HPFM Under Pumping Conditions
20.0 - 140.1	flow up the borehole in the casing at 0.23 gpm under pumping conditions
140.1	Bottom of the ~5-Inch Steel Casing
140.1 - 141.2	flow into & up the borehole under pumping conditions
141.2 - 157.8	no flow detected under pumping conditions
157.8	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF16 - Summary of Borehole Flow	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	September 27 & 28, 2022
LOG DATUM	Ground Surface

SB-BR-LIF16 - Summary of Borehole Flow

Depth (Feet)	**Comments** Flow was not detected with the HPFM under ambient or pumping conditions. Possible flow reported in the table below is based on the fluid temperature and fluid conductivity data under ambient conditions. Flow interpreted was either not active during HPFM testing or was too low to detect with the HPFM.
0.0	Ground Surface
22.9 - 31.5	Water Level - At the time of borehole geophysical logging, the borehole was still recovering (filling with water) after drilling activities.
130.2	Bottom of the ~5-Inch Steel Casing
130.2 - 132.7	possible flow into or out of the borehole based on the fluid cond & fluid temp data
151.7	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF18 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	September 27, 2022
LOG DATUM	Ground Surface

SB-BR-LIF18 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	**Comments** (flow was not detected in the borehole under ambient conditions)
0.0	Ground Surface
15.6	Ambient Water Level
19.0 - 20.0	Location of Pump for HPFM Under Pumping Conditions
20.0 - 110.2	flow up the borehole in the casing at 0.04 gpm under pumping conditions
110.2	Bottom of the ~5-Inch Steel Casing
110.2 - 115.9	flow up the borehole at 0.04 gpm under pumping conditions
115.9 - 119.4	flow into & up the borehole under pumping conditions
119.4 - 156.4	no flow detected under pumping conditions
156.4	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF22 - Summary of Borehole Flow Under Ambient & Pumping Conditions	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	October 24, 2022
LOG DATUM	Ground Surface

SB-BR-LIF22 - Summary of Borehole Flow Under Ambient & Pumping Conditions

Depth (Feet)	Comments (flow was not detected in the borehole under ambient conditions)
0.0	Ground Surface
2.0	Ambient Water Level
19.0 - 20.0	Location of Pump for HPFM Under Pumping Conditions
20.0 - 120.2	flow up the borehole in the casing at 0.10 gpm under pumping conditions
120.2	Bottom of the ~5-Inch Steel Casing
120.2 - 125.7	flow up the borehole at 0.10 gpm under pumping conditions
125.7 - 127.1	flow into & up the borehole under pumping conditions
127.1 - 131.5	flow up the borehole at 0.07 gpm under pumping conditions
131.5 - 132.4	flow into & up the borehole under pumping conditions
132.4 - 133.9	no flow detected under pumping conditions
133.9 - 135.3	possible minor flow into or out of the borehole based on the fluid conductivity data
135.3 - 153.0	no flow detected under pumping conditions
153.0	Bottom of the Borehole (based on the geophysical logging)

HAGER-RICHTER GEOSCIENCE, INC.

Atkinson, NH
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Fords, NJ
Tel: 732.661.0555

ALL BOREHOLES - BEDROCK STRUCTURE STATISTICS PLOTS WITH CONTOURED STEREOGRAMS

DATE(S) LOGGED: September 2022 to January 2023

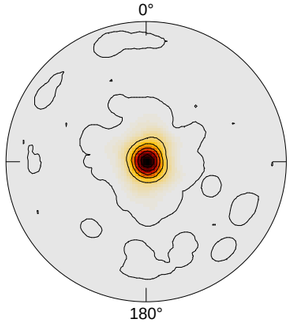
CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	ORIENTATION REFERENCE:	True North
LOCATION:	Sidney, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures

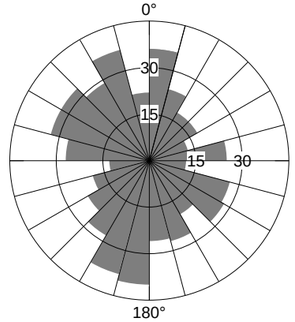
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	616	12.17	256.68
●	349	14.62	334.97
◆	48	12.18	223.46
■	219	8.41	217.14

Dip Azimuth Rose Diagram of Fractures

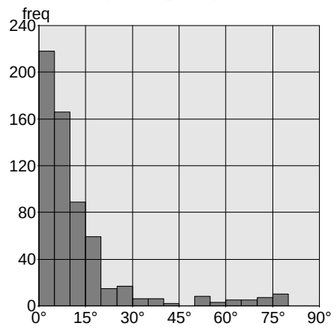
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	616.00
Mean (2D):	256.68
Std.Dev.:	131.60
Min:	0.00
Max:	360.00

Dip Angle Histogram of Fractures

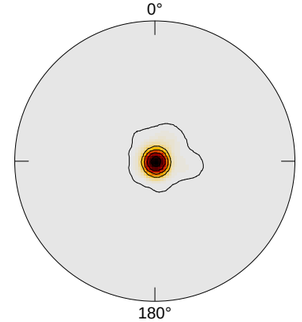
Dip Histogram (Count)



Counts:	616.00
Mean (2D):	12.17
Std.Dev.:	15.49
Min:	0.00
Max:	78.85

Stereogram - Lower Hemisphere of Bedding

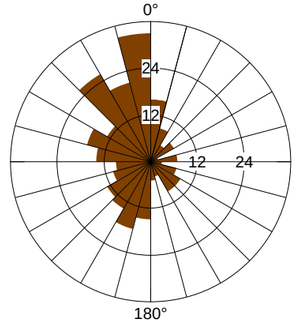
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	286	4.07	303.20
▶	286	4.07	303.20

Dip Azimuth Rose Diagram of Bedding

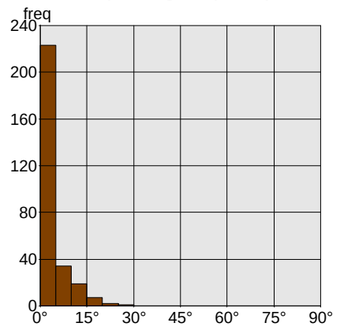
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	286.00
Mean (2D):	303.20
Std.Dev.:	91.75
Min:	0.00
Max:	358.60

Dip Angle Histogram of Bedding

Dip Histogram (Count)



Counts:	286.00
Mean (2D):	4.07
Std.Dev.:	4.20
Min:	0.00
Max:	25.29

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MW-22 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: November 17, 2022

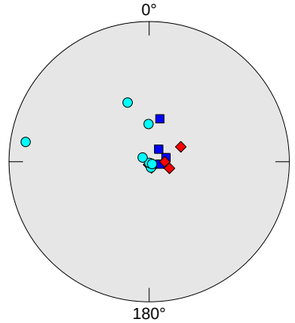
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

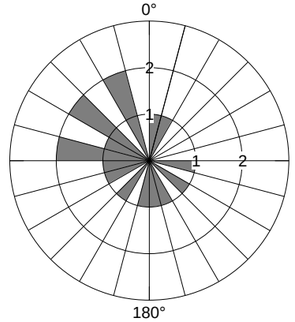
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



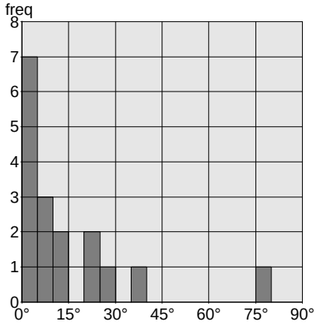
	Counts	Dip[deg]	Azi[deg]
Mean	17	14.04	275.84
■	4	12.98	237.99
◆	5	9.58	300.68
●	8	17.66	31.37

Dip Azimuth Rose Diagram of Fractures



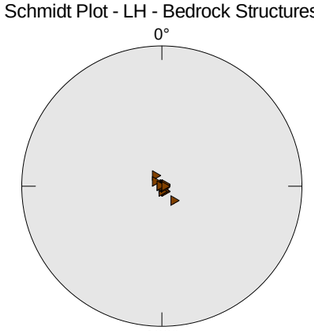
Components:	Azimuth
Counts:	17.00
Mean (2D):	275.84
Std.Dev.:	86.76
Min:	2.13
Max:	340.44

Dip Angle Histogram of Fractures



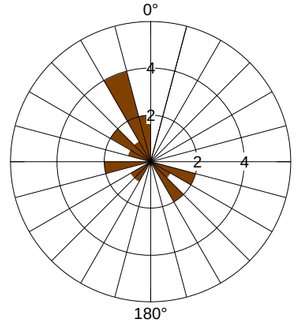
Counts:	17.00
Mean (2D):	14.04
Std.Dev.:	18.25
Min:	0.94
Max:	78.39

Stereogram - Lower Hemisphere of Bedding



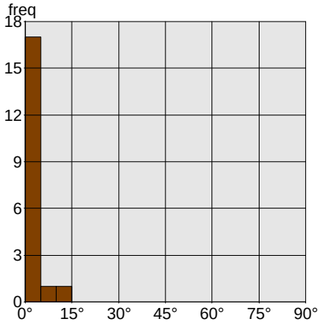
	Counts	Dip[deg]	Azi[deg]
Mean	19	2.69	306.03
▸	19	2.69	306.03

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	19.00
Mean (2D):	306.03
Std.Dev.:	89.71
Min:	111.84
Max:	358.60

Dip Angle Histogram of Bedding



Counts:	19.00
Mean (2D):	2.69
Std.Dev.:	2.57
Min:	0.26
Max:	10.99

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SB-BR-04 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: November 16, 2022

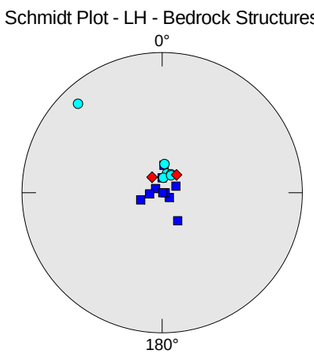
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

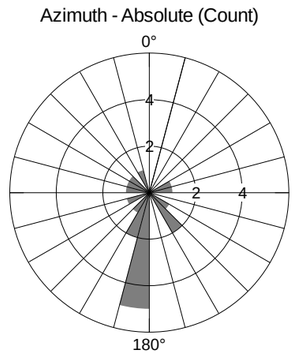
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



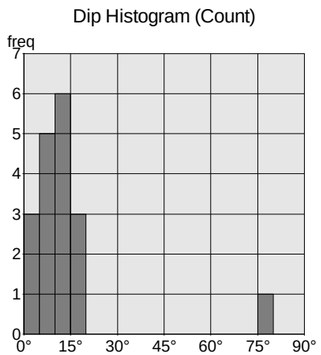
	Counts	Dip[deg]	Azi[deg]
Mean	18	13.12	195.76
■	10	8.59	248.29
●	6	21.63	186.90
◆	2	12.31	182.59

Dip Azimuth Rose Diagram of Fractures



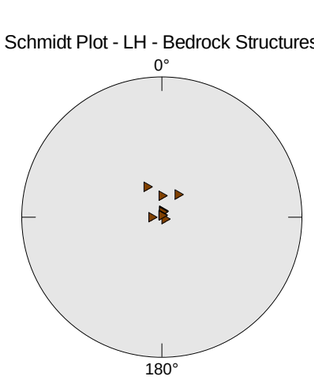
Components:	Azimuth
Counts:	18.00
Mean (2D):	195.76
Std.Dev.:	73.19
Min:	70.69
Max:	331.47

Dip Angle Histogram of Fractures



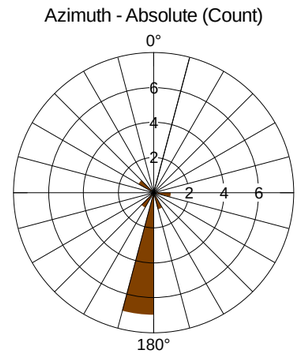
Counts:	18.00
Mean (2D):	13.12
Std.Dev.:	15.41
Min:	0.68
Max:	76.53

Stereogram - Lower Hemisphere of Bedding



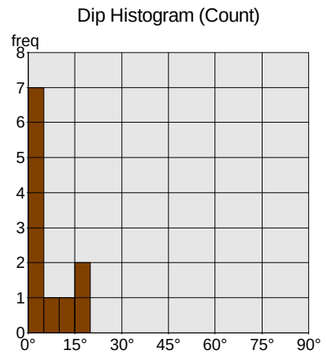
	Counts	Dip[deg]	Azi[deg]
Mean	11	6.54	186.12
▸	11	6.54	186.12

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	11.00
Mean (2D):	186.12
Std.Dev.:	44.68
Min:	90.65
Max:	304.77

Dip Angle Histogram of Bedding



Counts:	11.00
Mean (2D):	6.54
Std.Dev.:	6.30
Min:	1.11
Max:	19.92

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Tel: 732.661.0555

SB-BR-05 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: January 11 & 12, 2023

CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

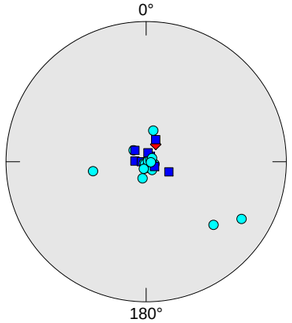
HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures

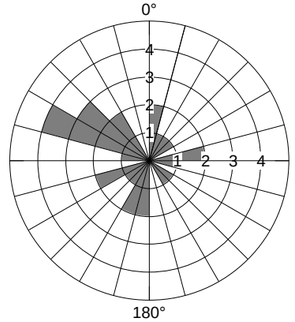
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	28	10.80	288.27
■	8	7.95	187.34
●	19	12.00	313.72
◆	1	11.86	209.22

Dip Azimuth Rose Diagram of Fractures

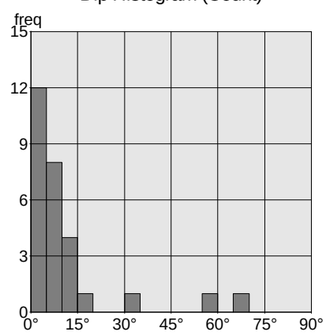
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	28.00
Mean (2D):	288.27
Std.Dev.:	96.59
Min:	6.97
Max:	325.47

Dip Angle Histogram of Fractures

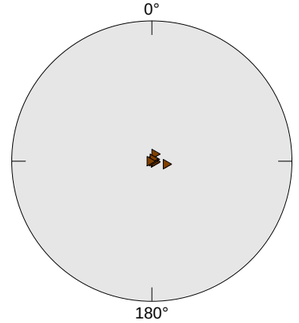
Dip Histogram (Count)



Counts:	28.00
Mean (2D):	10.80
Std.Dev.:	15.26
Min:	1.31
Max:	68.48

Stereogram - Lower Hemisphere of Bedding

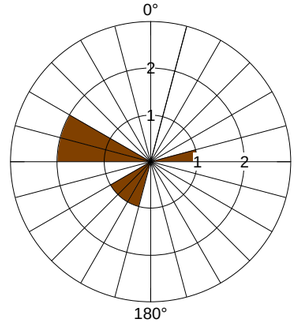
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	8	2.84	258.20
▶	8	2.84	258.20

Dip Azimuth Rose Diagram of Bedding

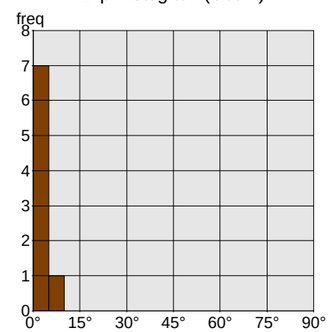
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	8.00
Mean (2D):	258.20
Std.Dev.:	60.98
Min:	85.52
Max:	298.75

Dip Angle Histogram of Bedding

Dip Histogram (Count)



Counts:	8.00
Mean (2D):	2.84
Std.Dev.:	2.42
Min:	0.73
Max:	8.54

HAGER-RICHTER GEOSCIENCE, INC.

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Tel: 732.661.0555

SB-BR-06 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: January 11, 2023

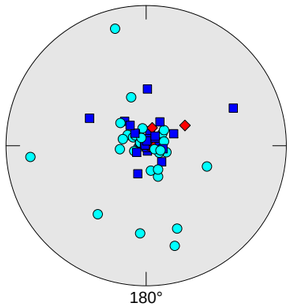
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

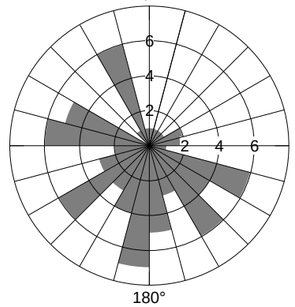
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



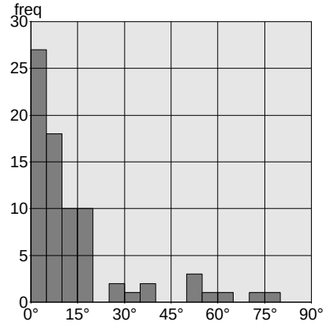
	Counts	Dip[deg]	Azi[deg]
Mean	77	13.88	196.90
■	34	10.02	187.06
●	38	18.11	186.53
◆	5	9.30	247.52

Dip Azimuth Rose Diagram of Fractures



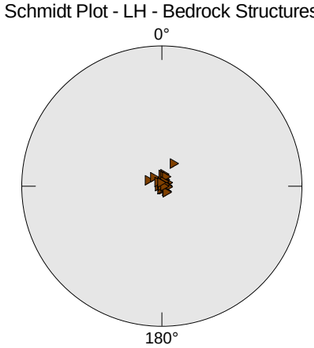
Components:	Azimuth
Counts:	77.00
Mean (2D):	196.90
Std.Dev.:	90.48
Min:	3.92
Max:	348.78

Dip Angle Histogram of Fractures



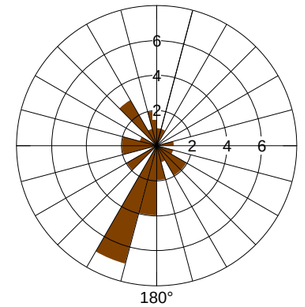
Counts:	77.00
Mean (2D):	13.88
Std.Dev.:	16.62
Min:	0.63
Max:	75.35

Stereogram - Lower Hemisphere of Bedding



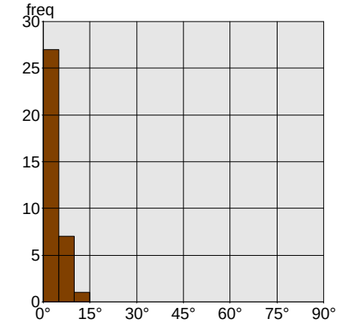
	Counts	Dip[deg]	Azi[deg]
Mean	35	3.54	214.34
▶	35	3.54	214.34

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	35.00
Mean (2D):	214.34
Std.Dev.:	83.67
Min:	0.29
Max:	352.02

Dip Angle Histogram of Bedding



Counts:	35.00
Mean (2D):	3.54
Std.Dev.:	2.91
Min:	0.57
Max:	14.73

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SB-BR-07 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: January 12, 2023

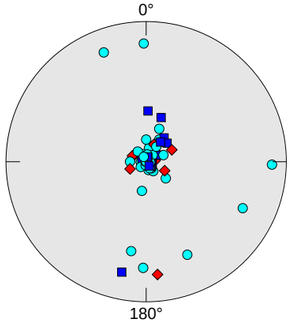
CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	ORIENTATION REFERENCE:	True North
LOCATION:	Sidney, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures

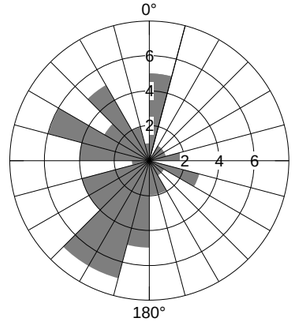
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	68	14.90	244.05
●	41	16.38	242.00
◆	9	15.34	229.42
■	18	11.44	248.90

Dip Azimuth Rose Diagram of Fractures

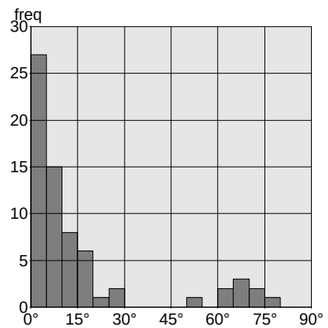
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	68.00
Mean (2D):	244.05
Std.Dev.:	85.96
Min:	1.85
Max:	354.22

Dip Angle Histogram of Fractures

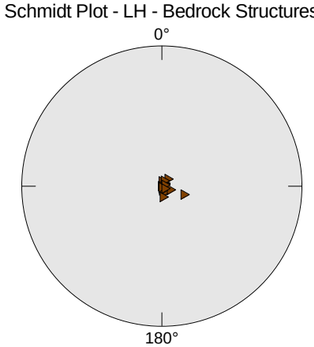
Dip Histogram (Count)



Counts:	68.00
Mean (2D):	14.90
Std.Dev.:	21.04
Min:	0.31
Max:	78.85

Stereogram - Lower Hemisphere of Bedding

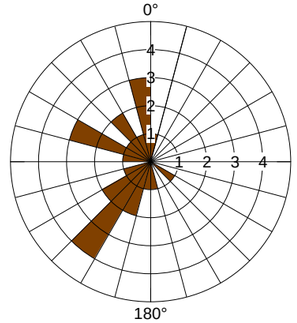
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	24	2.92	267.37
▸	24	2.92	267.37

Dip Azimuth Rose Diagram of Bedding

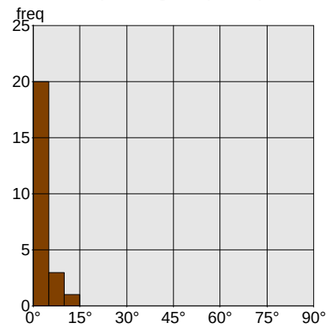
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	24.00
Mean (2D):	267.37
Std.Dev.:	68.12
Min:	6.63
Max:	353.60

Dip Angle Histogram of Bedding

Dip Histogram (Count)



Counts:	24.00
Mean (2D):	2.92
Std.Dev.:	2.79
Min:	0.13
Max:	14.02

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SB-BR-10 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: November 16, 2022

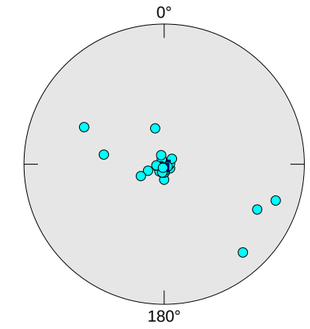
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

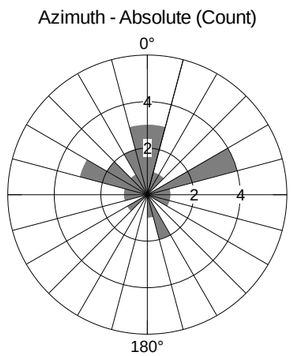
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



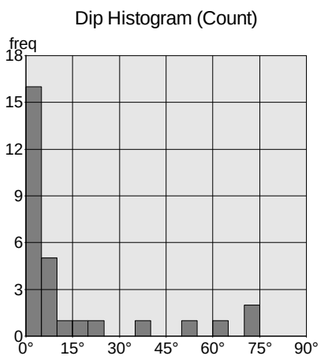
	Counts	Dip[deg]	Azi[deg]
Mean	29	13.83	0.83
■	5	2.40	10.66
●	24	16.39	357.37

Dip Azimuth Rose Diagram of Fractures



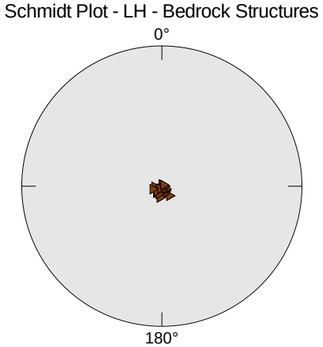
Components:	Azimuth
Counts:	29.00
Mean (2D):	0.83
Std.Dev.:	83.20
Min:	0.86
Max:	356.98

Dip Angle Histogram of Fractures



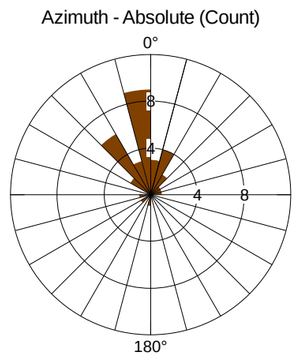
Counts:	29.00
Mean (2D):	13.83
Std.Dev.:	21.44
Min:	1.10
Max:	73.51

Stereogram - Lower Hemisphere of Bedding



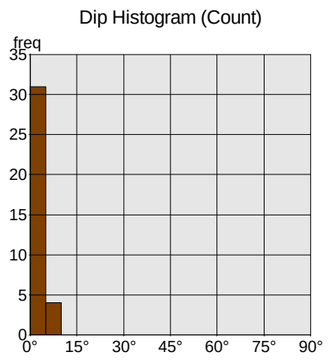
	Counts	Dip[deg]	Azi[deg]
Mean	35	3.26	353.00
▶	35	3.26	353.00

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	35.00
Mean (2D):	353.00
Std.Dev.:	45.70
Min:	6.10
Max:	358.40

Dip Angle Histogram of Bedding



Counts:	35.00
Mean (2D):	3.26
Std.Dev.:	1.53
Min:	1.04
Max:	7.32

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SB-BR-11 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: December 8 & 9, 2022

CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

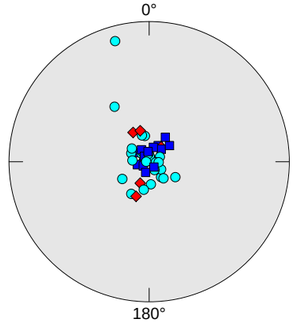
HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures

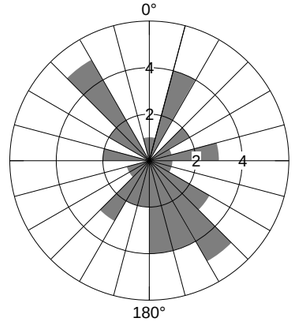
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	48	11.67	148.04
■	16	7.92	163.84
●	27	12.93	114.41
◆	5	17.05	130.21

Dip Azimuth Rose Diagram of Fractures

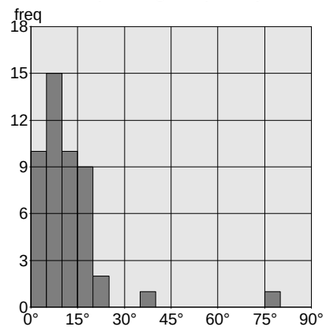
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	48.00
Mean (2D):	148.04
Std.Dev.:	101.74
Min:	11.66
Max:	354.48

Dip Angle Histogram of Fractures

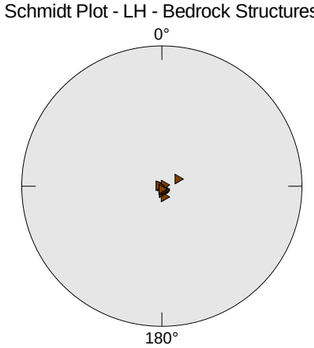
Dip Histogram (Count)



Counts:	48.00
Mean (2D):	11.67
Std.Dev.:	11.45
Min:	1.88
Max:	78.73

Stereogram - Lower Hemisphere of Bedding

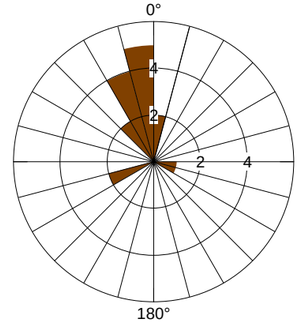
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	17	2.99	345.30
▶	17	2.99	345.30

Dip Azimuth Rose Diagram of Bedding

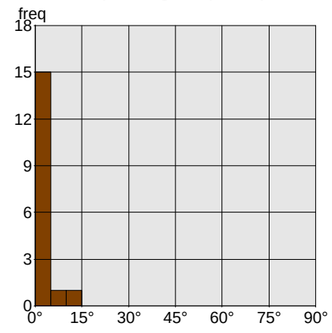
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	17.00
Mean (2D):	345.30
Std.Dev.:	51.20
Min:	1.97
Max:	355.50

Dip Angle Histogram of Bedding

Dip Histogram (Count)



Counts:	17.00
Mean (2D):	2.99
Std.Dev.:	2.31
Min:	0.68
Max:	10.45

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SB-BR-12 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: November 15, 2022

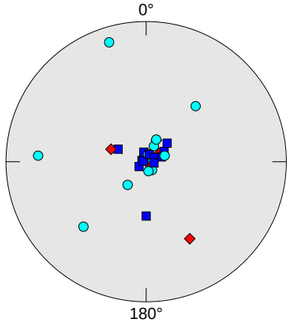
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

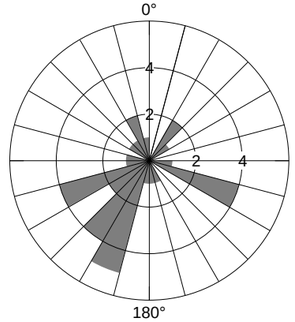
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



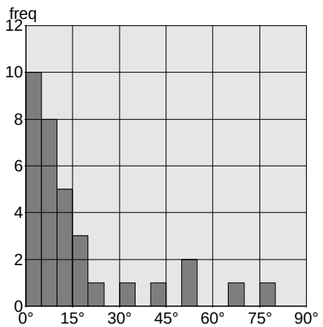
	Counts	Dip[deg]	Azi[deg]
Mean	33	16.07	219.45
■	14	9.07	202.53
●	13	23.88	226.94
◆	6	16.97	244.65

Dip Azimuth Rose Diagram of Fractures



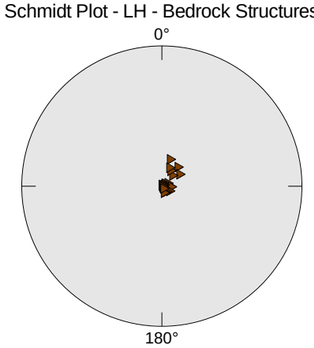
Components:	Azimuth
Counts:	33.00
Mean (2D):	219.45
Std.Dev.:	85.66
Min:	38.42
Max:	359.45

Dip Angle Histogram of Fractures



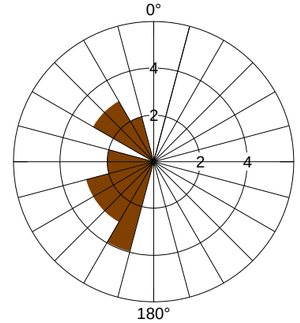
Counts:	33.00
Mean (2D):	16.07
Std.Dev.:	19.41
Min:	1.82
Max:	78.37

Stereogram - Lower Hemisphere of Bedding



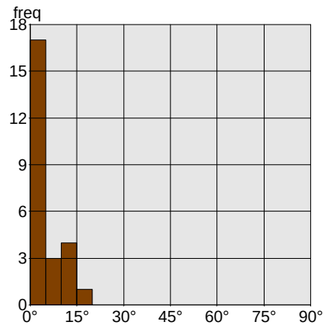
	Counts	Dip[deg]	Azi[deg]
Mean	25	5.11	259.84
▶	25	5.11	259.84

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	25.00
Mean (2D):	259.84
Std.Dev.:	46.61
Min:	197.10
Max:	339.33

Dip Angle Histogram of Bedding



Counts:	25.00
Mean (2D):	5.11
Std.Dev.:	4.63
Min:	0.39
Max:	16.58

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SB-BR-13 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: December 8, 2022

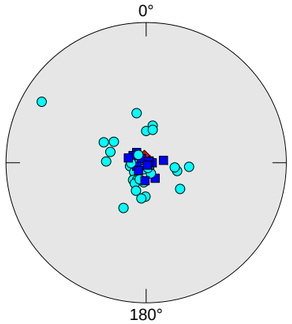
CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	ORIENTATION REFERENCE:	True North
LOCATION:	Sidney, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

Fracture Rank 1 ■ Fracture Rank 2 ◆ Fracture Rank 3 ◀ Bedding

Stereogram - Lower Hemisphere of Fractures

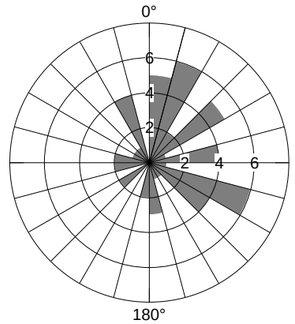
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	54	12.48	56.84
●	38	15.29	48.23
■	15	6.04	127.73
◆	1	4.34	163.57

Dip Azimuth Rose Diagram of Fractures

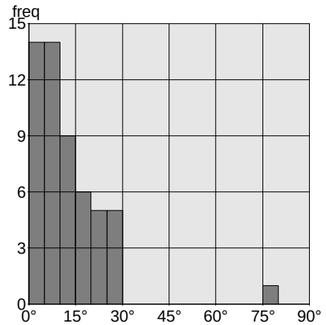
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	54.00
Mean (2D):	56.84
Std.Dev.:	87.71
Min:	1.56
Max:	340.36

Dip Angle Histogram of Fractures

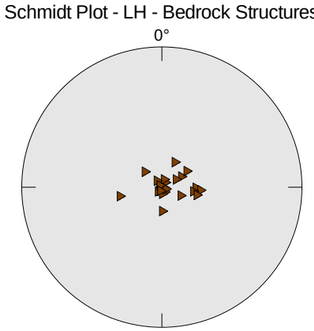
Dip Histogram (Count)



Counts:	54.00
Mean (2D):	12.48
Std.Dev.:	11.54
Min:	1.82
Max:	75.60

Stereogram - Lower Hemisphere of Bedding

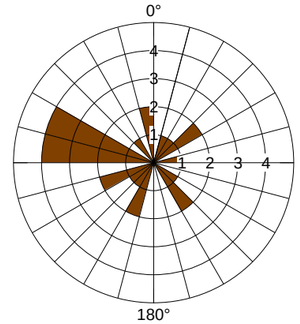
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	25	9.64	282.89
◀	25	9.64	282.89

Dip Azimuth Rose Diagram of Bedding

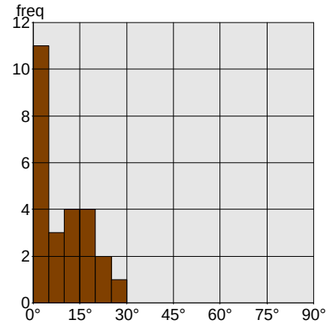
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	25.00
Mean (2D):	282.89
Std.Dev.:	90.93
Min:	16.40
Max:	357.44

Dip Angle Histogram of Bedding

Dip Histogram (Count)



Counts:	25.00
Mean (2D):	9.64
Std.Dev.:	7.81
Min:	0.28
Max:	25.29

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SB-BR-LIF01 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: October 25, 2022

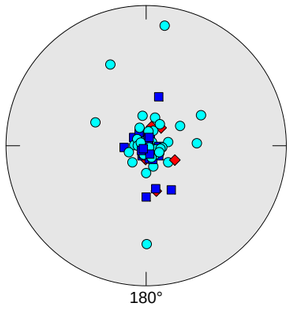
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

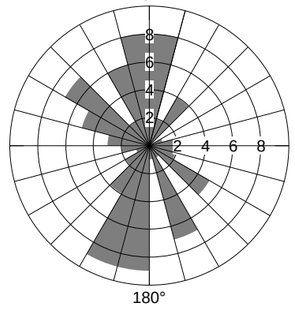
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



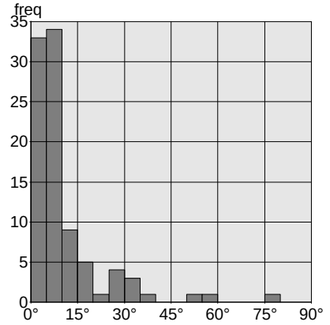
	Counts	Dip[deg]	Azi[deg]
Mean	93	10.31	273.66
○	49	12.18	262.09
◆	9	11.02	211.91
■	35	7.56	326.03

Dip Azimuth Rose Diagram of Fractures



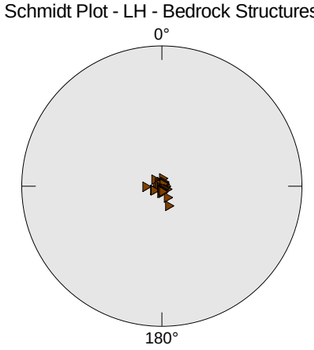
Components:	Azimuth
Counts:	93.00
Mean (2D):	273.66
Std.Dev.:	119.12
Min:	0.00
Max:	360.00

Dip Angle Histogram of Fractures



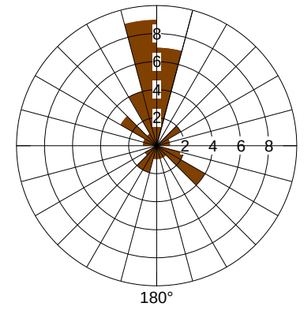
Counts:	93.00
Mean (2D):	10.31
Std.Dev.:	12.37
Min:	0.00
Max:	75.66

Stereogram - Lower Hemisphere of Bedding



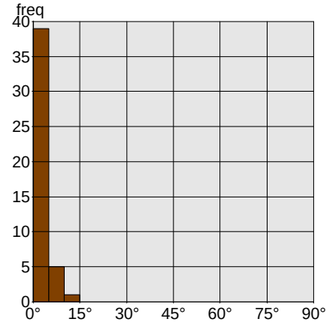
	Counts	Dip[deg]	Azi[deg]
Mean	45	2.95	359.85
▶	45	2.95	359.85

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	45.00
Mean (2D):	359.85
Std.Dev.:	90.10
Min:	0.00
Max:	355.05

Dip Angle Histogram of Bedding



Counts:	45.00
Mean (2D):	2.95
Std.Dev.:	2.30
Min:	0.00
Max:	12.34

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SB-BR-LIF02 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: October 24, 2022

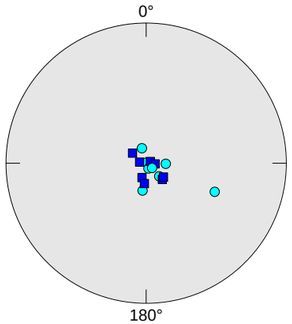
CLIENT:	Parratt-Wolff, Inc.	HRGS FILE:	22RG24
PROJECT:	GCL Tie and Treating	ORIENTATION REFERENCE:	True North
LOCATION:	Sidney, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures

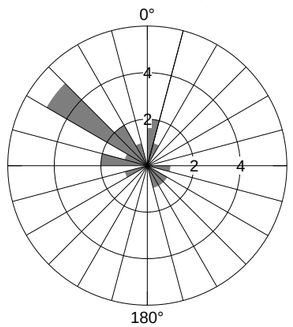
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	19	9.39	313.20
○	11	9.90	306.93
■	8	8.70	329.99

Dip Azimuth Rose Diagram of Fractures

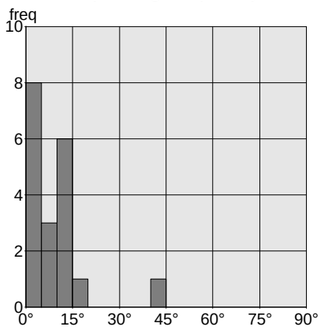
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	19.00
Mean (2D):	313.20
Std.Dev.:	71.89
Min:	5.97
Max:	333.91

Dip Angle Histogram of Fractures

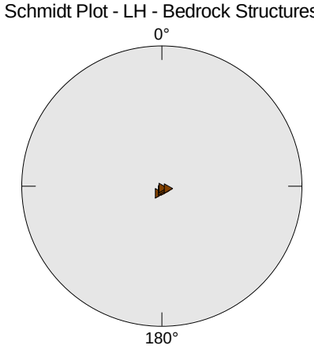
Dip Histogram (Count)



Counts:	19.00
Mean (2D):	9.39
Std.Dev.:	9.24
Min:	0.51
Max:	44.42

Stereogram - Lower Hemisphere of Bedding

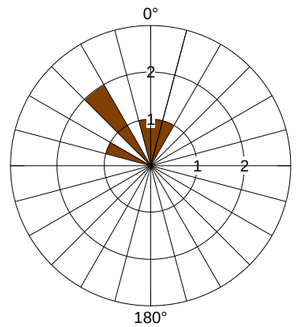
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	6	2.96	342.93
▸	6	2.96	342.93

Dip Azimuth Rose Diagram of Bedding

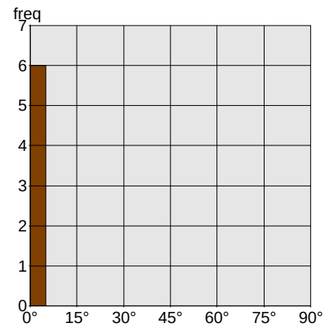
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	6.00
Mean (2D):	342.93
Std.Dev.:	30.14
Min:	9.75
Max:	347.91

Dip Angle Histogram of Bedding

Dip Histogram (Count)



Counts:	6.00
Mean (2D):	2.96
Std.Dev.:	1.11
Min:	1.19
Max:	4.91

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SB-BR-LIF16 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: September 27 & 28, 2022

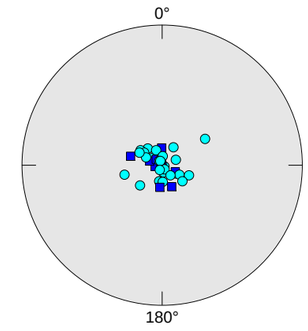
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

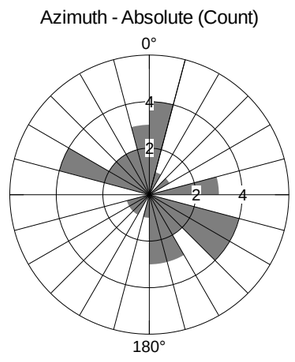
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



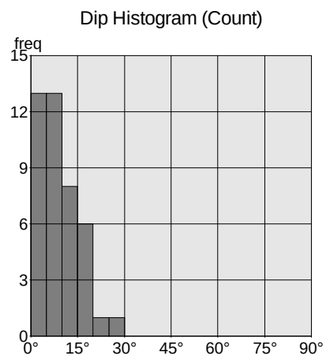
	Counts	Dip[deg]	Azi[deg]
Mean	42	9.35	73.60
■	13	7.51	84.92
●	29	10.18	16.21

Dip Azimuth Rose Diagram of Fractures



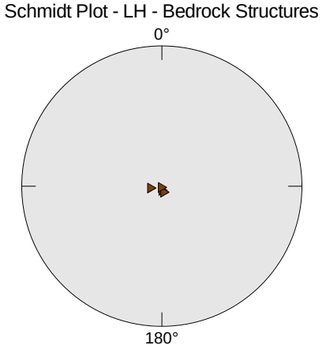
Components:	Azimuth
Counts:	42.00
Mean (2D):	73.60
Std.Dev.:	122.58
Min:	2.41
Max:	357.68

Dip Angle Histogram of Fractures



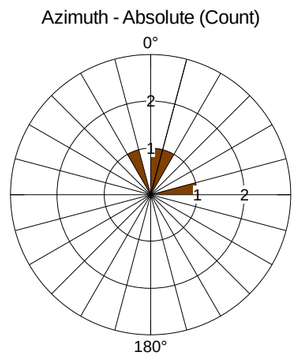
Counts:	42.00
Mean (2D):	9.35
Std.Dev.:	6.24
Min:	0.81
Max:	29.72

Stereogram - Lower Hemisphere of Bedding



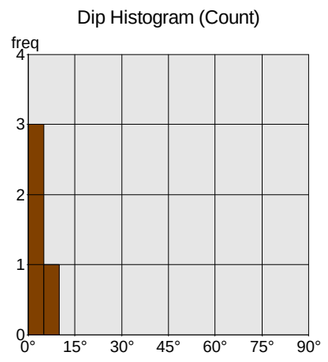
	Counts	Dip[deg]	Azi[deg]
Mean	4	3.58	23.33
▶	4	3.58	23.33

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	4.00
Mean (2D):	23.33
Std.Dev.:	36.27
Min:	7.78
Max:	342.42

Dip Angle Histogram of Bedding



Counts:	4.00
Mean (2D):	3.58
Std.Dev.:	2.20
Min:	1.04
Max:	7.02

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SB-BR-LIF18 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: September 27, 2022

CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

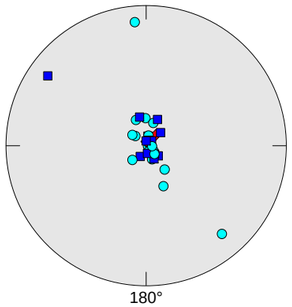
HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures

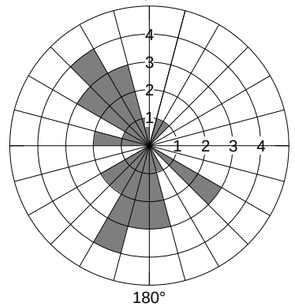
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	34	13.65	246.33
○	17	16.97	280.55
□	15	11.12	237.43
◇	2	5.44	203.86

Dip Azimuth Rose Diagram of Fractures

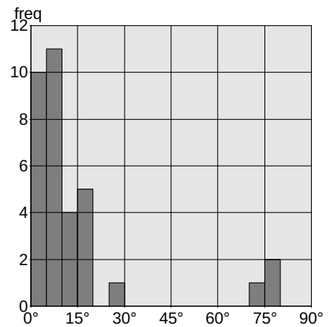
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	34.00
Mean (2D):	246.33
Std.Dev.:	88.81
Min:	29.01
Max:	348.23

Dip Angle Histogram of Fractures

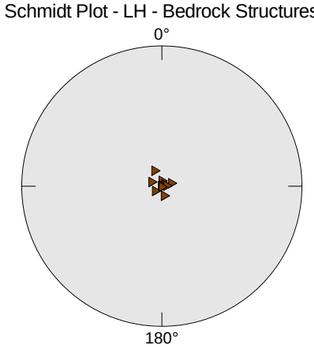
Dip Histogram (Count)



Counts:	34.00
Mean (2D):	13.65
Std.Dev.:	19.08
Min:	1.30
Max:	77.82

Stereogram - Lower Hemisphere of Bedding

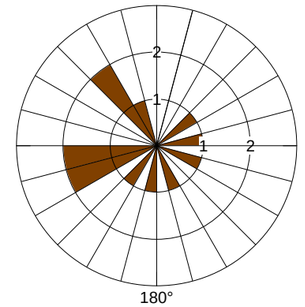
Schmidt Plot - LH - Bedrock Structures



	Counts	Dip[deg]	Azi[deg]
Mean	13	3.43	250.61
▸	13	3.43	250.61

Dip Azimuth Rose Diagram of Bedding

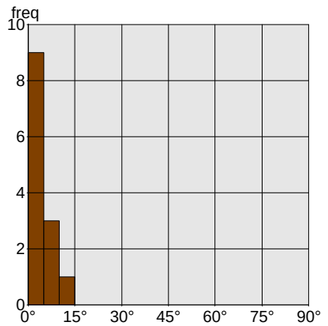
Azimuth - Absolute (Count)



Components:	Azimuth
Counts:	13.00
Mean (2D):	250.61
Std.Dev.:	99.83
Min:	53.30
Max:	343.97

Dip Angle Histogram of Bedding

Dip Histogram (Count)



Counts:	13.00
Mean (2D):	3.43
Std.Dev.:	2.92
Min:	0.26
Max:	10.16

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SB-BR-LIF22 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: October 24, 2022

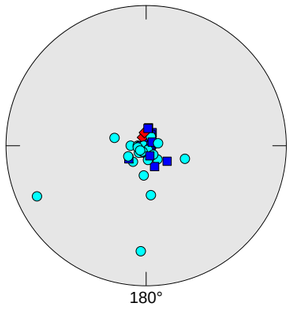
CLIENT: Parratt-Wolff, Inc.
PROJECT: GCL Tie and Treating
LOCATION: Sidney, New York

HRGS FILE: 22RG24
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

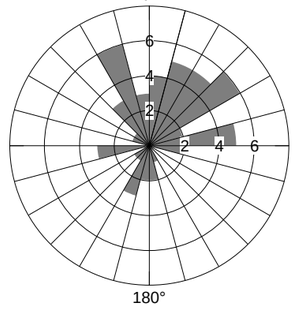
Fracture Rank 1 | Fracture Rank 2 | Fracture Rank 3 | Bedding

Stereogram - Lower Hemisphere of Fractures



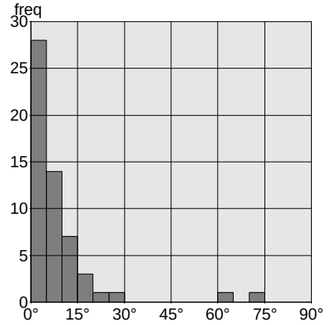
	Counts	Dip[deg]	Azi[deg]
Mean	56	8.98	20.00
○	29	11.92	18.82
■	24	6.00	6.05
◆	3	5.50	135.14

Dip Azimuth Rose Diagram of Fractures



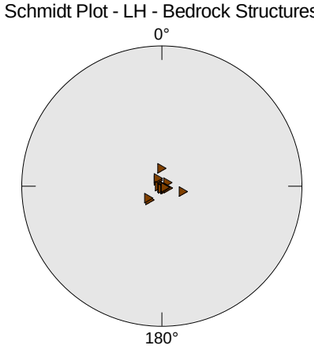
Components:	Azimuth
Counts:	56.00
Mean (2D):	20.00
Std.Dev.:	80.79
Min:	3.22
Max:	353.97

Dip Angle Histogram of Fractures



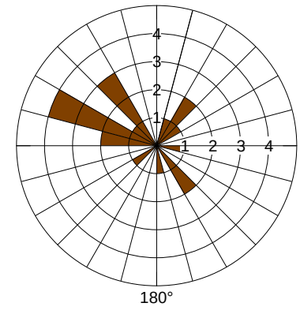
Counts:	56.00
Mean (2D):	8.98
Std.Dev.:	12.45
Min:	1.72
Max:	75.00

Stereogram - Lower Hemisphere of Bedding



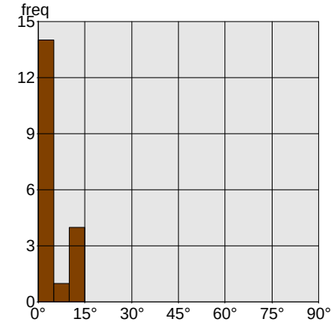
	Counts	Dip[deg]	Azi[deg]
Mean	19	4.29	317.57
▶	19	4.29	317.57

Dip Azimuth Rose Diagram of Bedding



Components:	Azimuth
Counts:	19.00
Mean (2D):	317.57
Std.Dev.:	83.81
Min:	21.99
Max:	326.39

Dip Angle Histogram of Bedding



Counts:	19.00
Mean (2D):	4.29
Std.Dev.:	3.86
Min:	0.50
Max:	12.49

HAGER-RICHTER GEOSCIENCE, INC.	
MW-22 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 17, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

MW-22 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
116.9	285	6	Fracture Rank 2
117.0	288	13	Fracture Rank 3
117.5	340	2	Bedding
119.9	144	1	Bedding
120.7	213	2	Bedding
120.8	308	0	Bedding
121.4	332	4	Bedding
122.2	148	7	Bedding
125.8	335	4	Fracture Rank 3
126.1	218	9	Fracture Rank 2
126.2	21	2	Fracture Rank 3
126.5	356	2	Bedding
127.5	332	3	Bedding
127.7	99	78	Fracture Rank 1
129.9	359	3	Bedding
130.3	340	4	Fracture Rank 1
130.8	311	2	Fracture Rank 1
132.0	303	2	Bedding
133.9	256	10	Fracture Rank 2
134.2	271	9	Fracture Rank 3
135.0	245	20	Fracture Rank 3
136.1	2	1	Fracture Rank 1
139.5	296	1	Bedding
141.5	114	1	Bedding
141.9	308	3	Fracture Rank 1
144.2	257	2	Bedding
144.4	179	22	Fracture Rank 1
144.7	194	26	Fracture Rank 2
144.9	238	2	Bedding
148.8	338	0	Bedding
152.4	127	5	Bedding
152.9	112	1	Bedding
153.2	124	5	Fracture Rank 1

MW-22 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
153.7	265	2	Bedding
157.1	160	37	Fracture Rank 1
159.1	321	11	Bedding

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-04 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 16, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-04 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
130.5	185	16	Fracture Rank 2
131.1	181	13	Bedding
131.3	180	9	Fracture Rank 2
131.5	215	16	Bedding
135.7	185	4	Bedding
135.7	137	77	Fracture Rank 1
135.8	194	12	Fracture Rank 1
136.1	193	4	Bedding
136.2	186	17	Fracture Rank 1
136.6	154	20	Bedding
136.9	122	5	Fracture Rank 2
137.0	243	9	Fracture Rank 2
137.2	147	11	Fracture Rank 3
138.1	305	5	Fracture Rank 2
140.9	305	2	Bedding
141.2	206	12	Fracture Rank 1
142.4	187	3	Bedding
142.5	186	9	Fracture Rank 1
143.5	279	2	Fracture Rank 2
143.8	290	1	Fracture Rank 2
143.9	71	13	Fracture Rank 2
144.0	331	19	Fracture Rank 2
144.5	82	7	Fracture Rank 2
144.6	91	6	Bedding
146.7	193	1	Bedding
150.4	207	11	Fracture Rank 1
150.5	218	14	Fracture Rank 3
151.6	180	1	Bedding
152.0	193	1	Bedding

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-05 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	January 11 & 12, 2023
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-05 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
132.0	235	2	Bedding
132.1	204	5	Bedding
132.4	219	4	Fracture Rank 2
132.8	286	5	Fracture Rank 1
133.2	286	3	Fracture Rank 1
133.6	298	5	Fracture Rank 1
137.4	133	10	Fracture Rank 1
137.7	209	12	Fracture Rank 3
138.1	93	7	Fracture Rank 2
138.3	204	14	Fracture Rank 2
140.2	299	2	Bedding
140.5	83	3	Fracture Rank 2
140.7	56	2	Fracture Rank 1
140.8	34	2	Fracture Rank 1
141.3	301	68	Fracture Rank 1
141.6	282	2	Bedding
141.8	325	2	Fracture Rank 1
143.9	297	1	Bedding
144.3	7	4	Fracture Rank 1
145.4	135	10	Fracture Rank 2
150.7	245	1	Fracture Rank 1
151.8	12	10	Fracture Rank 1
151.9	210	2	Bedding
152.5	282	9	Bedding
152.5	295	15	Fracture Rank 2
152.6	313	56	Fracture Rank 1
152.8	325	6	Fracture Rank 1
152.9	300	6	Fracture Rank 2
153.5	80	32	Fracture Rank 1
153.7	20	4	Fracture Rank 1
153.8	244	3	Fracture Rank 1
154.0	191	6	Fracture Rank 2
154.8	86	1	Bedding
155.0	237	4	Fracture Rank 1
155.3	278	3	Fracture Rank 1

SB-BR-05 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
155.8	193	19	Fracture Rank 1

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-06 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	January 11, 2023
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-06 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
90.6	200	4	Bedding
92.1	178	7	Bedding
92.3	189	7	Bedding
92.5	191	6	Bedding
92.9	193	6	Bedding
93.0	203	7	Fracture Rank 2
93.0	194	9	Fracture Rank 2
93.2	228	4	Fracture Rank 2
93.4	344	64	Fracture Rank 1
93.6	200	11	Fracture Rank 3
94.0	288	13	Fracture Rank 1
94.1	17	17	Fracture Rank 2
94.2	240	4	Fracture Rank 3
94.5	165	75	Fracture Rank 1
94.9	206	15	Bedding
95.2	167	11	Fracture Rank 1
95.3	247	58	Fracture Rank 2
95.3	246	18	Fracture Rank 2
95.4	243	26	Fracture Rank 3
95.6	138	9	Fracture Rank 2
95.7	282	7	Fracture Rank 2
98.1	144	2	Bedding
98.3	344	3	Fracture Rank 2
99.7	168	3	Fracture Rank 1
102.8	74	5	Fracture Rank 1
102.9	157	3	Fracture Rank 1
103.0	198	2	Bedding
103.1	189	4	Fracture Rank 1
103.2	184	2	Fracture Rank 2
103.3	182	33	Fracture Rank 2
103.6	163	30	Fracture Rank 1
103.7	121	13	Fracture Rank 1
104.0	84	72	Fracture Rank 1
104.2	139	19	Fracture Rank 2
104.4	237	4	Bedding

SB-BR-06 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
104.6	123	9	Fracture Rank 1
104.9	100	4	Fracture Rank 2
105.0	171	2	Fracture Rank 2
105.2	340	1	Fracture Rank 2
105.4	192	1	Bedding
105.6	147	4	Fracture Rank 1
105.7	201	6	Bedding
105.9	113	4	Fracture Rank 2
106.0	82	2	Bedding
106.4	201	3	Fracture Rank 1
106.6	210	1	Bedding
106.9	339	19	Fracture Rank 1
107.1	215	1	Fracture Rank 2
107.6	4	53	Fracture Rank 1
108.1	266	1	Bedding
109.2	259	3	Bedding
109.4	285	9	Fracture Rank 1
109.9	114	9	Bedding
111.1	321	4	Bedding
111.3	137	7	Bedding
111.5	298	1	Bedding
111.9	167	1	Bedding
112.0	65	8	Fracture Rank 1
112.2	172	2	Fracture Rank 2
112.5	239	10	Fracture Rank 1
112.8	271	2	Fracture Rank 1
113.1	133	4	Bedding
113.6	132	20	Fracture Rank 1
114.1	352	2	Bedding
114.2	283	2	Fracture Rank 3
114.4	116	37	Fracture Rank 2
114.6	270	4	Fracture Rank 3
115.0	341	2	Bedding
115.2	209	2	Bedding
116.0	204	3	Bedding
117.1	189	3	Fracture Rank 2
117.2	273	8	Fracture Rank 2
117.4	35	50	Fracture Rank 1
118.4	340	53	Fracture Rank 1
118.5	204	3	Fracture Rank 1
118.5	194	4	Fracture Rank 2
119.2	233	12	Fracture Rank 1
119.9	133	9	Fracture Rank 1
120.1	316	13	Fracture Rank 2
120.6	351	1	Bedding

SB-BR-06 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
121.3	299	9	Fracture Rank 1
122.8	289	38	Fracture Rank 1
124.9	257	11	Fracture Rank 1
125.0	0	1	Bedding
131.1	117	4	Fracture Rank 1
131.9	24	2	Bedding
133.9	292	6	Fracture Rank 1
134.1	113	1	Fracture Rank 2
134.2	281	10	Fracture Rank 2
134.5	290	9	Fracture Rank 1
134.6	278	3	Bedding
136.6	231	2	Bedding
137.1	324	4	Bedding
137.6	324	5	Bedding
141.0	168	3	Fracture Rank 2
141.1	117	1	Fracture Rank 2
141.7	192	3	Fracture Rank 2
142.8	135	1	Bedding
144.4	270	1	Bedding
145.6	229	7	Fracture Rank 2
146.0	224	8	Fracture Rank 2
146.3	149	5	Fracture Rank 1
146.5	155	2	Bedding
146.8	349	15	Fracture Rank 1
146.8	334	16	Fracture Rank 1
147.3	137	10	Fracture Rank 2
147.5	228	14	Fracture Rank 1
148.6	210	16	Fracture Rank 2
150.2	142	15	Fracture Rank 2
151.0	107	14	Fracture Rank 1
151.1	56	7	Fracture Rank 2
152.0	82	16	Fracture Rank 1

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-07 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	January 12, 2023
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-07 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
90.5	167	5	Fracture Rank 1
90.8	311	4	Fracture Rank 1
91.5	7	1	Bedding
92.8	120	3	Fracture Rank 1
94.1	354	70	Fracture Rank 3
94.2	241	8	Fracture Rank 1
95.0	323	4	Bedding
96.0	199	10	Fracture Rank 1
96.4	354	2	Bedding
97.4	321	2	Bedding
97.6	212	15	Fracture Rank 1
97.7	221	5	Bedding
98.2	119	8	Fracture Rank 3
98.5	328	2	Fracture Rank 2
98.8	311	15	Fracture Rank 1
99.0	13	70	Fracture Rank 2
99.6	2	65	Fracture Rank 1
99.8	344	5	Fracture Rank 1
100.4	297	12	Fracture Rank 3
100.8	322	7	Fracture Rank 1
101.0	295	2	Fracture Rank 1
101.3	80	3	Fracture Rank 1
101.4	231	1	Fracture Rank 2
101.6	296	66	Fracture Rank 1
101.7	196	2	Fracture Rank 2
101.8	277	2	Fracture Rank 2
102.1	182	30	Fracture Rank 2
102.1	159	73	Fracture Rank 1
102.5	290	2	Fracture Rank 1
102.7	292	1	Bedding
102.7	277	1	Bedding
103.6	199	7	Fracture Rank 1
103.6	125	3	Fracture Rank 2
103.7	263	6	Fracture Rank 3
104.0	321	5	Fracture Rank 1

SB-BR-07 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
106.1	288	4	Fracture Rank 2
106.2	115	9	Fracture Rank 3
106.3	88	9	Fracture Rank 1
106.5	245	10	Fracture Rank 2
106.6	206	9	Fracture Rank 1
106.9	233	2	Bedding
107.5	230	3	Bedding
107.7	225	3	Bedding
108.2	223	1	Bedding
108.4	208	2	Bedding
108.7	214	14	Fracture Rank 1
109.4	174	3	Bedding
109.6	8	17	Fracture Rank 1
109.8	224	2	Bedding
112.6	193	8	Fracture Rank 1
113.0	273	3	Fracture Rank 2
113.0	297	4	Fracture Rank 2
113.2	315	4	Fracture Rank 2
116.4	199	27	Fracture Rank 2
116.9	217	18	Fracture Rank 2
117.1	202	21	Fracture Rank 1
118.8	291	14	Bedding
119.0	294	5	Bedding
120.0	141	8	Fracture Rank 1
121.2	229	16	Fracture Rank 2
122.0	346	3	Bedding
122.4	250	11	Fracture Rank 1
123.3	204	3	Bedding
124.5	45	5	Fracture Rank 1
126.4	123	1	Bedding
129.3	66	10	Fracture Rank 3
129.4	204	11	Fracture Rank 3
129.6	229	3	Fracture Rank 3
130.8	271	79	Fracture Rank 1
131.1	227	6	Fracture Rank 1
133.5	336	62	Fracture Rank 1
133.8	245	17	Fracture Rank 3
134.0	328	5	Fracture Rank 1
135.6	214	11	Fracture Rank 1
135.8	217	14	Fracture Rank 2
137.2	280	3	Fracture Rank 1
137.4	14	2	Fracture Rank 1
138.3	57	1	Fracture Rank 1
138.8	10	55	Fracture Rank 1
138.9	191	5	Fracture Rank 1

SB-BR-07 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
141.4	184	0	Bedding
141.8	212	3	Fracture Rank 1
141.9	248	2	Bedding
141.9	335	1	Bedding
142.2	223	0	Fracture Rank 1
145.6	351	7	Bedding
145.8	193	3	Fracture Rank 2
146.6	311	3	Bedding
148.7	181	13	Fracture Rank 1
148.9	321	3	Fracture Rank 2
149.0	152	3	Fracture Rank 1
150.2	179	74	Fracture Rank 1

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-10 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 16, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-10 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
136.5	330	2	Bedding
136.6	326	4	Bedding
136.8	338	5	Bedding
137.4	357	2	Bedding
137.8	184	1	Bedding
138.3	358	2	Bedding
138.6	358	2	Bedding
138.9	358	2	Bedding
139.5	357	2	Fracture Rank 2
139.7	350	3	Bedding
140.0	326	3	Bedding
140.9	19	4	Bedding
141.2	358	2	Bedding
141.5	1	9	Fracture Rank 1
141.7	319	7	Bedding
141.8	306	5	Fracture Rank 1
142.5	354	3	Bedding
143.0	333	4	Bedding
143.7	345	5	Bedding
143.7	12	5	Fracture Rank 1
143.8	355	5	Fracture Rank 1
144.0	99	36	Fracture Rank 1
144.0	354	4	Fracture Rank 1
144.3	290	3	Fracture Rank 1
144.4	261	4	Fracture Rank 1
144.5	343	3	Bedding
144.7	308	3	Bedding
144.8	237	6	Fracture Rank 1
144.9	272	1	Fracture Rank 2
145.4	318	1	Bedding
145.8	11	7	Bedding
146.4	322	3	Bedding
146.5	318	74	Fracture Rank 1

SB-BR-10 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
146.7	115	53	Fracture Rank 1
148.0	288	73	Fracture Rank 1
148.7	165	22	Fracture Rank 1
149.3	303	3	Bedding
149.6	72	4	Fracture Rank 2
149.9	335	3	Fracture Rank 1
150.0	36	5	Fracture Rank 1
150.4	153	3	Fracture Rank 1
151.2	6	2	Bedding
152.2	67	10	Fracture Rank 1
152.5	71	3	Fracture Rank 2
152.7	84	4	Bedding
152.9	11	2	Bedding
153.0	28	4	Bedding
153.3	47	2	Bedding
153.5	346	2	Bedding
153.6	80	5	Fracture Rank 1
153.7	304	3	Fracture Rank 1
154.0	266	2	Bedding
154.3	339	2	Fracture Rank 2
154.5	41	5	Bedding
154.7	21	5	Bedding
155.1	41	5	Bedding
155.6	29	2	Bedding
155.8	70	6	Bedding
156.5	62	15	Fracture Rank 1
157.3	14	5	Fracture Rank 1
157.3	24	2	Fracture Rank 1
157.5	237	1	Bedding
158.1	161	6	Fracture Rank 1
158.7	296	63	Fracture Rank 1

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-11 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	December 8 & 9, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-11 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
113.1	130	9	Fracture Rank 2
113.3	170	15	Fracture Rank 1
114.1	30	22	Fracture Rank 1
114.2	164	79	Fracture Rank 1
114.2	23	14	Fracture Rank 3
115.6	169	6	Fracture Rank 2
115.8	354	13	Fracture Rank 1
116.0	138	7	Fracture Rank 1
118.8	12	17	Fracture Rank 1
119.5	345	7	Bedding
119.5	322	12	Fracture Rank 1
120.0	353	4	Bedding
120.7	210	11	Fracture Rank 2
120.8	218	11	Fracture Rank 3
121.2	146	7	Fracture Rank 1
122.5	337	2	Bedding
123.2	338	4	Bedding
125.4	224	10	Fracture Rank 2
125.7	326	5	Fracture Rank 1
125.9	181	6	Fracture Rank 2
126.0	197	9	Fracture Rank 2
126.1	246	10	Bedding
126.3	232	15	Fracture Rank 2
126.9	21	22	Fracture Rank 3
127.3	148	9	Fracture Rank 2
129.2	76	4	Fracture Rank 1
130.7	57	19	Fracture Rank 1
130.9	85	2	Fracture Rank 2
131.3	151	20	Fracture Rank 3
131.7	165	16	Fracture Rank 1
132.0	163	19	Fracture Rank 3
134.0	305	8	Fracture Rank 1
134.1	121	3	Fracture Rank 1
134.5	115	12	Fracture Rank 1
134.8	354	4	Bedding

SB-BR-11 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
134.9	214	17	Fracture Rank 2
135.7	326	3	Bedding
136.7	2	2	Bedding
137.5	139	4	Fracture Rank 2
137.9	148	38	Fracture Rank 1
138.2	188	3	Fracture Rank 1
139.6	75	7	Fracture Rank 2
140.0	98	1	Bedding
143.0	95	10	Fracture Rank 1
144.5	344	2	Bedding
144.7	319	13	Fracture Rank 1
145.3	345	2	Bedding
146.0	328	6	Fracture Rank 1
147.3	54	4	Fracture Rank 2
148.2	350	1	Bedding
149.0	319	2	Bedding
150.3	301	18	Fracture Rank 1
151.5	244	2	Bedding
151.9	174	5	Fracture Rank 1
152.0	171	6	Fracture Rank 2
152.2	10	2	Bedding
152.3	246	7	Fracture Rank 1
152.6	279	4	Fracture Rank 1
155.1	276	6	Fracture Rank 1
155.5	128	13	Fracture Rank 1
156.0	87	2	Fracture Rank 1
156.2	106	2	Bedding
157.3	356	2	Bedding
157.5	18	7	Fracture Rank 2
158.8	320	4	Fracture Rank 2

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-12 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	November 15, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-12 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
115.5	231	2	Bedding
115.5	111	3	Fracture Rank 2
116.0	237	3	Bedding
116.1	93	66	Fracture Rank 1
116.1	165	6	Fracture Rank 2
116.9	242	4	Bedding
117.2	262	4	Bedding
117.3	278	4	Bedding
117.6	253	1	Bedding
117.8	276	6	Bedding
118.0	238	9	Fracture Rank 3
118.4	163	78	Fracture Rank 1
118.7	220	15	Bedding
119.0	236	13	Bedding
119.6	224	9	Bedding
119.6	225	4	Fracture Rank 1
120.3	197	17	Bedding
120.5	211	11	Bedding
120.7	204	12	Bedding
122.6	302	5	Bedding
124.4	320	4	Bedding
124.9	224	3	Fracture Rank 2
125.0	56	5	Fracture Rank 2
125.3	201	5	Fracture Rank 2
127.7	312	4	Fracture Rank 3
128.6	114	18	Fracture Rank 2
128.7	109	22	Fracture Rank 3
129.2	324	6	Fracture Rank 1
131.4	44	55	Fracture Rank 1
132.7	38	18	Fracture Rank 1
133.6	206	14	Fracture Rank 3
133.7	208	10	Fracture Rank 1
134.0	228	17	Fracture Rank 2

SB-BR-12 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
134.1	240	12	Fracture Rank 2
135.9	217	2	Fracture Rank 3
136.3	251	9	Fracture Rank 2
137.7	333	4	Bedding
138.7	330	53	Fracture Rank 3
139.5	339	4	Bedding
139.8	197	1	Bedding
140.3	315	1	Bedding
141.2	205	14	Fracture Rank 1
141.4	222	44	Fracture Rank 1
142.4	266	0	Bedding
143.0	106	2	Fracture Rank 2
143.1	252	12	Fracture Rank 1
144.4	194	4	Fracture Rank 1
144.7	255	4	Fracture Rank 1
144.8	204	5	Fracture Rank 2
145.3	246	2	Bedding
145.7	241	5	Fracture Rank 2
148.7	204	1	Bedding
150.9	302	1	Bedding
152.4	313	1	Bedding
153.2	317	2	Bedding
154.1	343	6	Fracture Rank 1
154.6	282	5	Fracture Rank 2
154.8	359	32	Fracture Rank 2

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-13 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	December 8, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-13 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
140.4	295	12	Bedding
140.6	241	13	Bedding
141.2	286	19	Fracture Rank 1
141.5	272	20	Bedding
141.7	117	3	Fracture Rank 2
141.7	275	23	Bedding
141.9	83	9	Fracture Rank 1
142.4	308	25	Fracture Rank 1
142.7	278	19	Bedding
142.9	276	25	Fracture Rank 1
143.1	283	21	Bedding
143.4	218	4	Bedding
143.6	261	10	Fracture Rank 2
143.8	242	10	Bedding
144.2	190	22	Fracture Rank 1
144.9	40	5	Fracture Rank 1
145.1	237	18	Bedding
145.3	106	6	Fracture Rank 1
145.8	329	11	Fracture Rank 2
145.9	357	14	Bedding
146.1	7	12	Fracture Rank 1
146.5	208	17	Bedding
150.1	200	5	Bedding
150.3	178	2	Fracture Rank 2
150.4	238	2	Fracture Rank 2
150.4	164	4	Fracture Rank 3
151.4	123	23	Fracture Rank 1
151.9	57	6	Fracture Rank 1
152.5	327	4	Bedding
153.6	78	10	Fracture Rank 1
153.7	52	8	Fracture Rank 1
153.8	52	9	Fracture Rank 1
154.9	330	4	Fracture Rank 1
155.5	57	4	Fracture Rank 1
155.8	58	0	Bedding

SB-BR-13 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
156.0	47	2	Bedding
156.0	76	2	Fracture Rank 1
156.3	77	25	Bedding
156.5	286	2	Bedding
156.9	267	4	Fracture Rank 2
157.0	293	2	Bedding
157.1	145	5	Bedding
157.2	129	4	Fracture Rank 2
157.3	239	2	Fracture Rank 2
157.4	7	2	Fracture Rank 1
157.5	136	8	Fracture Rank 2
157.6	119	9	Fracture Rank 2
157.7	21	4	Fracture Rank 1
158.3	41	3	Bedding
158.5	133	7	Fracture Rank 1
159.5	180	19	Fracture Rank 1
159.9	191	20	Fracture Rank 1
163.8	107	22	Fracture Rank 1
164.4	38	13	Fracture Rank 1
165.6	27	11	Fracture Rank 1
165.9	29	14	Fracture Rank 1
166.3	352	4	Bedding
172.1	294	3	Bedding
174.0	68	6	Fracture Rank 2
175.7	133	14	Bedding
176.9	136	2	Bedding
177.0	120	76	Fracture Rank 1
178.6	87	9	Fracture Rank 1
178.7	107	11	Fracture Rank 2
180.7	336	7	Fracture Rank 1
181.0	340	4	Fracture Rank 1
182.4	333	2	Fracture Rank 2
184.2	23	11	Fracture Rank 1
184.8	116	28	Fracture Rank 1
185.2	169	30	Fracture Rank 1
186.2	20	17	Fracture Rank 1
186.5	45	6	Fracture Rank 2
187.9	26	30	Fracture Rank 1
188.3	280	17	Fracture Rank 1
189.4	5	11	Fracture Rank 2
190.5	2	20	Fracture Rank 1
192.0	16	2	Bedding
195.5	8	21	Fracture Rank 1
196.2	92	23	Fracture Rank 1

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF01 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	October 25, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-LIF01 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
85.7	260	13	Fracture Rank 1
86.3	352	2	Bedding
87.8	267	30	Fracture Rank 1
87.8	194	4	Fracture Rank 3
88.5	199	5	Fracture Rank 2
88.7	184	7	Fracture Rank 3
88.8	204	3	Fracture Rank 2
88.9	210	3	Fracture Rank 2
89.1	188	7	Fracture Rank 1
89.3	85	13	Fracture Rank 2
89.4	125	9	Fracture Rank 2
89.6	121	3	Fracture Rank 2
89.8	190	6	Fracture Rank 1
90.3	185	5	Bedding
90.4	155	5	Fracture Rank 3
90.6	135	2	Bedding
91.2	272	2	Bedding
91.5	121	2	Bedding
92.0	117	4	Bedding
92.4	305	2	Bedding
92.9	95	7	Fracture Rank 1
93.0	210	5	Fracture Rank 2
93.1	196	12	Fracture Rank 3
93.6	301	2	Bedding
94.2	153	3	Bedding
94.6	133	6	Bedding
94.9	3	8	Fracture Rank 3
95.1	219	14	Fracture Rank 3
95.3	239	23	Fracture Rank 1
96.2	241	37	Fracture Rank 1
96.7	24	7	Fracture Rank 2
97.0	359	5	Fracture Rank 1
98.4	360	60	Fracture Rank 1
98.9	189	76	Fracture Rank 1
100.0	237	4	Fracture Rank 1

SB-BR-LIF01 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
100.4	335	7	Bedding
102.1	2	4	Bedding
102.2	340	5	Fracture Rank 1
102.3	273	7	Fracture Rank 2
103.2	133	5	Fracture Rank 1
103.9	122	3	Fracture Rank 1
104.2	347	3	Fracture Rank 2
104.7	346	2	Bedding
104.9	0	0	Fracture Rank 2
105.0	312	3	Fracture Rank 2
105.6	278	10	Fracture Rank 1
106.1	0	0	Fracture Rank 2
106.3	156	1	Fracture Rank 1
106.5	347	8	Fracture Rank 2
106.7	211	3	Fracture Rank 2
107.2	0	0	Fracture Rank 1
107.5	187	3	Fracture Rank 3
107.7	354	1	Bedding
107.9	171	2	Bedding
108.2	351	1	Bedding
108.5	298	2	Fracture Rank 1
108.9	203	3	Bedding
109.9	302	9	Fracture Rank 1
110.8	231	2	Bedding
110.9	86	1	Fracture Rank 1
111.3	213	2	Bedding
111.6	291	1	Bedding
111.9	208	3	Fracture Rank 2
112.0	354	2	Bedding
112.4	0	0	Bedding
112.8	214	2	Bedding
113.2	65	6	Bedding
113.3	70	11	Fracture Rank 1
113.5	86	10	Bedding
113.7	0	0	Bedding
113.9	158	6	Fracture Rank 2
114.0	150	9	Fracture Rank 2
114.0	127	7	Fracture Rank 1
114.1	142	3	Fracture Rank 1
114.2	159	11	Fracture Rank 1
114.6	21	6	Fracture Rank 2
114.8	193	3	Fracture Rank 2
114.8	198	17	Fracture Rank 1
114.9	115	33	Fracture Rank 1
115.2	347	27	Fracture Rank 3

SB-BR-LIF01 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
115.3	347	26	Fracture Rank 2
115.4	360	30	Fracture Rank 2
115.6	173	18	Fracture Rank 1
115.8	194	30	Fracture Rank 2
116.0	320	2	Fracture Rank 2
117.4	341	12	Bedding
117.6	338	1	Bedding
118.7	340	13	Fracture Rank 1
119.2	346	3	Bedding
119.6	9	3	Bedding
121.4	154	3	Fracture Rank 1
121.6	127	3	Bedding
121.8	352	2	Bedding
122.1	106	3	Bedding
122.7	139	2	Bedding
124.3	204	2	Bedding
124.5	0	0	Fracture Rank 1
124.9	46	1	Bedding
126.5	305	3	Bedding
127.4	307	16	Fracture Rank 1
127.5	297	19	Fracture Rank 3
128.2	40	13	Fracture Rank 1
128.5	205	10	Fracture Rank 1
129.3	60	5	Bedding
130.4	341	2	Bedding
130.6	93	5	Fracture Rank 1
131.2	323	2	Bedding
131.7	156	53	Fracture Rank 1
132.0	196	4	Fracture Rank 2
132.1	355	2	Bedding
133.5	212	15	Fracture Rank 1
133.6	33	2	Fracture Rank 2
133.8	320	3	Fracture Rank 2
133.8	310	10	Fracture Rank 2
134.6	13	2	Bedding
135.8	334	9	Fracture Rank 2
136.2	13	4	Bedding
137.4	296	4	Fracture Rank 1
137.6	13	3	Bedding
137.7	14	4	Fracture Rank 1
137.9	15	5	Fracture Rank 2
138.7	118	4	Fracture Rank 1
139.4	191	9	Fracture Rank 1
139.6	15	6	Fracture Rank 1
139.7	201	5	Fracture Rank 2

SB-BR-LIF01 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
140.8	360	16	Fracture Rank 1
141.3	314	8	Fracture Rank 1
141.7	354	3	Bedding
144.5	336	8	Fracture Rank 1
144.9	308	4	Fracture Rank 1
145.1	290	6	Fracture Rank 1
145.5	45	4	Fracture Rank 2
145.9	330	30	Fracture Rank 2
146.1	302	2	Fracture Rank 1
146.2	282	9	Fracture Rank 1
146.3	298	9	Fracture Rank 1
146.6	336	6	Fracture Rank 2
147.0	42	3	Fracture Rank 2

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF02 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	October 24, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-LIF02 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
140.7	315	11	Fracture Rank 1
140.8	272	11	Fracture Rank 1
141.6	8	16	Fracture Rank 1
142.2	27	5	Bedding
142.3	328	3	Bedding
142.6	293	44	Fracture Rank 1
142.9	328	3	Bedding
143.0	309	3	Fracture Rank 1
143.1	128	10	Fracture Rank 2
143.3	147	1	Fracture Rank 1
143.4	10	3	Bedding
143.7	348	1	Bedding
143.9	323	4	Fracture Rank 1
144.5	304	3	Fracture Rank 1
145.3	296	3	Bedding
146.0	334	4	Fracture Rank 1
146.5	244	3	Fracture Rank 2
146.7	18	9	Fracture Rank 2
146.9	6	12	Fracture Rank 2
147.1	105	4	Fracture Rank 2
147.2	275	5	Fracture Rank 2
147.4	315	13	Fracture Rank 2
147.7	163	9	Fracture Rank 1
147.9	309	4	Fracture Rank 1
148.2	309	13	Fracture Rank 2

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF16 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	September 27 & 28, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-LIF16 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
130.5	79	5	Fracture Rank 2
130.8	158	8	Fracture Rank 2
131.0	247	9	Fracture Rank 1
131.3	178	10	Fracture Rank 2
131.4	124	7	Fracture Rank 1
131.6	139	13	Fracture Rank 1
131.7	125	15	Fracture Rank 1
131.9	347	4	Fracture Rank 1
132.1	302	10	Fracture Rank 1
132.2	297	9	Fracture Rank 2
132.6	109	8	Fracture Rank 2
132.8	125	13	Fracture Rank 1
132.9	158	9	Fracture Rank 1
133.4	169	3	Fracture Rank 2
134.1	329	2	Fracture Rank 1
134.4	213	13	Fracture Rank 1
136.0	238	30	Fracture Rank 1
136.2	7	10	Fracture Rank 1
136.2	12	10	Fracture Rank 1
137.8	299	12	Fracture Rank 1
138.4	8	3	Bedding
138.8	292	2	Fracture Rank 1
138.8	347	1	Fracture Rank 2
138.9	2	3	Fracture Rank 2
139.6	291	17	Fracture Rank 1
139.7	88	1	Fracture Rank 2
139.9	76	23	Fracture Rank 1
140.6	330	3	Fracture Rank 1
141.0	321	8	Fracture Rank 1
141.2	116	11	Fracture Rank 1
141.4	120	15	Fracture Rank 1
141.8	79	7	Bedding
142.4	342	4	Bedding
143.5	358	10	Fracture Rank 1
144.2	309	15	Fracture Rank 1

SB-BR-LIF16 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
144.3	335	14	Fracture Rank 2
146.1	48	18	Fracture Rank 1
146.2	134	5	Fracture Rank 2
147.3	29	1	Bedding
147.7	168	4	Fracture Rank 1
148.1	187	5	Fracture Rank 1
148.3	146	3	Fracture Rank 1
148.4	156	3	Fracture Rank 1
148.6	28	3	Fracture Rank 1
149.5	7	13	Fracture Rank 2
149.7	106	19	Fracture Rank 2

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF18 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	September 27, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-LIF18 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
110.3	337	26	Fracture Rank 1
110.5	183	3	Bedding
110.8	285	2	Fracture Rank 2
111.1	344	6	Bedding
111.4	325	0	Bedding
111.7	268	1	Bedding
112.2	297	1	Fracture Rank 1
112.3	240	2	Bedding
112.5	221	3	Fracture Rank 2
112.6	87	1	Bedding
112.8	53	5	Bedding
113.0	322	18	Fracture Rank 1
113.7	253	6	Bedding
114.6	113	7	Bedding
116.0	158	16	Fracture Rank 1
116.7	191	6	Fracture Rank 2
116.9	175	78	Fracture Rank 1
118.5	125	75	Fracture Rank 2
119.9	155	10	Bedding
120.4	131	8	Fracture Rank 1
124.3	303	5	Fracture Rank 1
127.8	186	3	Fracture Rank 3
131.3	222	8	Fracture Rank 3
132.4	178	16	Fracture Rank 1
132.5	336	9	Fracture Rank 1
132.6	312	9	Fracture Rank 2
132.7	317	7	Fracture Rank 2
132.9	330	9	Fracture Rank 2
135.2	227	12	Fracture Rank 2
136.6	29	7	Fracture Rank 2
137.5	335	4	Fracture Rank 1
138.8	348	5	Fracture Rank 2
139.4	195	6	Fracture Rank 1
139.4	204	4	Fracture Rank 2
140.0	315	7	Fracture Rank 1

SB-BR-LIF18 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
140.2	198	14	Fracture Rank 1
144.2	43	12	Fracture Rank 1
146.9	231	4	Fracture Rank 2
147.0	204	17	Fracture Rank 2
147.4	167	17	Fracture Rank 2
147.7	210	1	Bedding
147.8	319	72	Fracture Rank 1
148.3	261	3	Bedding
148.5	276	4	Fracture Rank 1
148.9	322	1	Bedding
149.6	129	10	Fracture Rank 1
150.6	184	3	Fracture Rank 2

HAGER-RICHTER GEOSCIENCE, INC.	
SB-BR-LIF22 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Parratt-Wolff, Inc.
PROJECT	GCL Tie and Treating
LOCATION	Sidney, New York
HRGS FILE	22RG24
DATE LOGGED	October 24, 2022
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal

SB-BR-LIF22 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
120.7	88	9	Fracture Rank 1
121.0	293	1	Bedding
121.1	30	4	Fracture Rank 1
121.8	206	9	Fracture Rank 2
121.9	140	5	Bedding
122.1	321	2	Bedding
122.7	3	65	Fracture Rank 1
122.7	175	11	Bedding
123.0	148	6	Bedding
123.3	167	3	Fracture Rank 2
123.4	298	1	Bedding
123.7	157	5	Fracture Rank 3
124.0	203	7	Fracture Rank 2
124.6	347	3	Fracture Rank 1
124.7	214	6	Fracture Rank 2
125.0	326	2	Bedding
125.0	30	4	Fracture Rank 1
125.2	55	3	Fracture Rank 1
125.4	94	2	Bedding
125.5	37	1	Bedding
125.9	46	4	Fracture Rank 2
126.0	92	5	Fracture Rank 1
126.8	321	10	Fracture Rank 1
126.9	27	3	Fracture Rank 3
127.0	105	19	Fracture Rank 1
129.5	233	4	Bedding
129.7	208	6	Fracture Rank 1
130.6	338	7	Fracture Rank 1
130.7	282	1	Bedding
131.6	188	11	Fracture Rank 2
131.7	171	8	Fracture Rank 3
131.8	28	4	Fracture Rank 2
132.0	27	4	Fracture Rank 2
132.1	338	4	Fracture Rank 1
132.3	69	5	Fracture Rank 2

SB-BR-LIF22 - TABLE OF BEDROCK STRUCTURES

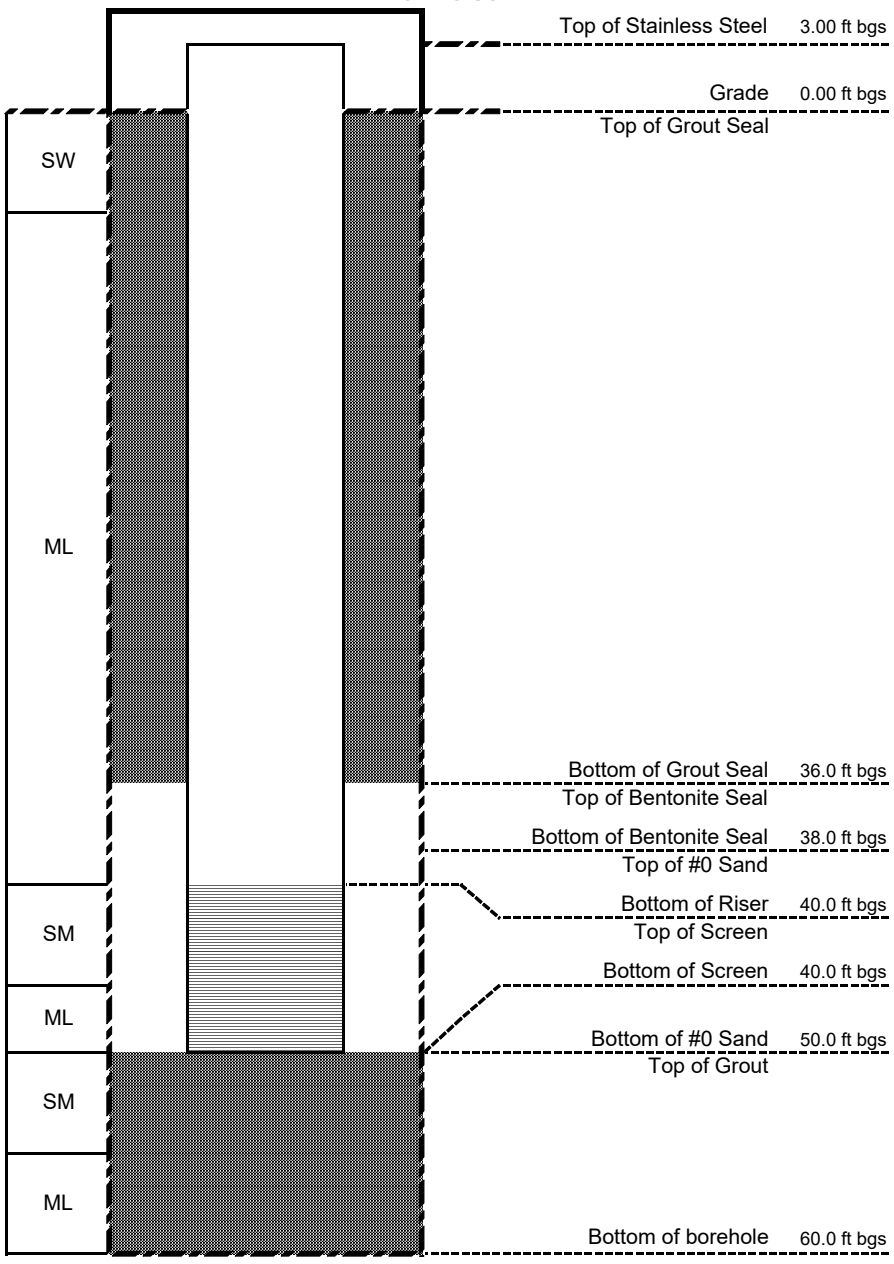
Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Structure Category
132.3	83	4	Fracture Rank 2
133.0	332	3	Fracture Rank 1
133.1	10	4	Fracture Rank 1
134.0	255	3	Fracture Rank 2
134.3	89	3	Fracture Rank 2
134.5	22	2	Bedding
134.9	5	2	Fracture Rank 2
135.2	20	5	Fracture Rank 2
135.2	15	3	Fracture Rank 2
135.3	52	4	Fracture Rank 2
136.1	290	3	Bedding
137.4	354	29	Fracture Rank 1
137.5	285	12	Bedding
137.6	288	24	Fracture Rank 1
138.1	43	11	Bedding
138.3	50	11	Bedding
139.1	44	6	Fracture Rank 1
139.3	294	2	Bedding
139.6	318	2	Bedding
140.1	40	12	Fracture Rank 1
140.2	5	18	Fracture Rank 1
140.8	84	2	Fracture Rank 1
141.1	307	15	Fracture Rank 2
141.1	304	2	Bedding
141.3	270	3	Fracture Rank 2
141.4	316	3	Fracture Rank 2
141.5	333	3	Fracture Rank 1
141.6	320	7	Fracture Rank 1
142.1	186	10	Fracture Rank 2
142.2	338	13	Fracture Rank 2
143.1	238	4	Fracture Rank 2
143.3	257	7	Fracture Rank 1
144.2	65	75	Fracture Rank 1
144.5	353	9	Fracture Rank 1
147.2	30	4	Fracture Rank 1
148.1	77	5	Fracture Rank 1
148.8	340	7	Fracture Rank 2
149.7	51	5	Fracture Rank 1
150.4	53	13	Fracture Rank 2
150.8	58	12	Fracture Rank 1

APPENDIX F

GCL Tie and Treat
Overburden Well: MW-22I

Well ID:	**MW-22I**	**Project:**	**GCL Tie & Treat OU3**
Location:	**Sidney, NY**	**Client:**	**US Army Corp of Engineers**
Drilling Contractor:	**Parratt-Wolff**	**Project Number:**	**10326052**
Date Drilled:	**12/8/2022-12/14/2022**	**Drilling Rig:**	**Boart Longyear LS-250**
Date Completed:	**12/14/2022**	**Drilling Method:**	**Sonic Drilling**
Cover Type:	**Locking Stick-Up**	**Development Method:**	**Surging/Purging**
Grade Elevation:	**Not yet surveyed**	**Key ID or Socket Size:**	**--**
Borehole Depth:	**60 feet**	**Coordinate System:**	**--**
Borehole Diameter:	**6 inches**	**X:** --	**Y:** --

General Well Information	
Well ID:	MW-22I
Start Date:	Dec. 08, 2022
End Date:	Dec. 14, 2022
Static Water Level (ft bgs):	--
Static Water Level Date:	--
Measuring Point:	Top of Casing
Well Depth:	53 ft (50 ft bgs)
Riser Pipe	
Interval (feet below grade):	3 ft ags-40 feet bgs
Material:	Stainless Steel
Diameter:	2
Joint Type:	Flush-Joint Threaded
Outer Casing	
Interval:	No Casing Installed
Material:	Not Applicable
Diameter:	Not Applicable
Joint Type:	Not Applicable
Screen	
Interval (feet):	40-50 feet bgs
Diameter (inches):	2
Material:	Stainless Steel
Slot Size:	10-slot
Filter Pack	
Interval (feet):	38-50 ft bsg
Sand (#1-size):	38-50 ft bgs
Gravel:	Not Applicable
Natural:	Not Applicable
Amount:	Not Applicable
Sump	
Interval (feet):	No Sump Installed
Diameter (inches):	Not Applicable
Material:	Not Applicable
Joint Type:	Not Applicable
Seals/Quantity	
Cement-Bentonite Grout:	0-36 ft bgs
Bentonite Slurry:	Not Applicable
Bentonite Chips:	36-38 ft bgs
Cement-Bentonite Grout:	50-60 ft bgs
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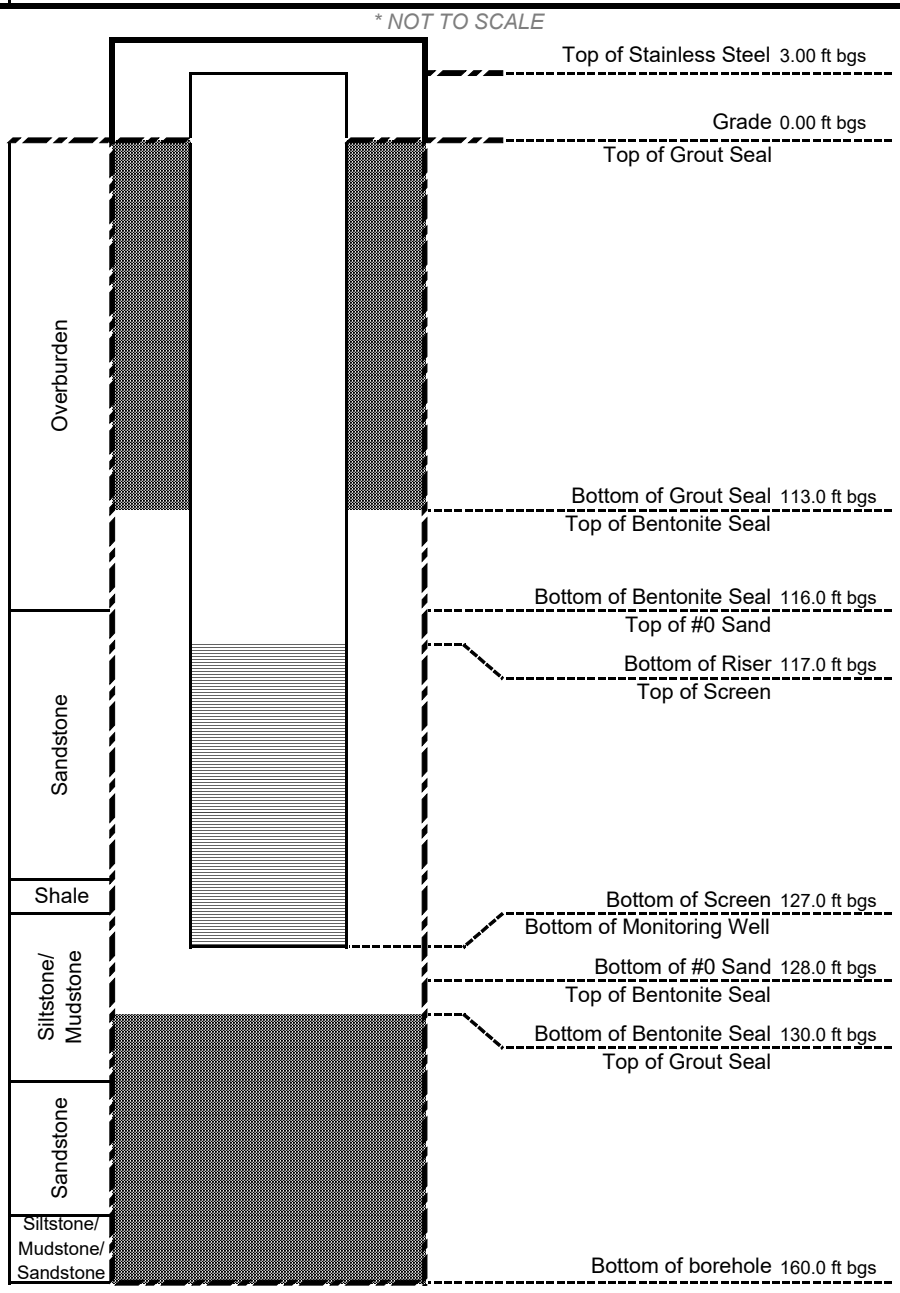


WGS: Wideband Global SATCOM
GPS: Global Positioning System
PSI: Pounds per square inch
ft: feet
bgs: below grade surface
ags: above grade surface
smpl.: sample
press.: pressure
ML: Silt
CH: Fat clay
CL: Lean clay
SP: Poorly-graded sand
SW: Well-graded sand
SM: Silty sand

GCL Tie and Treat
Overburden Well: MW-22I

Well ID:	**MW-22B**	**Project:**	**GCL Tie & Treat OU3**
Location:	**Sidney, NY**	**Client:**	**US Army Corp of Engineers**
Drilling Contractor:	**Parratt-Wolff**	**Project Number:**	**10326052**
Date Drilled:	**11/10/2022-11/14/2022**	**Drilling Rig:**	**Boart Longyear LS-250 / Diedrich D-90**
Date Completed:	**1/5/2023**	**Drilling Method:**	**Sonic Drilling / Rock Coring**
Cover Type:	**Locking Stick-Up**	**Development Method:**	**Surging/Purging**
Grade Elevation:	**Not yet surveyed**	**Key ID or Socket Size:**	**--**
Borehole Depth:	**160 feet**	**Coordinate System:**	**--**
Borehole Diameter:	**6 inches**	**X:** --	**Y:** --

General Well Information	
Well ID:	MW-22B
Start Date:	Nov. 10, 2022
End Date:	Jan. 05, 2023
Static Water Level (ft bgs):	17.96 ft bgs
Static Water Level Date:	Jan. 12, 2023
Measuring Point:	Top of Casing
Well Depth:	130 ft (127 ft bgs)
Riser Pipe	
Interval (feet below grade):	3 ft ags-117 ft bgs
Material:	Stainless Steel
Diameter:	2 inches
Joint Type:	Flush-Joint Threaded
Outer Casing	
Interval:	3 ft ags-40 ft bgs
Material:	Steel
Diameter:	6 inches
Joint Type:	Flush-Joint Threaded
Screen	
Interval (feet):	117-127 ft bgs
Diameter (inches):	2 inches
Material:	Stainless Steel
Slot Size:	10-slot
Filter Pack	
Interval (feet):	116-128 ft bgs
Sand (#0-size):	116-128 ft bgs
Pre-packed Screen:	117-127 ft bgs
Natural:	Not Applicable
Amount:	Not Applicable
Sump	
Interval (feet):	No Sump Installed
Diameter (inches):	Not Applicable
Material:	Not Applicable
Joint Type:	Not Applicable
Seals/Quantity	
Cement-Bentonite Grout:	0-113 ft bgs
Bentonite (⅜-inch pellets):	113-116 ft bgs
Bentonite (⅜-inch pellets):	128-130 ft bgs
Cement-Bentonite Grout:	130-160 ft bgs
--	--



WGS: Wideband Global SATCOM
GPS: Global Positioning System
PSI: Pounds per square inch
ft: feet
bgs: below grade surface
ags: above grade surface
smpl.: sample
press.: pressure
ML: Silt
CH: Fat clay
CL: Lean clay
SP: Poorly-graded sand
SW: Well-graded sand
SM: Silty sand

APPENDIX G

Well Sampling Log

Well ID No.: EW-1I

Well Casing Type:	Steel	**Start SWL:**	18.95	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	56.3	**Water Column Ht.:**	37.35	**Date:**	11/18/2022
Screened Interval (ft):	41.3 - 56.3	**Well Volume (gallons):**	--	**Crew:**	LFB
Well Elevation:**	997.27	**SWL During Sampling:**	19.60	**Pump Intake (ft)**	51.30
Well Diameter (in.)	--	**Sample Time:**	11:30	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	SUNNY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	EW-1I-20221118

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
10:35	--	0.200	9.51	0.87	17	1.50	6.02	--	--	19	18.95	--
10:40	1.0	0.200	9.35	0.88	-2	0.78	5.99	--	--	113.5	19.41	--
10:45	2.0	0.200	9.39	0.88	-9	0.66	5.99	--	--	7.65	19.45	--
10:50	3.0	0.200	9.32	0.88	-12	0.60	6	--	--	9.87	19.51	--
10:55	4.0	0.200	9.31	0.88	-14	0.53	6.00	--	--	10.12	19.56	--
11:00	5.0	0.200	9.10	0.86	-16	0.51	6.00	--	--	8.67	19.60	--
11:05	6.0	0.200	8.94	0.87	-17	0.49	5.99	--	--	6.54	19.60	--
11:10	7.0	0.200	9.28	0.90	-20	0.65	6.01	--	--	5.12	19.60	--
11:15	8.0	0.200	9.32	0.90	-20	0.51	5.99	--	--	5.76	19.60	--
11:20	9.0	0.200	9.32	0.89	-21	0.45	5.98	--	--	4.21	19.60	--
11:25	10.0	0.200	9.32	0.89	-21	0.44	5.98	--	--	5.01	19.60	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: EW-2I

Well Casing Type:	Steel	**Start SWL:**	18.1	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	59.4	**Water Column Ht.:**	41.30	**Date:**	11/18/2022
Screened Interval (ft):	45.4 - 59.4	**Well Volume (gallons):**	23.59	**Crew:**	LJR
Well Elevation:**	997.5	**SWL During Sampling:**	18.45	**Pump Intake (ft)**	52.40
Well Diameter (in.)	7	**Sample Time:**	9:45	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	CLEAR, WINDY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	EW-2I-20221118

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
8:55	--	2.500	9.00	1.27	159	5.06	5.61	--	--	1.2	18.10	--
9:00	12.5	0.500	9.28	1.31	120	3.26	5.93	--	--	0	18.45	--
9:05	15.0	0.200	9.17	1.31	107	2.39	5.98	--	--	0	18.48	--
9:10	16.0	0.200	8.84	1.31	100	1.91	5.98	--	--	0	18.48	--
9:15	17.0	0.200	9.05	1.32	94	1.61	5.98	--	--	0	18.46	--
9:20	18.0	0.200	8.87	1.32	91	1.32	5.98	--	--	0	18.45	--
9:25	19.0	0.200	8.91	1.32	87	1.09	6.00	--	--	0	18.45	--
9:30	20.0	0.200	8.96	1.33	87	0.95	6	--	--	0	18.45	--
9:35	21.0	0.200	8.99	1.33	86	0.88	6	--	--	0	18.45	--
9:40	22.0	0.200	8.98	1.33	85	0.85	5.99	--	--	0	18.45	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:
* - Measurement taken from top of well casing
Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.
Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: EW-3I

Well Casing Type:	Steel	**Start SWL:**	13.6	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	60.5	**Water Column Ht.:**	46.90	**Date:**	11/18/2022
Screened Interval (ft):	45.5 - 60.5	**Well Volume (gallons):**	26.79	**Crew:**	LFB
Well Elevation:**	995.45	**SWL During Sampling:**	14.60	**Pump Intake (ft)**	55.50
Well Diameter (in.)	7	**Sample Time:**	9:45	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	SUNNY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	EW-3I-20221118

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
8:55	--	0.300	9.59	0.89	120	3.30	5.76	--	--	603	13.60	--
9:00	1.5	0.300	9.51	0.90	105	1.27	5.76	--	--	124	14.10	--
9:05	3.0	0.300	9.39	0.90	100	0.95	5.77	--	--	107	14.30	--
9:10	4.5	0.300	9.41	0.90	99	0.76	5.78	--	--	107	14.40	--
9:15	6.0	0.300	9.48	0.90	94	0.66	5.77	--	--	93.2	14.50	--
9:20	7.5	0.300	9.80	0.89	93	0.57	5.77	--	--	73.2	14.60	--
9:25	9.0	0.300	9.62	0.89	92	0.50	5.77	--	--	43.2	14.60	--
9:30	10.5	0.300	9.80	0.89	91	0.46	5.77	--	--	38.1	14.60	--
9:35	12.0	0.300	9.77	0.89	89	0.43	5.77	--	--	35.9	14.60	--
9:40	13.5	0.300	9.64	0.89	89	0.41	5.77	--	--	34.3	14.60	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:
* - Measurement taken from top of well casing
Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.
Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: EW-4I

Well Casing Type:	Steel	**Start SWL:**	25.1	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	90.5	**Water Column Ht.:**	65.40	**Date:**	11/16/2022
Screened Interval (ft):	70.7 - 90.7	**Well Volume (gallons):**	37.36	**Crew:**	LJR
Well Elevation:**	949.5	**SWL During Sampling:**	25.83	**Pump Intake (ft)**	80.70
Well Diameter (in.)	7	**Sample Time:**	11:20	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	35°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	EW-4I-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
10:35	--	0.300	10.79	0.89	-29	4.46	6.33	--	--	7.8	25.10	--
10:40	1.5	0.300	11.38	0.90	-37	2.66	6.26	--	--	0	25.10	--
10:45	3.0	0.250	11.64	0.90	-40	2.03	6.24	--	--	0	25.70	--
10:50	4.3	0.250	11.66	0.90	-40	1.78	6.22	--	--	0	25.76	--
10:55	5.5	0.250	11.62	0.89	-41	1.54	6.23	--	--	0	25.78	--
11:00	6.8	0.250	11.62	0.89	-42	1.50	6.23	--	--	0	25.80	--
11:05	8.0	0.250	11.60	0.89	-43	1.13	6.22	--	--	0	25.83	--
11:10	9.3	0.250	11.64	0.89	-43	1.01	6.23	--	--	0	25.82	--
11:15	10.5	0.250	11.59	0.89	-43	1.02	6.23	--	--	0	25.83	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: NEGATIVE READINGS ON LAMOTTE. HORIBA READINGS RECORDED.

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: EW-5I

Well Casing Type:	Steel	**Start SWL:**	18.5	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	55.1	**Water Column Ht.:**	36.60	**Date:**	11/17/2022
Screened Interval (ft):	35.1 - 55.1	**Well Volume (gallons):**	17.92	**Crew:**	LFB
Well Elevation:**	995.84	**SWL During Sampling:**	18.75	**Pump Intake (ft)**	50.10
Well Diameter (in.)	6	**Sample Time:**	12:35	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:		**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	EW-5I-20221117

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
11:50	--	0.500	9.73	6.67	-82	1.13	6.65	--	--	20	18.50	--
11:55	2.5	0.500	9.89	1.13	-67	17.17	7.59	--	--	20.3	18.48	--
12:00	5.0	0.500	9.23	1.13	-62	14.21	7.53	--	--	17.9	18.57	--
12:05	7.5	0.500	9.05	1.13	-60	11.65	7.52	--	--	13.1	18.65	--
12:10	10.0	0.500	8.99	1.13	-60	10.64	7.51	--	--	13.1	18.71	--
12:15	12.5	0.500	8.88	1.13	-61	10.10	7.51	--	--	12.3	18.75	--
12:20	15.0	0.500	8.26	1.13	-61	9.63	7.51	--	--	12.8	18.75	--
12:25	17.5	0.500	8.29	1.13	-60	9.29	7.51	--	--	12.7	18.75	--
12:30	20.0	0.500	8.29	1.13	-60	9.14	7.51	--	--	12.6	18.75	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:
* - Measurement taken from top of well casing
Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.
Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: PZ-01I

Well Casing Type:	Schedule-40 PVC	**Start SWL:**	6.19	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	52.1	**Water Column Ht.:**	45.91	**Date:**	11/21/2022
Screened Interval (ft):	41.7 - 51.7	**Well Volume (gallons):**	7.49	**Crew:**	LJR,LFB
Well Elevation:**	994.3	**SWL During Sampling:**	10.28	**Pump Intake (ft)**	46.70
Well Diameter (in.)	2	**Sample Time:**	12:40	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	CLEAR, 34°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	PZ-01I-20221121

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
11:55	--	0.250	9.30	1.27	-108	5.43	7.29	--	--	166	6.19	--
12:00	1.3	0.250	9.48	1.25	-129	2.44	7.23	--	--	175	10.20	--
12:05	2.5	0.200	9.67	1.25	-132	2.11	7.2	--	--	175	10.18	--
12:10	3.5	0.175	10.18	1.25	-144	1.51	7.2	--	--	198	10.22	--
12:15	4.4	0.175	10.36	1.25	-151	1.32	7.25	--	--	247	10.25	--
12:20	5.3	0.175	10.57	1.23	-156	1.14	7.27	--	--	242	10.26	--
12:25	6.1	0.175	10.60	1.22	-161	1.02	7.32	--	--	198	10.27	--
12:30	7.0	0.175	10.63	1.21	-166	1.00	7.35	--	--	201	10.28	--
12:35	7.9	0.175	10.61	1.20	-167	0.98	7.37	--	--	197	10.28	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: PZ-03S

Well Casing Type:	Schedule-40 PVC	**Start SWL:**	5.43	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	15	**Water Column Ht.:**	9.57	**Date:**	11/16/2022
Screened Interval (ft):	4.6 - 14.6	**Well Volume (gallons):**	1.56	**Crew:**	LJR
Well Elevation:**	995.33	**SWL During Sampling:**	5.54	**Pump Intake (ft)**	9.60
Well Diameter (in.)	2	**Sample Time:**	12:55	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 35°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	PZ-03S-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
12:10	--	0.550	12.58	0.56	73	9.29	5.87	--	--	48	5.43	--
12:15	2.8	0.400	12.65	0.56	84	7.79	5.86	--	--	26	5.48	--
12:20	4.8	0.400	13.04	0.54	96	7.69	5.77	--	--	13.2	5.50	--
12:25	6.8	0.400	13.08	0.54	106	7.69	5.78	--	--	4.93	5.52	--
12:30	8.8	0.400	13.05	0.53	117	7.34	5.70	--	--	1.48	5.51	--
12:35	10.8	0.400	13.01	0.53	118	7.27	5.72	--	--	1.24	5.53	--
12:40	12.8	0.400	13.08	0.53	122	7.23	5.71	--	--	2.47	5.53	--
12:45	14.8	0.400	13.14	0.53	126	7.17	5.7	--	--	3.44	5.53	--
12:50	16.8	0.400	13.17	0.53	125	7.16	5.73	--	--	1.22	5.54	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: --

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-01S

Well Casing Type:	Stainless Steel	**Start SWL:**	6.64	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	16	**Water Column Ht.:**	9.36	**Date:**	11/14/2022
Screened Interval (ft):	8.0 - 22.0	**Well Volume (gallons):**	3.06	**Crew:**	LFB,LJR
Well Elevation:**	997.13	**SWL During Sampling:**	6.64	**Pump Intake (ft)**	19.00
Well Diameter (in.)	4	**Sample Time:**	12:55	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	CLOUDY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-01S-20221114

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
11:25	--	0.400	11.90	1.32	232	13.60	5.67	--	--	6.07	6.64	--
11:30	2.0	0.400	11.32	1.32	187	10.75	5.99	--	--	4.76	6.87	--
11:35	4.0	0.400	11.41	1.32	186	9.46	5.89	--	--	5.72	6.91	--
11:40	6.0	0.200	11.38	1.33	186	8.23	5.83	--	--	0.81	6.75	--
11:45	7.0	0.200	11.64	1.32	189	6.89	5.81	--	--	2.62	6.64	--
11:50	8.0	0.200	11.72	1.32	191	6.67	5.81	--	--	4.26	6.64	--
11:55	9.0	0.200	11.68	1.32	193	6.18	5.83	--	--	2.44	6.64	--
12:00	10.0	0.200	11.75	1.32	194	5.66	5.86	--	--	2.27	6.64	--
12:05	11.0	0.200	11.76	1.32	194	5.33	5.87	--	--	1.88	6.64	--
12:10	12.0	0.200	11.66	1.32	193	5.03	5.89	--	--	1.64	6.64	--
12:15	13.0	0.200	11.79	1.31	193	4.78	5.90	--	--	1.66	6.64	--
12:20	14.0	0.200	11.76	1.31	192	4.49	5.91	--	--	1.33	6.64	--
12:25	15.0	0.200	11.78	1.31	193	4.24	5.92	--	--	1.72	6.64	--
12:30	16.0	0.200	11.77	1.30	193	3.96	5.93	--	--	1.64	6.64	--
12:35	17.0	0.200	11.74	1.30	193	3.68	5.95	--	--	1.32	6.64	--
12:40	18.0	0.200	11.65	1.30	193	3.42	5.96	--	--	1.41	6.64	--
12:45	19.0	0.200	11.74	1.30	193	3.19	5.97	--	--	1.47	6.64	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-01D

Well Casing Type:	Stainless Steel	**Start SWL:**	9.21	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	74	**Water Column Ht.:**	64.79	**Date:**	11/14/2022
Screened Interval (ft):	65.2 - 75.2	**Well Volume (gallons):**	42.29	**Crew:**	LJR,LFB
Well Elevation:**	995.66	**SWL During Sampling:**	10.55	**Pump Intake (ft)**	70.00
Well Diameter (in.)	8	**Sample Time:**	13:55	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	LIGHT SNOW, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-01D-20221114

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
13:05	--	--	--	--	--	--	--	--	--	--	9.21	--
13:10		0.200	10.24	1.26	-44	2.02	7.19	--	--	21.2	9.53	--
13:15		0.200	10.19	1.25	-58	1.54	7.21	--	--	18.7	9.74	--
13:20		0.200	10.35	1.24	-71	0.84	7.23	--	--	17.4	9.99	--
13:25		0.200	10.36	1.23	-77	0.71	7.24	--	--	22.4	10.71	--
13:30		0.200	10.30	1.20	-87	0.62	7.27	--	--	18.2	10.76	--
13:35		0.200	10.25	1.18	-89	0.51	7.28	--	--	16.4	10.55	--
13:40		0.200	10.21	1.17	-90	0.50	7.28	--	--	15.5	10.55	--
13:45		0.200	10.19	1.16	-93	0.51	7.28	--	--	14.4	10.55	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:
* - Measurement taken from top of well casing
Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.
Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-02S

Well Casing Type:	Stainless Steel	**Start SWL:**	8.05	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	19	**Water Column Ht.:**	10.95	**Date:**	11/17/2022
Screened Interval (ft):	11.9 - 21.9	**Well Volume (gallons):**	3.57	**Crew:**	LJR
Well Elevation:**	995.88	**SWL During Sampling:**	13.20	**Pump Intake (ft)**	16.70
Well Diameter (in.)	4	**Sample Time:**	14:45	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	SNOW, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-02S-20221117

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
14:00	--	0.900	8.96	0.38	-48	6.87	6.27	--	--	830	8.05	--
14:05	4.5	0.900	10.68	0.71	-20	1.56	5.81	--	--	234	8.56	--
14:10	9.0	0.900	10.87	0.67	-17	1.31	5.75	--	--	58.1	9.40	--
14:15	13.5	0.350	10.76	0.68	-16	1.07	5.91	--	--	88.9	10.65	--
14:20	15.3	0.200	10.58	0.64	-18	0.82	5.72	--	--	5.8	11.05	--
14:25	16.3	0.250	10.24	0.61	-17	0.74	5.69	--	--	4.7	11.42	--
14:30	17.5	0.250	10.86	0.66	-16	0.61	5.61	--	--	19.9	12.20	--
14:35	18.8	0.300	10.98	0.60	-16	0.57	5.65	--	--	15.6	12.60	--
14:40	20.3	0.300	11.02	0.60	-12	0.52	5.65	--	--	12.2	13.20	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:
* - Measurement taken from top of well casing
Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.
Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-02I

Well Casing Type:	Stainless Steel	**Start SWL:**	7.45	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	35	**Water Column Ht.:**	27.55	**Date:**	11/17/2022
Screened Interval (ft):	27.0 - 37.0	**Well Volume (gallons):**	8.99	**Crew:**	LFB
Well Elevation:**	995.06	**SWL During Sampling:**	8.90	**Pump Intake (ft)**	32.00
Well Diameter (in.)	4	**Sample Time:**	15:10	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:		**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-02I-20221117

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
14:05	--	0.200	8.43	0.86	-64	12.92	6.93	--	--	61.6	7.95	--
14:10	1.0	0.200	8.59	0.86	-58	10.92	6.83	--	--	31.7	8.60	--
14:15	2.0	0.200	8.42	0.86	-60	9.89	6.82	--	--	26.7	8.80	--
14:20	3.0	0.200	8.33	0.86	-62	9.44	6.81	--	--	21.4	8.85	--
14:25	4.0	0.200	8.26	0.86	-64	8.92	6.80	--	--	19.1	8.87	--
14:30	5.0	0.200	8.15	0.86	-65	8.70	6.79	--	--	19.1	8.90	--
14:35	6.0	0.200	8.41	0.85	-66	11.30	6.86	--	--	25.4	8.90	--
14:40	7.0	0.200	8.52	0.85	-56	9.09	6.63	--	--	22.7	8.90	--
14:45	8.0	0.200	8.47	0.85	-57	8.39	6.59	--	--	21.2	8.90	--
14:50	9.0	0.200	8.48	0.84	-59	7.52	6.6	--	--	21.7	8.90	--
14:55	10.0	0.200	8.67	0.84	-59	6.84	6.57	--	--	22.1	8.90	--
15:00	11.0	0.200	8.74	0.85	-60	6.44	6.59	--	--	23.1	8.90	--
15:05	12.0	0.200	8.58	0.85	-62	6.17	6.61	--	--	22.4	8.90	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-03I

Well Casing Type:	Stainless Steel	**Start SWL:**	16.75	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	60	**Water Column Ht.:**	43.25	**Date:**	11/18/2022
Screened Interval (ft):	51.9 - 61.9	**Well Volume (gallons):**	14.12	**Crew:**	LJR
Well Elevation:**	994.51	**SWL During Sampling:**	17.35	**Pump Intake (ft)**	56.90
Well Diameter (in.)	4	**Sample Time:**	11:20	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	SUNNY, WINDY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-3I-20221118

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
10:25	--	1.000	9.97	0.19	-37	5.01	6.22	--	--	56.7	16.75	--
10:30	5.0	0.700	10.13	0.17	-39	2.77	6.39	--	--	48.5	17.70	--
10:35	8.5	0.250	10.17	0.23	-33	1.65	6.14	--	--	34.1	17.88	--
10:40	9.8	0.250	10.21	0.27	-43	1.20	6.24	--	--	26.9	17.68	--
10:45	11.0	0.250	10.18	0.28	-45	1.03	6.25	--	--	14.5	17.48	--
10:50	12.3	0.200	9.79	0.37	-47	0.83	6.22	--	--	8.39	17.46	--
10:55	13.3	0.200	9.76	0.43	-49	0.73	6.25	--	--	5.86	17.39	--
11:00	14.3	0.200	9.76	0.46	-50	0.69	6.38	--	--	5.34	17.38	--
11:05	15.3	0.200	9.84	0.52	-52	0.66	6.26	--	--	5.24	17.35	--
11:10	16.3	0.200	9.93	0.54	-52	0.61	6.22	--	--	5.15	17.35	--
11:15	17.3	0.200	9.95	0.54	-53	0.59	6.22	--	--	5.31	17.35	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-07S

Well Casing Type:	Stainless Steel	**Start SWL:**	9.05	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	18	**Water Column Ht.:**	8.95	**Date:**	11/21/2022
Screened Interval (ft):	9.9 - 19.9	**Well Volume (gallons):**	2.92	**Crew:**	LFB
Well Elevation:**	998.39	**SWL During Sampling:**	9.05	**Pump Intake (ft)**	16.00
Well Diameter (in.)	4	**Sample Time:**	10:35	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	CLEAR, 25°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-07S-20221121

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
9:55	--	0.250	11.32	0.20	132	4.04	6.2	--	--	476	9.05	--
10:00	1.3	0.250	11.20	0.16	90	1.84	6.52	--	--	205	9.05	--
10:05	2.5	0.250	11.68	0.15	80	1.14	6.58	--	--	57.3	9.05	--
10:10	3.8	0.250	12.05	0.15	75	0.81	6.62	--	--	26.9	9.05	--
10:15	5.0	0.250	12.07	0.15	73	0.68	6.63	--	--	18.6	9.05	--
10:20	6.3	0.250	12.13	0.14	71	0.60	6.65	--	--	6.5	9.05	--
10:25	7.5	0.250	11.92	0.14	70	0.55	6.67	--	--	4.1	9.05	--
10:30	8.8	0.250	11.84	0.14	70	0.51	6.68	--	--	3.6	9.05	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-07I

Well Casing Type:	Stainless Steel	**Start SWL:**	23.41	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	48	**Water Column Ht.:**	24.59	**Date:**	11/21/2022
Screened Interval (ft):	40.2 - 50.2	**Well Volume (gallons):**	8.03	**Crew:**	LJR
Well Elevation:**	999.7	**SWL During Sampling:**	24.71	**Pump Intake (ft)**	45.20
Well Diameter (in.)	4	**Sample Time:**	10:55	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	CLEAR, 28°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-07I-20221121

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
9:55	--	0.600	9.19	0.74	159	5.57	5.54	--	--	10.25	23.41	--
10:00	3.0	0.200	9.16	0.77	25	3.30	6.66	--	--	6.67	24.17	--
10:05	4.0	0.200	8.87	0.77	-20	2.33	7	--	--	6.59	24.11	--
10:10	5.0	0.200	8.58	0.76	-44	1.96	7.22	--	--	5.12	24.08	--
10:15	6.0	0.200	8.67	0.77	-65	1.49	7.38	--	--	4.35	24.04	--
10:20	7.0	0.200	8.55	0.77	-68	1.46	7.42	--	--	5.02	24.02	--
10:25	8.0	0.250	8.38	0.76	-69	1.48	7.45	--	--	5.89	24.18	--
10:30	9.3	0.350	9.83	0.75	-79	1.21	7.51	--	--	4.22	24.30	--
10:35	11.0	0.350	9.99	0.74	-92	1.00	7.58	--	--	5.31	24.60	--
10:40	12.8	0.350	10.01	0.74	-100	0.90	7.62	--	--	4.78	24.65	--
10:45	14.5	0.350	10.05	0.73	-103	0.85	7.64	--	--	4.36	24.68	--
10:50	16.3	0.350	10.04	0.73	-105	0.83	7.66	--	--	5.12	24.71	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: MODERATE SULFUR ODOR IN PURGE WATER. HAT TO HAVE PUMP UP AT 10:25 TO PREVENT FROM FLOW STOP.

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-08DI

Well Casing Type:	PVC	**Start SWL:**	28.1	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	110	**Water Column Ht.:**	81.90	**Date:**	11/16/2022
Screened Interval (ft):	100.0 - 110.0	**Well Volume (gallons):**	13.37	**Crew:**	LFB
Well Elevation:**	974	**SWL During Sampling:**	28.40	**Pump Intake (ft)**	105.00
Well Diameter (in.)	2	**Sample Time:**	11:10	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	CLOUDY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-08DI-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
10:10	--	0.350	10.87	0.67	-103	5.61	6.98	--	--	36	28.10	--
10:15	1.8	0.350	11.17	1.15	-52	1.84	6.05	--	--	280	28.40	--
10:20	3.5	0.350	11.38	1.24	-43	1.20	6.12	--	--	187	28.40	--
10:25	5.3	0.350	11.46	1.32	-37	0.94	6.16	--	--	132	28.40	--
10:30	7.0	0.350	11.50	1.39	-30	0.77	6.22	--	--	69.4	28.40	--
10:35	8.8	0.350	11.43	1.42	-26	0.66	6.26	--	--	65.1	28.40	--
10:40	10.5	0.350	11.43	1.42	-24	0.65	6.26	--	--	57.7	28.40	--
10:45	12.3	0.350	11.43	1.44	-16	0.81	6.26	--	--	53	28.40	--
10:50	14.0	0.350	11.47	1.43	-17	0.62	6.26	--	--	47.7	28.40	--
10:55	15.8	0.350	11.47	1.45	-15	0.59	6.27	--	--	51	28.40	--
11:00	17.5	0.350	11.47	1.45	-13	0.56	6.27	--	--	47.9	28.40	--
11:05	19.3	0.350	11.47	1.45	-12	0.54	6.26	--	--	49.9	28.40	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-08B

Well Casing Type:	Schedule-80 PVC	**Start SWL:**	22.2	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	115	**Water Column Ht.:**	92.80	**Date:**	11/16/2022
Screened Interval (ft):	106.4 - 121.4	**Well Volume (gallons):**	15.14	**Crew:**	LFB
Well Elevation:**	995.83	**SWL During Sampling:**	23.10	**Pump Intake (ft)**	115.00
Well Diameter (in.)	2	**Sample Time:**	13:15	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	CLOUDY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-08B-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
12:55	--	0.500	9.39	0.75	-125	6.32	7.39	--	--	53.3	22.20	--
13:00	2.5	0.500	10.04	1.07	-136	1.88	7.05	--	--	21.3	23.05	--
13:05	5.0	0.500	10.10	1.16	-107	1.25	6.82	--	--	14.4	23.10	--
13:10	7.5	0.500	10.17	1.18	-84	1.04	6.73	--	--	10.8	23.10	--
13:15	10.0	0.500	10.16	1.19	-60	0.89	6.67	--	--	8.5	23.10	--
13:20	12.5	0.500	10.23	1.19	-45	0.79	6.65	--	--	6.4	23.10	--
13:25	15.0	0.500	10.43	1.18	-30	0.84	6.64	--	--	4.9	23.10	--
13:30	17.5	0.500	10.47	1.18	-22	0.70	6.64	--	--	3.5	23.10	--
13:35	20.0	0.500	10.47	1.18	-17	0.66	6.63	--	--	2.7	23.10	--
13:40	22.5	0.500	10.47	1.19	-11	0.63	6.63	--	--	2.1	23.10	--
13:45	25.0	0.500	10.45	1.19	-6	0.60	6.63	--	--	2.7	23.10	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-10I

Well Casing Type:	Schedule-80 PVC	**Start SWL:**	25.56	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	70	**Water Column Ht.:**	44.44	**Date:**	11/15/2022
Screened Interval (ft):	54.7 - 69.7	**Well Volume (gallons):**	14.51	**Crew:**	LJR,LFB
Well Elevation:**	998.32	**SWL During Sampling:**	26.33	**Pump Intake (ft)**	62.20
Well Diameter (in.)	4	**Sample Time:**	12:30	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 32°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-10I-20221115

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
11:35	--	0.350	13.69	0.51	9	3.15	8.41	--	--	298	25.56	--
11:40	1.8	0.350	13.45	0.51	-12	2.37	8.45	--	--	244	26.33	--
11:45	3.5	0.350	13.99	0.51	-20	1.97	8.45	--	--	243	26.32	--
11:50	5.3	0.350	14.10	0.51	-24	1.94	8.43	--	--	193	26.32	--
11:55	7.0	0.350	14.29	0.51	-25	1.70	8.39	--	--	152	26.32	--
12:00	8.8	0.350	14.18	0.51	-22	61.76	8.37	--	--	121	26.33	--
12:05	10.5	0.350	14.26	0.50	-24	1.49	8.35	--	--	13.6	26.32	--
12:10	12.3	0.350	14.17	0.50	-24	1.30	8.34	--	--	13.5	26.32	--
12:15	14.0	0.350	14.22	0.50	-23	1.24	8.33	--	--	11.3	26.33	--
12:20	15.8	0.350	14.23	0.50	-27	1.22	8.33	--	--	12.4	26.33	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: TURBIDITY READINGS FROM HORIBA-LAMOTTE READING NEGATIVELAMOOTE BEGAN READING NORMALLY, READING STARTING AT 12:05

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-10B

Well Casing Type:	Open Hole	**Start SWL:**	25.8	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	160	**Water Column Ht.:**	134.20	**Date:**	11/15/2022
Screened Interval (ft):	149.8 - 159.8	**Well Volume (gallons):**	65.70	**Crew:**	LFB
Well Elevation:**	998.1	**SWL During Sampling:**	26.80	**Pump Intake (ft)**	154.80
Well Diameter (in.)	6	**Sample Time:**	12:40	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	CLOUDY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-10B-20221115

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
11:25	--	0.300	12.26	1.40	-46	2.15	9.2	--	--	8.61	25.80	--
11:30	1.5	0.300	12.43	1.40	-80	1.19	9.3	--	--	17.8	26.30	--
11:35	3.0	0.300	12.26	1.40	-91	0.77	9.3	--	--	15	26.60	--
11:40	4.5	0.300	12.02	1.40	-94	0.76	9.32	--	--	13.9	26.70	--
11:45	6.0	0.300	11.59	1.39	-95	0.76	9.36	--	--	13.1	26.80	--
11:50	7.5	0.300	11.57	1.36	-36	0.74	9.27	--	--	11.9	26.80	--
11:55	9.0	0.300	11.35	1.41	-47	0.74	9.31	--	--	11.6	26.80	--
12:00	10.5	0.300	11.29	1.41	-52	0.74	9.32	--	--	11	26.80	--
12:05	12.0	0.300	12.99	1.41	-62	0.78	9.35	--	--	8	26.80	--
12:10	13.5	0.300	12.90	1.40	-70	0.58	9.38	--	--	6	26.80	--
12:15	15.0	0.300	12.83	1.41	-77	0.46	9.40	--	--	5.8	26.80	--
12:20	16.5	0.300	12.75	1.40	-82	0.42	9.42	--	--	5.4	26.80	--
12:25	18.0	0.300	12.60	1.40	-84	0.42	9.43	--	--	5.2	26.80	--
12:30	19.5	0.300	12.60	1.39	-84	0.43	9.44	--	--	5.3	26.80	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-11I

Well Casing Type:	Schedule-80 PVC	**Start SWL:**	29.51	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	105	**Water Column Ht.:**	75.49	**Date:**	11/15/2022
Screened Interval (ft):	94.7 - 104.7	**Well Volume (gallons):**	24.64	**Crew:**	MTP,DTS
Well Elevation:**	1002.49	**SWL During Sampling:**	29.69	**Pump Intake (ft)**	99.70
Well Diameter (in.)	4	**Sample Time:**	14:40	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	OVERCAST, CALM, 36°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-11I-20221115

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
14:00	--	0.250	11.04	0.61	52	2.04	6.67	--	--	5.43	29.51	--
14:05	1.3	0.250	11.10	0.61	36	1.36	6.54	--	--	4.54	29.64	--
14:10	2.5	0.250	10.98	0.60	27	0.92	6.45	--	--	4.11	29.70	--
14:15	3.8	0.250	11.05	0.60	22	0.70	6.36	--	--	4.5	29.96	--
14:20	5.0	0.250	11.12	0.60	21	0.57	6.35	--	--	4.65	29.70	--
14:25	6.3	0.250	11.09	0.60	20	0.56	6.32	--	--	5.05	29.90	--
14:30	7.5	0.250	11.10	0.59	19	0.54	6.31	--	--	4.91	29.69	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:
* - Measurement taken from top of well casing
Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.
Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-11B

Well Casing Type:	Schedule-80 PVC	**Start SWL:**	29	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	170	**Water Column Ht.:**	141.00	**Date:**	11/15/2022
Screened Interval (ft):	149.7 - 169.7	**Well Volume (gallons):**	23.01	**Crew:**	LFB
Well Elevation:**	1002.51	**SWL During Sampling:**	34.40	**Pump Intake (ft)**	159.70
Well Diameter (in.)	2	**Sample Time:**	15:15	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:		**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-11B-20221115

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
14:00	--	0.250	9.87	0.37	-103	13.62	8.13	--	--	60.5	26.00	--
14:05	1.3	0.250	10.16	0.37	-110	13.37	8.1	--	--	60	31.80	--
14:10	2.5	0.250	10.20	0.37	-119	12.99	8.44	--	--	54.1	32.15	--
14:15	3.8	0.250	10.11	0.40	-140	12.84	8.59	--	--	24	32.35	--
14:20	5.0	0.250	10.30	0.57	-189	12.23	9.15	--	--	767	32.50	--
14:25	6.3	0.250	10.24	0.60	-172	11.67	10.28	--	--	729	33.60	--
14:30	7.5	0.250	10.94	0.62	-177	10.97	10.38	--	--	32	34.00	--
14:35	8.8	0.250	10.53	0.68	-182	10.83	10.37	--	--	21	34.35	--
14:40	10.0	0.250	10.27	0.70	-183	10.49	10.3	--	--	35.9	34.40	--
14:45	11.3	0.250	10.17	0.72	-184	10.21	10.31	--	--	25.9	34.40	--
14:50	12.5	0.250	10.23	0.73	-183	9.78	10.26	--	--	21.7	34.40	--
14:55	13.8	0.250	10.34	0.76	-180	9.53	10.16	--	--	17.6	34.40	--
15:00	15.0	0.250	10.36	0.79	-178	9.68	10.06	--	--	15.4	34.40	--
15:05	16.3	0.250	10.38	0.83	-175	9.18	10	--	--	12.5	34.40	--
15:10	17.5	0.250	10.25	0.81	-172	8.94	9.92	--	--	9.45	34.40	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-12I

Well Casing Type:	Schedule-80 PVC	**Start SWL:** 19.3	**Project:** GCL Tie and Treat Superfund Site
Well Depth:**	55	**Water Column Ht.:** 35.70	**Date:** 11/17/2022
Screened Interval (ft):	44.6 - 54.6	**Well Volume (gallons):** 11.65	**Crew:** LJR
Well Elevation:**	995.41	**SWL During Sampling:** 20.72	**Pump Intake (ft)** 49.60
Well Diameter (in.)	4	**Sample Time:** 9:50	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:** Low Flow	**PID Head Space (ppm):** --
Weather Conditions:	OVERCAST, 35°F	**Sample Analyses:** VOCs; SVOCs; 1,4-Dioxin; Metals; Nitrate; Nitrite; Sulfate; Alkalinity; Hardness	**Sample ID:** MW-12I-20221117

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
8:50	--	0.450	10.15	0.63	-8	3.67	6.22	--	--	104	19.30	--
8:55	2.3	0.150	10.26	0.61	-56	1.76	6.39	--	--	36.4	20.55	--
9:00	3.0	0.150	8.87	0.61	-78	1.51	6.45	--	--	21.6	20.60	--
9:05	3.8	0.150	8.30	0.63	-93	1.36	6.47	--	--	7.8	20.70	--
9:10	4.5	0.150	8.25	0.63	-96	1.30	6.48	--	--	4.1	20.85	--
9:15	5.3	0.150	8.10	0.63	-98	1.11	6.47	--	--	0	20.90	--
9:20	6.0	0.150	7.94	0.63	-101	1.14	6.48	--	--	0	20.92	--
9:25	6.8	0.150	7.79	0.63	-105	1.16	6.51	--	--	0	20.80	--
9:30	7.5	0.150	7.73	0.64	-103	1.03	6.49	--	--	0	20.78	--
9:35	8.3	0.150	7.70	0.63	-107	0.93	6.52	--	--	0	20.72	--
9:40	9.0	0.150	7.95	0.63	-107	1.02	6.51	--	--	0	20.70	--
9:45	9.8	0.150	8.10	0.63	-109	1.11	6.52	--	--	0	20.72	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: CREOSOTE ODOR FROM PURGE WATER.SLIGHT SHEEN.

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-12B

Well Casing Type:	Schedule-80 PVC	**Start SWL:**	22.05	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	130	**Water Column Ht.:**	107.95	**Date:**	11/17/2022
Screened Interval (ft):	119.7 - 129.7	**Well Volume (gallons):**	17.62	**Crew:**	LFB
Well Elevation:**	995.55	**SWL During Sampling:**	22.10	**Pump Intake (ft)**	124.70
Well Diameter (in.)	2	**Sample Time:**	10:10	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:	CLOUDY, 30°F	**Sample Analyses:**	VOCs; SVOCs; 1,4-Dioxin; Metals; Nitrate; Nitrite; Sulfate; Alkalinity; Hardness	**Sample ID:**	MW-12B-20221117

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
8:50	--	0.250	9.20	0.64	-1	4.95	5.62	--	--	29.4	22.05	--
8:55	1.3	0.250	9.36	0.63	-49	3.37	6.08	--	--	61.9	22.10	--
9:00	2.5	0.250	9.63	0.67	-93	2.24	6.71	--	--	--	22.10	--
9:05	3.8	0.250	9.65	0.70	-122	1.65	6.98	--	--	--	22.10	--
9:10	5.0	0.250	9.95	0.73	-139	1.43	7.10	--	--	--	22.10	--
9:15	6.3	0.250	9.89	0.75	-149	1.27	7.19	--	--	887	22.10	--
9:20	7.5	0.250	9.97	0.82	-166	1.06	7.33	--	--	237	22.10	--
9:25	8.8	0.250	10.01	0.83	-168	0.87	7.34	--	--	191	22.10	--
9:30	10.0	0.250	10.03	0.84	-170	0.80	7.36	--	--	142	22.10	--
9:35	11.3	0.250	10.02	0.85	-171	0.75	7.37	--	--	118	22.10	--
9:40	12.5	0.250	10.08	0.90	-173	0.68	7.37	--	--	89.9	22.10	--
9:45	13.8	0.250	10.03	0.86	-174	0.63	7.37	--	--	66.6	22.10	--
9:50	15.0	0.250	10.01	0.86	-175	0.59	7.38	--	--	46.8	22.10	--
9:55	16.3	0.250	10.00	0.87	-175	0.69	7.41	--	--	36.7	22.10	--
10:00	17.5	0.250	10.10	0.87	-176	0.59	7.39	--	--	30.3	22.10	--
10:05	18.8	0.250	10.18	0.87	-177	0.53	7.38	--	--	22.3	22.10	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-13I

Well Casing Type:	PVC	**Start SWL:**	32.03	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	135	**Water Column Ht.:**	102.97	**Date:**	11/15/2022
Screened Interval (ft):	125.0 - 135.0	**Well Volume (gallons):**	21.01	**Crew:**	LJR,LFB
Well Elevation:**	1003.92	**SWL During Sampling:**	32.61	**Pump Intake (ft)**	130.00
Well Diameter (in.)	2.5	**Sample Time:**	10:20	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-13I-20221115

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
9:30	--	0.500	11.78	0.59	224	9.04	6.01	--	--	20.4	32.03	--
9:35	2.5	0.500	11.98	0.70	-31	8.53	6.68	--	--	18.8	32.97	--
9:40	5.0	0.400	12.03	0.71	-75	6.98	6.95	--	--	13.6	32.67	--
9:45	7.0	0.400	11.81	0.71	-105	6.10	7.15	--	--	8.46	32.65	--
9:50	9.0	0.400	11.95	0.70	-117	5.54	7.23	--	--	7.7	32.65	--
9:55	11.0	0.400	11.92	0.71	-128	5.02	7.29	--	--	0	32.62	--
10:00	13.0	0.400	11.42	0.69	-138	12.30	8.16	--	--	14.1	32.62	--
10:05	15.0	0.400	11.36	0.69	-139	12.34	8.16	--	--	13.8	32.60	--
10:10	17.0	0.400	11.46	0.69	-140	12.20	8.16	--	--	13.4	32.61	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: DISSOLVED OXYGEN METER MALFUNCTIONING

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-13B

Well Casing Type:	PVC	**Start SWL:**	3.6	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	169	**Water Column Ht.:**	165.40	**Date:**	11/15/2022
Screened Interval (ft):	159.0 - 169.0	**Well Volume (gallons):**	33.74	**Crew:**	LFB,LJR
Well Elevation:**	1003.72	**SWL During Sampling:**	32.30	**Pump Intake (ft)**	164.00
Well Diameter (in.)	2.5	**Sample Time:**	10:35	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	CLOUDY, 30°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-13B-20221115

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
9:30	--	0.300	10.10	0.50	77	3.68	6.4	--	--	8.76	31.60	--
9:35	1.5	0.300	10.10	0.50	52	4.74	6.44	--	--	4.18	32.50	--
9:40	3.0	0.300	9.89	1.12	0	3.42	6.51	--	--	7.64	32.30	--
9:45	4.5	0.300	9.98	1.26	-5	2.56	6.51	--	--	18	32.30	--
9:50	6.0	0.300	10.41	1.32	-16	2.17	6.60	--	--	16.2	32.30	--
9:55	7.5	0.300	10.28	1.33	-21	1.80	6.65	--	--	11.05	32.30	--
10:00	9.0	0.300	10.29	1.37	-25	1.60	6.58	--	--	2.1	32.30	--
10:05	10.5	0.300	10.32	1.39	-27	1.26	6.71	--	--	6.52	32.30	--
10:10	12.0	0.300	10.44	1.41	-28	1.10	6.74	--	--	5.64	32.30	--
10:15	13.5	0.300	10.42	1.41	-28	1.03	6.74	--	--	4.76	32.30	--
10:20	15.0	0.300	10.45	1.41	-28	0.94	6.75	--	--	3.81	32.30	--
10:25	16.5	0.300	10.47	1.34	-28	0.90	6.76	--	--	5.76	32.30	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-17B

Well Casing Type:	Steel	**Start SWL:**	13.83	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	110	**Water Column Ht.:**	96.17	**Date:**	11/17/2022
Screened Interval (ft):	91.5 - 110.0	**Well Volume (gallons):**	31.39	**Crew:**	LJR
Well Elevation:**	995.81	**SWL During Sampling:**	14.30	**Pump Intake (ft)**	--
Well Diameter (in.)	4	**Sample Time:**	12:15	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 30°F	**Sample Analyses:**	VOCs; SVOCs; 1,4-Dioxin; Metals; Nitrate; Nitrite; Sulfate; Alkalinity; Hardness	**Sample ID:**	MW-17B-20221117

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
11:10	--	0.700	10.40	0.30	-193	2.50	9.37	--	--	60.3	13.83	--
11:15	3.5	0.300	10.18	0.43	-219	1.44	9.48	--	--	48.1	14.40	--
11:20	5.0	0.300	10.23	0.50	-212	1.27	9.35	--	--	51.5	14.25	--
11:25	6.5	0.300	10.21	0.88	-211	1.28	8.14	--	--	28.2	14.30	--
11:30	8.0	0.300	10.14	1.00	-187	1.12	7.72	--	--	25.1	14.32	--
11:35	9.5	0.300	10.10	1.08	-170	1.02	7.53	--	--	28.1	14.30	--
11:40	11.0	0.300	10.00	1.11	-161	1.10	7.44	--	--	33.5	14.30	--
11:45	12.5	0.275	10.00	1.14	-143	0.93	7.27	--	--	32.4	14.30	--
11:50	13.9	0.275	9.82	1.15	-118	0.93	7.08	--	--	38	14.30	--
11:55	15.3	0.275	9.98	1.15	-97	0.90	6.95	--	--	39	14.30	--
12:00	16.6	0.275	9.93	1.15	-81	0.88	6.88	--	--	37	14.30	--
12:05	18.0	0.275	9.95	1.16	-66	0.83	6.81	--	--	27	14.30	--
12:10	19.4	0.275	9.99	1.15	-58	0.80	6.78	--	--	24	14.30	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: FIELD DUPLICATE COLLECTED

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-19B

Well Casing Type:	Steel	**Start SWL:**	13.35	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	105	**Water Column Ht.:**	91.65	**Date:**	11/16/2022
Screened Interval (ft):	85.5 - 105.0	**Well Volume (gallons):**	29.91	**Crew:**	LJR
Well Elevation:**	992.82	**SWL During Sampling:**	15.70	**Pump Intake (ft)**	100.00
Well Diameter (in.)	4	**Sample Time:**	16:05	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 35°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-19B-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
14:25	--	0.350	9.87	0.54	23	9.58	6.6	--	--	--	13.35	--
14:30	1.8	0.350	9.97	0.98	-122	1.13	7.07	--	--	--	14.13	--
14:35	3.5	0.350	10.36	1.05	-153	1.19	7.17	--	--	--	14.40	--
14:40	5.3	0.350	9.96	1.07	-160	8.23	7.16	--	--	--	14.45	--
15:05	14.0	0.350	9.94	1.05	-97	9.41	7.15	--	--	--	14.55	PAUSED TO FIX FLOW THRU CELL
15:10	15.8	0.350	10.27	1.02	-134	8.89	7.15	--	--	--	14.70	--
15:15	17.5	0.350	10.08	1.00	-153	4.20	7.18	--	--	951	14.75	--
15:20	19.3	0.350	10.00	0.99	-158	3.82	7.18	--	--	880	14.80	--
15:25	21.0	0.350	10.01	0.98	-163	3.70	7.2	--	--	754	14.70	--
15:30	22.8	0.350	10.46	0.96	-167	2.21	7.2	--	--	645	15.35	--
15:35	24.5	0.350	10.56	0.96	-170	2.11	7.21	--	--	629	15.70	--
15:40	26.3	0.350	10.53	0.93	-171	2.06	7.21	--	--	668	15.80	--
15:45	28.0	0.350	10.44	0.94	-174	1.50	7.23	--	--	641	15.75	--
15:50	29.8	0.350	10.45	0.94	-174	1.14	7.21	--	--	644	15.75	--
15:55	31.5	0.350	10.42	0.93	-175	1.03	7.21	--	--	631	15.75	--
16:00	33.3	0.350	10.45	0.96	-175	0.93	7.2	--	--	117	15.70	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: SWITCHED PUMPS AT 10 MINUTES (14:35)

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-20B

Well Casing Type:	Steel	**Start SWL:**	16.8	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	105	**Water Column Ht.:**	88.20	**Date:**	11/16/2022
Screened Interval (ft):	85.5 - 105.0	**Well Volume (gallons):**	28.79	**Crew:**	LFB
Well Elevation:**	994.06	**SWL During Sampling:**	26.62	**Pump Intake (ft)**	100.00
Well Diameter (in.)	4	**Sample Time:**	15:45	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:		**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-20B-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
14:40	--	0.400	8.90	0.58	33	6.49	8.31	--	--	219	16.80	--
14:45	2.0	0.200	9.43	0.76	-116	1.26	9.42	--	--	193	19.90	--
14:50	3.0	0.200	9.59	0.75	-157	0.77	8.43	--	--	111	21.50	--
14:55	4.0	0.200	9.49	0.75	-169	0.66	8.47	--	--	106	21.90	--
15:00	5.0	0.200	9.28	0.75	-175	0.65	8.48	--	--	103	22.02	--
15:05	6.0	0.200	9.62	0.75	-180	0.51	8.47	--	--	110	22.85	--
15:10	7.0	0.200	9.71	0.74	-194	0.47	8.67	--	--	85.2	23.41	--
15:15	8.0	0.200	9.67	0.72	-208	0.42	8.97	--	--	79.9	24.40	--
15:20	9.0	0.200	9.64	0.71	-229	0.38	9.6	--	--	59.1	25.26	--
15:25	10.0	0.200	9.51	0.70	-232	0.37	9.5	--	--	57.5	26.00	--
15:30	11.0	0.200	9.32	0.70	-228	0.53	9.74	--	--	58	26.30	--
15:35	12.0	0.200	9.01	0.70	-228	0.36	9.74	--	--	57.2	26.55	--
15:40	13.0	0.200	9.21	0.70	-229	0.36	9.78	--	--	57.4	26.62	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-21I

Well Casing Type: Schedule-40 PVC	**Start SWL:** 27.07	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 115	**Water Column Ht.:** 87.93	**Date:** 11/16/2022
Screened Interval (ft): 105.0 - 115.0	**Well Volume (gallons):** 14.35	**Crew:** LJR
Well Elevation:** 998.2	**SWL During Sampling:** 27.51	**Pump Intake (ft)** 110.00
Well Diameter (in.) 2	**Sample Time:** 9:15	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** --
Weather Conditions: DRIZZLE, 35°F	**Sample Analyses:** VOCs; SVOCs	**Sample ID:** MW-21I-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
8:30	--	0.375	11.88	1.42	-70	1.77	6.5	--	--	--	27.07	--
8:35	1.9	0.375	12.10	1.20	-61	1.19	6.42	--	--	--	27.45	--
8:40	3.8	0.375	12.14	1.39	-58	0.99	6.42	--	--	--	27.50	--
8:45	5.6	0.375	12.15	1.40	-54	0.77	6.45	--	--	933	27.50	--
8:50	7.5	0.375	12.12	1.40	-51	0.63	6.47	--	--	65	27.51	--
8:55	9.4	0.375	12.11	1.40	-49	0.56	6.48	--	--	24	27.51	--
9:00	11.3	0.375	12.08	1.40	-48	0.52	6.48	--	--	20	27.51	--
9:05	13.1	0.375	12.10	1.40	-47	0.51	6.48	--	--	16	27.51	--
9:10	15.0	0.375	12.08	1.40	-46	0.49	6.49	--	--	3	27.51	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: MILD SULFUR SMELL IN PURGE WATER

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-21B

Well Casing Type:	Schedule-40 PVC	**Start SWL:**	28	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	147	**Water Column Ht.:**	119.00	**Date:**	11/16/2022
Screened Interval (ft):	137.0 - 147.0	**Well Volume (gallons):**	19.42	**Crew:**	LFB
Well Elevation:**	998.2	**SWL During Sampling:**	28.05	**Pump Intake (ft)**	142.00
Well Diameter (in.)	2	**Sample Time:**	9:30	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 35°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-21B-20221116

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
8:35	--	0.350	10.74	2.06	-22	2.82	6.04	--	--	47	28.00	--
8:40	1.8	0.350	10.23	6.35	-58	2.76	6.31	--	--	1081	28.05	--
8:45	3.5	0.350	10.58	6.84	-73	1.76	6.76	--	--	1506	28.05	--
8:50	5.3	0.350	11.10	5.18	-86	1.14	6.73	--	--	333	28.05	--
8:55	7.0	0.350	11.00	4.08	-99	1.77	6.67	--	--	615	28.05	--
9:00	8.8	0.350	10.98	4.00	-101	1.37	6.67	--	--	99.4	28.05	--
9:05	10.5	0.350	11.25	3.69	-105	0.99	6.68	--	--	62.7	28.05	--
9:10	12.3	0.350	11.37	3.32	-106	1.01	6.67	--	--	64.7	28.05	--
9:15	14.0	0.350	11.44	3.37	-109	0.90	6.69	--	--	61.4	28.05	--
9:20	15.8	0.350	11.41	3.38	-109	0.86	6.7	--	--	59.1	28.05	--
9:25	17.5	0.350	11.42	3.38	-110	0.78	6.72	--	--	54.8	28.05	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-22B

Well Casing Type:	Stainless Steel	**Start SWL:**	17.96	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	127	**Water Column Ht.:**	109.04	**Date:**	1/12/2023
Screened Interval (ft):	122.0 - 132.0	**Well Volume (gallons):**	17.80	**Crew:**	MTP,MTK
Well Elevation:**	NM	**SWL During Sampling:**	17.96	**Pump Intake (ft)**	127.00
Well Diameter (in.)	2	**Sample Time:**	11:30	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 12MPH WIND SOUTH, 36°F	**Sample Analyses:**	VOCs; SVOCs	**Sample ID:**	MW-22B-20230112

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
9:56	--	0.200	7.16	3.14	-70	9.70	12.6	--	--	47.6	17.96	--
10:01	1.0	0.200	6.68	3.59	-173	8.61	12.7	--	--	38.6	17.96	--
10:06	2.0	0.200	6.96	4.10	-221	8.47	12.79	--	--	28.6	17.96	--
10:11	3.0	0.200	7.04	4.58	-251	7.53	12.84	--	--	22	17.96	--
10:16	4.0	0.200	7.43	4.34	-267	6.73	12.79	--	--	23.3	17.96	--
10:21	5.0	0.200	7.47	3.95	-271	6.33	12.75	--	--	21	17.96	--
10:26	6.0	0.200	7.27	3.67	-272	6.13	12.73	--	--	19.1	17.96	--
10:31	7.0	0.200	7.20	3.37	-272	5.98	12.68	--	--	16.4	17.96	--
10:36	8.0	0.200	7.49	2.96	-277	5.04	12.61	--	--	136	17.96	--
10:41	9.0	0.200	8.47	2.46	-283	4.64	12.46	--	--	243	17.96	--
10:46	10.0	0.200	7.60	2.01	-304	4.16	12.29	--	--	112	17.96	--
10:51	11.0	0.200	7.23	1.99	-311	4.02	12.3	--	--	85.9	17.96	--
10:56	12.0	0.200	7.08	1.96	-315	3.88	12.61	--	--	65.3	17.96	--
11:01	13.0	0.200	--	--	--	--	--	--	--	--	17.96	--
11:06	14.0	0.200	9.04	1.33	-176	0.00	7.57	--	--	128	17.96	--
11:11	15.0	0.200	9.07	1.29	-3214	0.00	11.59	--	--	71.4	17.96	--
11:16	16.0	0.200	8.91	1.17	-334	0.00	11.57	--	--	67.9	17.96	--
11:21	17.0	0.2	8.6	1.12	-344	0.00	11.46	--	--	84.2	17.96	--
11:26	18.0	0.2	8.86	1.01	-333	0.00	11.06	--	--	47.2	17.96	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments:

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: EW-1B

Well Casing Type: Steel	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 131	**Water Column Ht.:** --	**Date:** 11/11/2022
Screened Interval (ft): 92.5 - 131.0	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 997.41	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 3	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Could not sample well due to blockage preventing pump from getting to screened interval

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: EW-2B

Well Casing Type: Steel	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 115.5	**Water Column Ht.:** --	**Date:** 11/14/2022
Screened Interval (ft): 92.0 - 115.5	**Well Volume (gallons):** --	**Crew:** MTP,DMS,SW
Well Elevation:** 996.45	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 7	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Could not sample well due to blockage preventing pump from getting to screened interval

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: EW-4B

Well Casing Type: Steel	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 144	**Water Column Ht.:** --	**Date:** 11/10/2022
Screened Interval (ft): 120.5 - 144.0	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 925	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 7	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Could not collect sample, blockages prevented pump from getting to screened interval

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-03S

Well Casing Type: Stainless Steel	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 19.5	**Water Column Ht.:** --	**Date:** 11/11/2022
Screened Interval (ft): 10.3 - 20.3	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 993.08	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 4	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-03B

Well Casing Type: Open Hole	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 131.4	**Water Column Ht.:** --	**Date:** 11/11/2022
Screened Interval (ft): 96.9 - 133.3	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 996.13	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 6	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-07D

Well Casing Type: Stainless Steel	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 132	**Water Column Ht.:** --	**Date:** 11/10/2022
Screened Interval (ft): 124.2 - 134.2	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 999.77	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 4	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-07B

Well Casing Type: Schedule-80 PVC	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 136	**Water Column Ht.:** --	**Date:** 11/10/2022
Screened Interval (ft): 128.0 - 138.0	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 998.22	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 2	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 27.80
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-17S

Well Casing Type: PVC	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 18	**Water Column Ht.:** --	**Date:** 11/11/2022
Screened Interval (ft): 13.0 - 18.0	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 995.68	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 1	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-17I

Well Casing Type: PVC	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 60	**Water Column Ht.:** --	**Date:** 11/11/2022
Screened Interval (ft): 50.0 - 60.0	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 995.62	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 1	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-22I

Well Casing Type:	Stainless Steel	**Start SWL:**	16.19	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	50	**Water Column Ht.:**	33.81	**Date:**	1/12/2023
Screened Interval (ft):	43.0 - 53.0	**Well Volume (gallons):**	5.52	**Crew:**	MTP,MTK
Well Elevation:**	NM	**SWL During Sampling:**	--	**Pump Intake (ft)**	--
Well Diameter (in.)	2	**Sample Time:**	--	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	--
Weather Conditions:	OVERCAST, 12MPH WIND SOUTH, 41°F	**Sample Analyses:**	--	**Sample ID:**	--

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: PZ-02I

Well Casing Type: Schedule-40 PVC	**Start SWL:** --	**Project:** GCL Tie and Treat Superfund Site
Well Depth:** 50	**Water Column Ht.:** --	**Date:** 11/11/2022
Screened Interval (ft): 41.7 - 51.7	**Well Volume (gallons):** --	**Crew:** MTP,DMS,VT
Well Elevation:** 995.34	**SWL During Sampling:** --	**Pump Intake (ft)** --
Well Diameter (in.) 2	**Sample Time:** --	**Meters Used:** Horiba U-52 / LaMotte 2020e
Well Condition: --	**Sample Method:** Low Flow	**PID Head Space (ppm):** 0.00
Weather Conditions:	**Sample Analyses:** --	**Sample ID:** --

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Well not sampled due to product present in well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

Well Sampling Log

Well ID No.: MW-18B

Well Casing Type:	Steel	**Start SWL:**	--	**Project:**	GCL Tie and Treat Superfund Site
Well Depth:**	103.75	**Water Column Ht.:**	--	**Date:**	11/14/2022
Screened Interval (ft):	--	**Well Volume (gallons):**	--	**Crew:**	MTP,DMS,VT
Well Elevation:**	994.87	**SWL During Sampling:**	--	**Pump Intake (ft)**	--
Well Diameter (in.)	4	**Sample Time:**	--	**Meters Used:**	Horiba U-52 / LaMotte 2020e
Well Condition:	--	**Sample Method:**	Low Flow	**PID Head Space (ppm):**	0.00
Weather Conditions:		**Sample Analyses:**	--	**Sample ID:**	--

Time	Estimated Volume Purged (L)	Purge Rate (L/min)	Temp. (°C)	Cond. (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	pH	TDS	Salinity (ppth)	Turbidity (NTU)	Depth to Water (ft)*	Comments
--	--	--	--	--	--	--	--	--	--	--	--	--
Stabilization Criteria			± 3%	± 3%	± 10 mV	± 10%	± 0.1	--	--	± 10% if > 1	--	

Comments: Could not locate well

Notes:

* - Measurement taken from top of well casing

Indicator parameters have stabilized when 3 consecutive readings are with ±0.1 for pH; ±3% for Cond. and Temp.; ±10 MV for ORP; and ±10% for D.O. and Turbidity.

Water quality parameter measurements are by methods: SM2550 B-1 for temperature; SM 2510 B-11 for conductivity; SM 4500-O G-16 for dissolved oxygen; SM 4500-H B-11 for pH; and SM 2130 B-11 for turbidity.

APPENDIX H

Technical Report

prepared for:

ACV Enviro (NY)
11 Access Road
Albany NY, 12205
Attention: Nick Marrone

Report Date: 01/23/2023
Client Project ID: NW101840 IDW-Sidney, NY
York Project (SDG) No.: 23A0668

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 01/23/2023
Client Project ID: NW101840 IDW-Sidney, NY
York Project (SDG) No.: 23A0668

ACV Enviro (NY)
11 Access Road
Albany NY, 12205
Attention: Nick Marrone

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on January 13, 2023 and listed below. The project was identified as your project: **NW101840 IDW-Sidney, NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
23A0668-01	WATER DISPOSAL	Water	01/12/2023	01/13/2023

General Notes for York Project (SDG) No.: 23A0668

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: Cassie L. Mosher **Date:** 01/23/2023

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: WATER DISPOSAL

York Sample ID: 23A0668-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23A0668	NW101840 IDW-Sidney, NY	Water	January 12, 2023 11:05 am	01/13/2023

Volatile Organics, TCLP RCRA List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-35-4	1,1-Dichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
107-06-2	1,2-Dichloroethane	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
78-93-3	**2-Butanone**	**13**		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PA		
71-43-2	Benzene	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
56-23-5	Carbon tetrachloride	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
108-90-7	Chlorobenzene	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
67-66-3	Chloroform	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
127-18-4	Tetrachloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
79-01-6	Trichloroethylene	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
75-01-4	Vinyl Chloride	ND		ug/L	2.5	5.0	1	EPA 8260C/1311	01/17/2023 09:00	01/17/2023 19:30	PD
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*102 %*	*77-125*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*93.0 %*	*76-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.4 %*	*85-120*

Semi-Volatiles, TCLP RCRA Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.33	5.26	1	EPA 8270D/1311	01/16/2023 11:08	01/16/2023 23:20	KH
								Certifications:	NELAC-NY10854,PADEP		
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	2.01	5.26	1	EPA 8270D/1311	01/16/2023 11:08	01/16/2023 23:20	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		

Sample Information

Client Sample ID: WATER DISPOSAL

York Sample ID: 23A0668-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23A0668	NW101840 IDW-Sidney, NY	Water	January 12, 2023 11:05 am	01/13/2023

Semi-Volatiles, TCLP RCRA Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	1.84	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
121-14-2	2,4-Dinitrotoluene	ND		ug/L	1.69	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
95-48-7	2-Methylphenol	ND		ug/L	1.22	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	1.18	10.5	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
1319-77-3	Cresols, total	ND		ug/L	1.22	15.8	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854	01/16/2023 11:08	01/16/2023 23:20	KH
118-74-1	Hexachlorobenzene	ND		ug/L	1.34	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
87-68-3	Hexachlorobutadiene	ND		ug/L	2.94	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
67-72-1	Hexachloroethane	ND		ug/L	3.20	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
98-95-3	Nitrobenzene	ND		ug/L	1.78	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
87-86-5	Pentachlorophenol	ND		ug/L	1.53	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH
110-86-1	Pyridine	ND		ug/L	4.12	5.26	1	EPA 8270D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/16/2023 11:08	01/16/2023 23:20	KH

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*38.1 %*	*10-90.9*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*24.3 %*	*10-69.2*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*77.8 %*	*19.2-141*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*61.0 %*	*24.8-127*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*91.8 %*	*23-163*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*78.5 %*	*25.8-110*

Pesticides, TCLP RCRA List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12789-03-6	Chlordane, total	ND		ug/L	0.222	0.222	1	EPA 8081B/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/18/2023 08:57	01/20/2023 06:16	BJ
72-20-8	Endrin	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	01/18/2023 08:57	01/20/2023 06:16	BJ

Sample Information

Client Sample ID: WATER DISPOSAL

York Sample ID: 23A0668-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23A0668	NW101840 IDW-Sidney, NY	Water	January 12, 2023 11:05 am	01/13/2023

Pesticides, TCLP RCRA List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311	01/18/2023 08:57	01/20/2023 06:16	BJ
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
76-44-8	Heptachlor	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311	01/18/2023 08:57	01/20/2023 06:16	BJ
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
1024-57-3	Heptachlor epoxide	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311	01/18/2023 08:57	01/20/2023 06:16	BJ
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
72-43-5	Methoxychlor	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311	01/18/2023 08:57	01/20/2023 06:16	BJ
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
8001-35-2	Toxaphene	ND		ug/L	1.11	1.11	1	EPA 8081B/1311	01/18/2023 08:57	01/20/2023 06:16	BJ
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*63.6 %*	*30-120*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*51.4 %*	*30-120*

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
11104-28-2	Aroclor 1221	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
11141-16-5	Aroclor 1232	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
53469-21-9	Aroclor 1242	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
12672-29-6	Aroclor 1248	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
11097-69-1	Aroclor 1254	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
11096-82-5	Aroclor 1260	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
1336-36-3	* Total PCBs	ND		ug/L	0.0606	1	EPA 8082A	01/16/2023 07:52	01/17/2023 17:41	BJ
							Certifications:			

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*72.5 %*	*30-120*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*66.5 %*	*30-120*

Sample Information

Client Sample ID: WATER DISPOSAL

York Sample ID: 23A0668-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23A0668	NW101840 IDW-Sidney, NY	Water	January 12, 2023 11:05 am	01/13/2023

Herbicides, TCLP Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 8151A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
93-72-1	2,4,5-TP (Silvex)	ND		ug/L	5.00	1	EPA 8151A/1311	01/18/2023 08:47	01/18/2023 17:41	BJ-
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			
94-75-7	2,4-D	ND		ug/L	5.00	1	EPA 8151A/1311	01/18/2023 08:47	01/18/2023 17:41	BJ-
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			

	Surrogate Recoveries	Result		Acceptance Range
19719-28-9	*Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)*	*1.20 %*	S-08	*30-150*

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.017	1	EPA 6010D/1311	01/20/2023 08:06	01/20/2023 14:43	CW
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			
7440-39-3	**Barium**	**0.226**		mg/L	0.028	1	EPA 6010D/1311	01/20/2023 08:06	01/20/2023 14:43	CW
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			
7440-43-9	Cadmium	ND		mg/L	0.003	1	EPA 6010D/1311	01/20/2023 08:06	01/20/2023 14:43	CW
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			
7440-47-3	Chromium	ND		mg/L	0.006	1	EPA 6010D/1311	01/20/2023 08:06	01/20/2023 14:43	CW
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			
7439-92-1	Lead	ND		mg/L	0.006	1	EPA 6010D/1311	01/20/2023 08:06	01/20/2023 14:43	CW
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			
7782-49-2	Selenium	ND		mg/L	0.028	1	EPA 6010D/1311	01/20/2023 08:06	01/20/2023 14:43	CW
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			
7440-22-4	Silver	ND		mg/L	0.006	1	EPA 6010D/1311	01/20/2023 08:06	01/20/2023 14:43	CW
							Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			

Mercury, TCLP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7470A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.000200	1	EPA 7470/1311	01/17/2023 08:17	01/17/2023 08:17	AD
							Certifications: CTDOH-PH-0723,NJDEP,PADEP,NELAC-NY10854			

Corrosivity (pH) by SM 4500/EPA 9045D

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: WATER DISPOSAL **York Sample ID:** 23A0668-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23A0668	NW101840 IDW-Sidney, NY	Water	January 12, 2023 11:05 am	01/13/2023

Corrosivity (pH) by SM 4500/EPA 9045D

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	*** pH**	**7.51**	HT-pH	pH units	0.500	1	SM 4500 H+B	01/17/2023 14:33	01/17/2023 16:56	SL
							Certifications:			

Reactivity-Cyanide

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Reactivity - Cyanide	ND		mg/L	0.0250	1	EPA SW-846 Ch.7.3.3	01/16/2023 14:37	01/16/2023 18:40	SL
							Certifications:			

Reactivity-Sulfide

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Reactivity - Sulfide	ND		mg/L	15.0	1	EPA SW-846 Ch.7.3.4	01/16/2023 14:40	01/16/2023 18:39	SL
							Certifications:			

Temperature

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	*** Temperature**	**13.1**	HT-pH	°C	1.00	1	EPA 170.1	01/17/2023 14:33	01/17/2023 16:56	SL
							Certifications:			

Flashpoint

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Flashpoint	> 200		°F	50.0	1	EPA 1010A	01/20/2023 14:32	01/21/2023 16:13	AGNR
							Certifications:			

TCLP Extraction for METALS EPA 1311

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	01/16/2023 10:38	01/16/2023 10:51	TAJ
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP		

TCLP Extraction for SVOCS/PEST/HERB

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA SW 846-1311 TCLP extr. for SVOA/PEST/HERBS

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: WATER DISPOSAL

York Sample ID: 23A0668-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
23A0668	NW101840 IDW-Sidney, NY	Water	January 12, 2023 11:05 am	01/13/2023

TCLP Extraction for SVOCS/PEST/HERB

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP extr. for SVOA/PEST/HERBS

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	01/16/2023 10:35	01/16/2023 10:37	TAJ
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP		

TCLP Extraction for VOA by EPA 1311 ZHE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ZHE for VOA

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	01/16/2023 10:32	01/16/2023 10:34	TAJ
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP		

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
23A0668-01	WATER DISPOSAL	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

S-08	The recovery of this surrogate was outside of QC limits.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-BS	The recovery for this element in the batch blank spike recovered slightly outside of control limits
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
HT-pH	HOLDING TIME EXCEEDED. Samples for pH must be measured in the field or within 15 minutes of sample collection.
F-01	> 200
EXT-COMP	Completed

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon current NELAC/TNI Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Field Chain-of-Custody Record

YORK ANALYTICAL LABORATORIES INC

York Analytical Laboratories, Inc. (YORK)'s Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 23A0668

120 Research Drive Stratford, CT 06615 | 132-02 89th Ave Queens, NY 11418 | clientservices@yorklab.com | www.yorklab.com | 800-306-YORK | 800-306-9675

YOUR Information	Report To:	Invoice To:
Company: ACV ENVIRO	Company: SAME	Company: SAME
Address: 560 MEM ROAD MIDDLETOWN, NY 10940	Address:	Address:
Phone: 845-562-8778	Phone:	Phone:
Contact: NICK MARRONE	Contact:	Contact:
E-mail: NMARRONE@ACVENVIRO.COM	E-mail:	E-mail:

YOUR Project Number: NW101840

YOUR Project Name: IDW - SIDNEY, NY

YOUR PO#:

Turn-Around Time

- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day
- Standard (5-7 Day) ✓

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

NICK MARRONE 1/12/23

Samples Collected by: (print AND sign your name)

Matrix Codes

S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil | Other

Samples From

- New York ✓
- New Jersey
- Connecticut
- Pennsylvania
- Other:

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced	NYSDEC EQuIS
NY ASP B Package	Deliverables	NJDEP SRP HazSite
	NJDKQP	Other:

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
WATER DISPOSAL	WATER	1/11/23 - 1105	FULL TCLP LIST, TOTAL PCBs REACTIVITY, IGNITABILITY, CORROSIVITY	7 - 1 LITER AMBERS 3 - 40 ML VOAs 1 - 500 ML PL.

Comments:

Preservation: (check all that apply)

HCl ✓ MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___
ZnAc ___ Ascorbic Acid ___ Other: AS IS.

Special Instruction

- Field Filtered
- Lab to Filter

Samples iced/chilled at time of lab pickup? circle Yes or No

Samples Relinquished by / Company	Date/Time	1. Samples Received by / Company	Date/Time	2. Samples Relinquished by / Company	Date/Time
ACV	12/13/23	Chris York	1-13-23 10:52	Chris York	1-13-23 1450
Samples Received by / Company	Date/Time	3. Samples Relinquished by / Company	Date/Time	4. Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	4. Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time / Temperature
				Tommy	1/13/23 1450 6.0 Degrees C

Technical Report

prepared for:

ACV Enviro (NY)
11 Access Road
Albany NY, 12205
Attention: Nick Marrone

Report Date: 12/01/2022
Client Project ID: NW101840 IDW- Sidney, NY
York Project (SDG) No.: 22K0942

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 12/01/2022
Client Project ID: NW101840 IDW- Sidney, NY
York Project (SDG) No.: 22K0942

ACV Enviro (NY)
11 Access Road
Albany NY, 12205
Attention: Nick Marrone

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on November 16, 2022 and listed below. The project was identified as your project: **NW101840 IDW- Sidney, NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
22K0942-01	SOIL DISPOSAL	Soil	11/15/2022	11/16/2022

General Notes for York Project (SDG) No.: 22K0942

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: Cassie L. Mosher **Date:** 12/01/2022

Cassie L. Mosher
Laboratory Manager

Sample Information

Client Sample ID: SOIL DISPOSAL

York Sample ID: 22K0942-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
22K0942	NW101840 IDW- Sidney, NY	Soil	November 15, 2022 12:30 pm	11/16/2022

Volatile Organics, TCLP RCRA List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-35-4	1,1-Dichloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
107-06-2	1,2-Dichloroethane	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
106-46-7	1,4-Dichlorobenzene	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
78-93-3	2-Butanone	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
71-43-2	Benzene	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
56-23-5	Carbon tetrachloride	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
108-90-7	Chlorobenzene	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
67-66-3	Chloroform	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
127-18-4	Tetrachloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
79-01-6	Trichloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
75-01-4	Vinyl Chloride	ND		ug/L	25	50	10	EPA 8260C/1311	11/29/2022 12:30	11/29/2022 22:02	FTR
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*96.7 %*	*77-125*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*96.2 %*	*76-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*93.1 %*	*85-120*

Semi-Volatiles, TCLP RCRA Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	6.45	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications: NELAC-NY10854,PADEP			
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	7.22	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP			

Sample Information

Client Sample ID: SOIL DISPOSAL **York Sample ID:** 22K0942-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
22K0942	NW101840 IDW- Sidney, NY	Soil	November 15, 2022 12:30 pm	11/16/2022

Semi-Volatiles, TCLP RCRA Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	6.54	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
121-14-2	2,4-Dinitrotoluene	ND		ug/L	4.73	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
95-48-7	2-Methylphenol	ND		ug/L	1.71	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
65794-96-9	3- & 4-Methylphenols	ND		ug/L	7.43	20.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
1319-77-3	Cresols, total	ND		ug/L	7.40	30.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854		
118-74-1	Hexachlorobenzene	ND		ug/L	5.91	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
87-68-3	Hexachlorobutadiene	ND		ug/L	6.62	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
67-72-1	Hexachloroethane	ND		ug/L	7.26	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
98-95-3	Nitrobenzene	ND		ug/L	3.93	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
87-86-5	Pentachlorophenol	ND		ug/L	7.53	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
110-86-1	Pyridine	ND		ug/L	6.37	10.0	1	EPA 8270D/1311	11/26/2022 08:45	11/27/2022 23:01	KH
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*49.7 %*	*10-90.9*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*30.9 %*	*10-69.2*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*77.0 %*	*19.2-141*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*67.0 %*	*24.8-127*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*93.3 %*	*23-163*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*74.4 %*	*25.8-110*

Pesticides, TCLP RCRA List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12789-03-6	Chlordane, total	ND		ug/L	0.242	0.242	1	EPA 8081B/1311	11/28/2022 08:27	11/30/2022 05:47	BJ
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		
72-20-8	Endrin	ND		ug/L	0.0485	0.0485	1	EPA 8081B/1311	11/28/2022 08:27	11/30/2022 05:47	BJ
								Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		

Sample Information

Client Sample ID: SOIL DISPOSAL

York Sample ID: 22K0942-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
22K0942	NW101840 IDW- Sidney, NY	Soil	November 15, 2022 12:30 pm	11/16/2022

Pesticides, TCLP RCRA List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.0485	0.0485	1	EPA 8081B/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/28/2022 08:27	11/30/2022 05:47	BJ
76-44-8	Heptachlor	ND		ug/L	0.0485	0.0485	1	EPA 8081B/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/28/2022 08:27	11/30/2022 05:47	BJ
1024-57-3	Heptachlor epoxide	ND		ug/L	0.0485	0.0485	1	EPA 8081B/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/28/2022 08:27	11/30/2022 05:47	BJ
72-43-5	Methoxychlor	ND		ug/L	0.0485	0.0485	1	EPA 8081B/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/28/2022 08:27	11/30/2022 05:47	BJ
8001-35-2	Toxaphene	ND		ug/L	1.21	1.21	1	EPA 8081B/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/28/2022 08:27	11/30/2022 05:47	BJ

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*68.5 %*	*30-120*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*50.9 %*	*30-120*

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	11/23/2022 17:42	11/30/2022 11:07	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	11/23/2022 17:42	11/30/2022 11:07	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	11/23/2022 17:42	11/30/2022 11:07	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	11/23/2022 17:42	11/30/2022 11:07	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	11/23/2022 17:42	11/30/2022 11:07	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	11/23/2022 17:42	11/30/2022 11:07	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	11/23/2022 17:42	11/30/2022 11:07	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0184	1	EPA 8082A Certifications:	11/23/2022 17:42	11/30/2022 11:07	BJ

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*104 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*88.0 %*	*30-140*

Sample Information

Client Sample ID: SOIL DISPOSAL **York Sample ID:** 22K0942-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
22K0942	NW101840 IDW- Sidney, NY	Soil	November 15, 2022 12:30 pm	11/16/2022

Herbicides, TCLP Target List

Log-in Notes:

Sample Notes: HT-01

Sample Prepared by Method: EPA 3535A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
93-72-1	2,4,5-TP (Silvex)	ND		ug/L	5.00	1	EPA 8151A/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP	11/30/2022 11:27	12/01/2022 16:32	BJ-
94-75-7	2,4-D	ND		ug/L	5.00	1	EPA 8151A/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP	11/30/2022 11:27	12/01/2022 16:32	BJ-

	Surrogate Recoveries	Result	Acceptance Range
19719-28-9	*Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)*	*36.4 %*	*10-150*

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.375	1	EPA 6010D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/22/2022 15:54	11/27/2022 13:45	AJL
7440-39-3	Barium	ND		mg/L	0.625	1	EPA 6010D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/22/2022 15:54	11/27/2022 13:45	AJL
7440-43-9	Cadmium	ND		mg/L	0.075	1	EPA 6010D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/22/2022 15:54	11/27/2022 13:45	AJL
7440-47-3	Chromium	ND		mg/L	0.125	1	EPA 6010D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/22/2022 15:54	11/27/2022 13:45	AJL
7439-92-1	Lead	ND		mg/L	0.125	1	EPA 6010D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/22/2022 15:54	11/27/2022 13:45	AJL
7782-49-2	Selenium	ND		mg/L	0.625	1	EPA 6010D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/22/2022 15:54	11/27/2022 13:45	AJL
7440-22-4	Silver	ND		mg/L	0.125	1	EPA 6010D/1311 Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	11/22/2022 15:54	11/27/2022 13:45	AJL

Mercury, TCLP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7470A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.000200	1	EPA 7470/1311 Certifications: CTDOH-PH-0723,NJDEP,PADEP,NELAC-NY10854	11/22/2022 18:34	11/22/2022 18:34	AA

Corrosivity (pH) by SM 4500/EPA 9045D

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: SOIL DISPOSAL **York Sample ID:** 22K0942-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
22K0942	NW101840 IDW- Sidney, NY	Soil	November 15, 2022 12:30 pm	11/16/2022

Corrosivity (pH) by SM 4500/EPA 9045D

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	pH	**6.48**		pH units	0.500	1	EPA 9045D	11/18/2022 09:49	11/18/2022 13:43	JAMT
							Certifications: NELAC-NY10854,CTDOH-PH-0723,PADEP			

Reactivity-Cyanide

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Reactivity - Cyanide	ND		mg/kg	0.250	1	EPA SW-846 Ch.7.3.3	11/18/2022 16:42	11/18/2022 21:16	NJO
							Certifications: CTDOH-PH-0723,PADEP			

Reactivity-Sulfide

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Reactivity - Sulfide	ND		mg/kg	15.0	1	EPA SW-846 Ch.7.3.4	11/18/2022 16:46	11/18/2022 21:26	NJO
							Certifications: CTDOH-PH-0723,PADEP			

Temperature

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	*** Temperature**	**22.4**		°C	1.00	1	EPA 170.1	11/18/2022 09:49	11/18/2022 13:43	JAMT
							Certifications:			

Ignitability

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Ignitability	Non-Ignit.		None	1	1	EPA 1030P	11/22/2022 12:01	11/22/2022 16:39	JAMT
							Certifications:			

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**90.1**		%	0.100	1	SM 2540G	11/25/2022 08:27	11/25/2022 11:49	VR
							Certifications: CTDOH-PH-0723			

TCLP Extraction for METALS EPA 1311

Log-in Notes: **Sample Notes:** **EXT-Temp**

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: SOIL DISPOSAL **York Sample ID:** 22K0942-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
22K0942	NW101840 IDW- Sidney, NY	Soil	November 15, 2022 12:30 pm	11/16/2022

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	11/21/2022 18:08	11/22/2022 13:48	TAJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		

TCLP Extraction for SVOCS/PEST/HERB

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP extr. for SVOA/PEST/HERBS

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	11/21/2022 18:03	11/30/2022 10:59	TAJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	11/21/2022 18:03	11/22/2022 13:48	TAJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		

TCLP Extraction for VOA by EPA 1311 ZHE

Log-in Notes:

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ZHE for VOA

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	11/27/2022 13:27	11/28/2022 11:23	TAJ
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
22K0942-01	SOIL DISPOSAL	40mL 01_Clear Vial Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

QR-04	The RPD exceeded control limits for the LCS/LCSD QC.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-BS	The recovery for this element in the batch blank spike recovered slightly outside of control limits
IGN-01	Non-Ignit.
HT-01	This result was reported from an analysis conducted outside of the EPA recommended holding time.
EXT-Temp	Extraction temperture slightly exceeded acceptance range.
EXT-COMP	Completed

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon current NELAC/TNI Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Field Chain-of-Custody Record

YORK ANALYTICAL LABORATORIES INC

York Analytical Laboratories, Inc. (YORK)'s Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 22K0942

120 Research Drive Stratford, CT 06615 | 132-02 89th Ave Queens, NY 11418 | clientservices@yorklab.com | www.yorklab.com | 800-306-YORK | 800-306-9675 | Page _____ of _____

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: ACV ENVIRO	Company: SAME	Company: SAME	NW101840	RUSH - Next Day
Address: 560 M&M ROAD MIDDLETOWN, NY	Address:	Address:	YOUR Project Name: IDW - SIDNEY, NY	RUSH - Two Day
Phone: 845-562-8778	Phone:	Phone:		RUSH - Three Day
Contact: NICK MARRONE	Contact:	Contact:		RUSH - Four Day
E-mail: NMARRONE@ACVENVIRO.COM	E-mail: ✓	E-mail: ✓	YOUR PO#: 51467	Standard (5-7 Day) ✓

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Samples Collected by: (print AND sign your name) 11/15/22

Matrix Codes: S - soil / solid; GW - groundwater; DW - drinking water; WW - wastewater; O - Oil | Other

Samples From: New York ✓; New Jersey; Connecticut; Pennsylvania; Other:

Report / EDD Type (circle selections): Summary Report; QA Report; NY ASP A Package; NY ASP B Package; CT RCP; CT RCP DQA/DUE; NJDEP Reduced Deliverables; NJDKQP; Standard Excel EDD; EQuIS (Standard); NYSDEC EQuIS; NJDEP SRP HazSite; Other:

YORK Reg. Comp.: Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
SOIL DISPOSAL	SOIL	11/15/22 1230	FULL TCLP LIST, TOTAL PCBS ✓REACTIVITY, IGNITABILITY, CORROSIVITY	3-4oz & 3-8oz JARS

Comments:

Samples iced/chilled at time of lab pickup? circle Yes or No

Preservation: (check all that apply) HCl ___ MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___ ZnAc ___ Ascorbic Acid ___ Other: ___

Special Instruction: Field Filtered; Lab to Filter

1. Samples Relinquished by / Company	Date/Time	1. Samples Received by / Company	Date/Time	2. Samples Relinquished by / Company	Date/Time
ACV	11/16/22		11/16/22 1023		11/16/22 1831
2. Samples Received by / Company	Date/Time	3. Samples Relinquished by / Company	Date/Time	3. Samples Received by / Company	Date/Time
KBlackman FOR Marvin Williams	11/16/22 1831	KBlackman FOR Marvin Williams	11/16/22 2032		
3. Samples Relinquished by / Company	Date/Time	4. Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time / Temperature
				KBlackman	11/16/22 2032 / 2.4 Degrees C

APPENDIX I

Straight Bill of Lading

D156510

Please type or print

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 161388

5. Generator Name and Mailing Address

U.S. EPA REGION 2
290 BROADWAY
NEW YORK, NY 10007

Generator Phone: 845-516-1600

Generator's Site Address (if different)

GCL TIE & TREATMENT SITE
141 DELAWARE AVENUE
SIDNEY, NY 13838

ACV Job Number: NW101840

6. Transporter 1 Company Name

ACV ENVIRONMENTAL SERVICES, INC.

US EPA ID Number (if applicable): NJD003812047

7. Transporter 2 Company Name

US EPA ID Number (if applicable):

8. Designated Facility Name and Mailing Address

CYCLE CHEM, INC.
217 SOUTH FIRST STREET
ELIZABETH, NJ 07206

8. Designated Facility Phone: 908-355-5800

US EPA ID Number (if applicable): NJD002200046

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA REGULATED SOLID (IDW SOIL)	X11	DM	38000	P	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

Profile # 238164
Order # NW101840

Truck # RT0096
Plate # X66E36 NJ
DECAL 008873

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name: Matthew Keavney as agent of USEPA | Signature | Month 5 | Day 25 | Year 23

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: LARRY A THOMAS | Signature | Month 5 | Day 25 | Year 23

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19

Printed/Typed Name: J Caruano | Signature | Month 5 | Day 25 | Year 23

Generator | Transporter | Facility

Revised January 2018

Straight Bill of Lading

Please type or print

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 131232

Generator

5. Generator Name and Mailing Address
US EPA REGION 3
290 BROADWAY
NEW YORK, NY 10007
Generator Phone: 212-637-4263

Generator's Site Address (if different)
GCL TIE AND TREATMENT
141 DELAWARE AVENUE
SIDNEY, NY 13838
ACV Job Number: NW101840

6. Transporter 1 Company Name
ACV ENVIRONMENTAL SERVICES, INC.
US EPA ID Number (if applicable)
NJD003812047

7. Transporter 2 Company Name
US EPA ID Number (if applicable)

8. Designated Facility Name and Mailing Address
CYCLE CHEM, INC.
217 SOUTH FIRST STREET
ELIZABETH, NJ 07206
908-355-5800
8. Designated Facility Phone:
US EPA ID Number (if applicable)
NJD002200046

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA REGULATED LIQUID (IDW WATER)	X X 1	TT	X 1 4 6 2	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Profile # 224056
Order # NW101840
CENJ#
Truck # LV3216
Plate # AW164N
Decal # 009050

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name: Matthew T Kearney as agent of US EPA
Signature:
Month: 5 Day: 22 Year: 23

Transporter

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: STEVEN MOSS
Signature:
Month: 5 Day: 22 Year: 23

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

Facility

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19
Printed/Typed Name
Signature
Month Day Year

Straight Bill of Lading

Please type or print

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 131230

Generator

5. Generator Name and Mailing Address
US EPA REGION 3
290 BROADWAY
NEW YORK, NY 10007
Generator Phone: 212-637-4263

Generator's Site Address (if different)
GCL TIE AND TREATMENT
141 DELAWARE AVENUE
SIDNEY, NY 13838
ACV Job Number: NW101840

6. Transporter 1 Company Name
ACV ENVIRONMENTAL SERVICES, INC.
US EPA ID Number (if applicable)
NJD003812047

7. Transporter 2 Company Name
US EPA ID Number (if applicable)

8. Designated Facility Name and Mailing Address
CYCLE CHEM, INC.
217 SOUTH FIRST STREET
ELIZABETH, NJ 07206
8. Designated Facility Phone: 908-355-5800
US EPA ID Number (if applicable)
NJD002200046

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA REGULATED LIQUID (IDW WATER)	X1X1	TT	X30553	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Profile # 224056
Order # NW101840
CENJ#
Truck # UV3216
Plate # AW164M
Decal # 009050

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name: Matthew Pagliaro on behalf of USEPA Reg 2 | Signature | Month Day Year: 5 16 23

Transporter

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Jose Martinez | Signature | Month Day Year: 5 16 23

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

Facility

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19
Printed/Typed Name | Signature | Month Day Year

Straight Bill of Lading

Please type or print

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 131231

Generator

5. Generator Name and Mailing Address
US EPA REGION 3
290 BROADWAY
NEW YORK, NY 10007
Generator Phone: 212-637-4263

Generator's Site Address (if different)
GCL TIE AND TREATMENT
141 DELAWARE AVENUE
SIDNEY, NY 13838
ACV Job Number: NW101840

6. Transporter 1 Company Name
ACV ENVIRONMENTAL SERVICES, INC.
US EPA ID Number (if applicable)
NJD003812047

7. Transporter 2 Company Name
US EPA ID Number (if applicable)

8. Designated Facility Name and Mailing Address
CYCLE CHEM, INC.
217 SOUTH FIRST STREET
ELIZABETH, NJ 07206
8. Designated Facility Phone: 908-355-5800
US EPA ID Number (if applicable)
NJD002200046

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA REGULATED LIQUID (IDW WATER)	X X 1	TT	X 4 9 3 0	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

Profile # 224056
Order # NW101840
CENJ#

Truck # TRUCK - ~~A~~ mm TL8148 ~~TL8148~~ mm
Plate # A41256 TL8148
Decal # 022853

Transporter

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name: Matthew R. Popek on behalf of USEPA Reg 2 | Signature | Month 05 | Day 18 | Year 23

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: MICHAEL MURPHY | Signature | Month 05 | Day 18 | Year 23

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

Facility

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19

Printed/Typed Name | Signature | Month | Day | Year

Straight Bill of Lading

Please type or print

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 161385

5. Generator Name and Mailing Address	Generator's Site Address (if different)
US EPA REGION 3 290 BROADWAY NEW YORK, NY 10007	GCL TIE AND TREATMENT 141 DELAWARE AVENUE SIDNEY, NY 13838
Generator Phone:	ACV Job Number:

6. Transporter 1 Company Name	US EPA ID Number (if applicable)
ACV ENVIRONMENTAL SERVICES, INC.	NJD003812047
7. Transporter 2 Company Name	US EPA ID Number (if applicable)

8. Designated Facility Name and Mailing Address	US EPA ID Number (if applicable)
SIMS METAL 820 ROUTE 211 EAST MIDDLETOWN, NY 10941	
8. Designated Facility Phone: 845-703-4055	

Generator

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA - EMPTY DRUMS	X15	DM	X12510	P	
	2.					
	3					
	4					

14. Special Handling Instructions and Additional Information

Profile # NA
Order # NW101640
CENJ#

Truck #
Plate #
Decal #

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]			

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Blaze Vanderwerker	[signature]	5	22	23

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19

Printed/Typed Name	Signature	Month	Day	Year

Straight Bill of Lading

D 14428

Please type or print

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 130984

Generator

5. Generator Name and Mailing Address
U.S. EPA REGION 2
290 BROADWAY
NEW YORK, NY 10007
Generator Phone: 845-516-1600

Generator's Site Address (if different)
GOLDIE & TREATMENT SITE
141 DELAWARE AVENUE
SIDNEY, NY 13838
ACV Job Number: NW101840

6. Transporter 1 Company Name: ACV ENVIRONMENTAL SERVICES, INC.
US EPA ID Number (if applicable): NJD003812047

7. Transporter 2 Company Name: ACV Environmental Services, Inc
US EPA ID Number (if applicable): NJD003812047

8. Designated Facility Name and Mailing Address
CYCLE CHEM, INC.
217 SOUTH FIRST STREET
ELIZABETH, NJ 07206
8. Designated Facility Phone: 908-355-5800
US EPA ID Number (if applicable): NJD002200046

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA REGULATED SOLID (DW SOIL)	X1	CM	EST X1X1X20	T	
	2.	1	UNT	23240		
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Profile # 220884
Order # NW101840
CENJ#
Truck # 120074
Plate # AV 6051
Decal # 24708
Container # 20-018

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name	Signature	Month	Day	Year
Matthew Pollard HDR 036 SV on behalf of USEPA	HDR 036 SV on behalf of USEPA	1	18	23

Transporter

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Randall Hughey		12	23	22

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Greg Leichtfeld		1	18	23

Facility

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19

Printed/Typed Name	Signature	Month	Day	Year
Conaway	Conaway	1	18	23

AMERICAN ALLOYS
AND RECYCLING, INC.

INDUSTRIAL SCRAP EXPERTS • CONTAINER SERVICE • WASTE DISPOSAL

Scale Ticket

Customer: ACV

Driver: Greg Leichfield

Truck #: 17007

Plate #: AC 605C

Box #: 20-0018

Product:

Destination:

Weight Master:

GROSS 58900 lb
TARE 140 lb
NET 58760 lb

01:14PM 01/18/2023

3604 empty

200 South First Street Elizabeth, New Jersey 07206 Phone: 908-289-1005 Fax: 908-289-3470

CONTAINER INSPECTION SHEET

Generator:	Bill-To		
GCL TIE AND TREATING SITE - 54665	ACV SC17 NEW WINDSOR	Load #:	
141 DELAWARE AVENUE	560 M&M ROAD	Manifest #:	ACV131231
SIDNEY, NY 13838	MIDDLETOWN, NY 10940	Sale Order #:	157081
CSR:	Transporter: ACV ENVIRONMENTAL SERVIC	Received:	05/18/2023

Documents: D155969

Generator Handling Notes:

Bill To Handling Notes:

Document: D155969 **Line:** 1 **Profile:** 224056 **Desc:** INVESTIGATION DERIVED WASTE (IDW) WATER

OB TSDF: LORCO PETROLEUM SERVICES **Volume:** 3053

OB Profile: NJOUT1734 **Product:** LS **Weight:** 25477.29

ROW: LS

Profile Handling Instructions:

Waste Codes: 72

Soil	0 - 1	%
Water	99 - 100	%

Container No	Type - Size
D155969 - 1	TT - 5000

49309

Please type or print

Straight Bill of Lading

~~D156165~~ D155969

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 131231

Generator

5. Generator Name and Mailing Address
US EPA REGION 3
290 BROADWAY
NEW YORK, NY 10007
Generator Phone: 212-637-4263

Generator's Site Address (if different)
GCL TIE AND TREATMENT
141 DELAWARE AVENUE
SIDNEY, NY 13838
ACV Job Number: NW101840

6. Transporter 1 Company Name
ACV ENVIRONMENTAL SERVICES, INC.
US EPA ID Number (if applicable)
NJD003812047

7. Transporter 2 Company Name
US EPA ID Number (if applicable)

8. Designated Facility Name and Mailing Address
CYCLE CHEM, INC.
217 SOUTH FIRST STREET
ELIZABETH, NJ 07206
8. Designated Facility Phone: 908-355-5800
US EPA ID Number (if applicable)
NJD002200046

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA REGULATED LIQUID (IDW WATER)	XX1	TT	X4930	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

Profile # 224056
Order # NW101840
CENJ#

Truck # TRUCK - ~~A~~ TL8148 ~~TL882~~
Plate # A4125G TL882
Decal # 022621 022853

Transporter

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name: Matthew R. Popek on behalf of USEPA Region 2
Signature:
Month: 05 Day: 18 Year: 23

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: MICHAEL MURPHY
Signature:
Month: 05 Day: 18 Year: 23

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name:
Signature:
Month: Day: Year:

Facility

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19
Printed/Typed Name: R Gibson
Signature: R Gibson
Month: 05 Day: 18 Year: 23

METTLER TOLEDO

CERTIFIED SCALES

May/18/2023 13:47:59
TICKET 73373

NEW JERSEY TRUCK STOP
1 HACKENSACK AVE
SOUTH KEARNY N.J. 07032

AXLE 1:	9080
AXLE 2:	35640
AXLE 3:	33780
TOTAL:	78500

WEIGH FEE: $ 12.00

Company: ACV

Tractor# 0212 Trailer# 8148

Full Weight
Ticket #

Imprint
SEAL
Here

AUTHORIZED SIGNATURE
OR
WEIGHT MASTER

CONTAINER INSPECTION SHEET

Generator:	Bill-To		
GCL TIE AND TREATING SITE - 54665	ACV SC17 NEW WINDSOR	Load #:	
141 DELAWARE AVENUE	560 M&M ROAD	Manifest #:	ACV131230
SIDNEY, NY 13838	MIDDLETOWN, NY 10940	Sale Order #:	157265
CSR:	Transporter: ACV ENVIRONMENTAL SERVIC	Received:	05/18/2023

Documents: D156165

Generator Handling Notes:

Bill To Handling Notes:

Document: D156165 **Line:** 1 **Profile:** 224056 **Desc:** INVESTIGATION DERIVED WASTE (IDW) WATER

OB TSDF: LORCO PETROLEUM SERVICES **Volume:** 4930

OB Profile: NJOUT1734 **Product:** LS **Weight:** 41140.85

ROW: LS

Profile Handling Instructions:

Waste Codes: 72

Soil	0 - 1	%
Water	99 - 100	%

Container No	Type - Size
D156165 - 1	TT - 5000

3055

LV3216

Straight Bill of Lading

D166165

Please type or print

ACV ENVIRO

1. Generator EPA ID # (if applicable)	2. Page 1 of	3. Emergency Response #	4. Document Tracking Number
NYD981566417	1	800-777-4557	ACV 131230

Generator

5. Generator Name and Mailing Address
US EPA REGION 3
290 BROADWAY
NEW YORK, NY 10007
Generator Phone: 212-637-4263

Generator's Site Address (if different)
GCL TIE AND TREATMENT
141 DELAWARE AVENUE
SIDNEY, NY 13838
ACV Job Number: NW101840

6. Transporter 1 Company Name: ACV ENVIRONMENTAL SERVICES, INC.
US EPA ID Number (if applicable): NJD003812047

7. Transporter 2 Company Name
US EPA ID Number (if applicable)

8. Designated Facility Name and Mailing Address
CYCLE CHEM, INC.
217 SOUTH FIRST STREET
ELIZABETH, NJ 07206
8. Designated Facility Phone: 908-355-5800
US EPA ID Number (if applicable): NJD002200046

9a. HM	9b. Material Description (Proper shipping name required if DOT Hazardous Material)	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit (Wt/Vol)	13. Waste Codes
	1. NON-DOT, NON-RCRA REGULATED LIQUID (IDW WATER)	X X 1	TT	X 3 0 5 3	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

Profile # 224056
Order # NW101840
CENJ#

Truck # LV 3216
Plate # AW 164M
Decal # 009050

Transporter

16. Generator/Offeror's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labeled/placarded and are in all respects proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name: Matthew T. Pajak on behalf of USEPA Reg 2 | Signature | Month 5 | Day 16 | Year 23

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: JOSE Martinez | Signature | Month 5 | Day 16 | Year 23

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

Facility

19. Discrepancy Indication Space (to be completed by Designated Facility)

20. Discrepancy Facility: Certification of receipt of the materials covered by this shipping paper except as noted in item 19
Printed/Typed Name: Morrison | Signature | Month 05 | Day 16 | Year 23

AMERICAN ALLOYS
AND RECYCLING, INC.

INDUSTRIAL SCRAP EXPERTS • CONTAINER SERVICE • WASTE DISPOSAL

Scale Ticket

Customer: ACV JC17

Driver: Jose Martinez

Truck #: IV-3216

Plate #: DW 164IK

Box #:

Product: liquid

Destination:

Weight Master:

GROSS	53880 lb
TARE	00 lb
NET	53880 lb

01:32PM 05/18/2023

200 South First Street Elizabeth, New Jersey 07206 Phone: 908-289-1005 Fax: 908-289-3470

APPENDIX J

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-02		SB-BR-02		SB-B
			Sample:	SB-BR-01-09-10		SB-BR-01-19-20		SB-BR-01-19-20-1		SB-BR-01-29-30		SB-BR-01-39-40		SB-BR-01-50-51		SB-BR-01-53-54		SB-BR-01-60-61		SB-BR-01-67-68		SB-BR-02-07-08		SB-BR-02-13-14		SB-BR-0	
			Start Depth (ft):	9		19		19		29		39		50		53		60		67		7		13		1	
			End Depth (ft):	10		20		20		30		40		51		54		61		68		8		14		1	
			Sample Date:	10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/11/2022		10/11/2022		10/11	
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,1,2-Trichloroethane	79-00-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,1-Dichloroethane	75-34-3	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,1-Dichloroethene	75-35-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,2,3-Trichlorobenzene	87-61-6	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
1,2,3-Trichloropropane	96-18-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
1,2,4-Trichlorobenzene	120-82-1	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
1,2,4-Trimethylbenzene	95-63-6	mg/kg	*0.0056*	*U*	0.021		0.017		*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	8.2		8.7		0.04
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
1,2-Dibromoethane	106-93-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,2-Dichlorobenzene	95-50-1	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
1,2-Dichloroethane	107-06-2	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,2-Dichloropropane	78-87-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	*0.0056*	*U*	0.014		0.011		*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	3.4		3.6		0.024
1,3-Dichlorobenzene	541-73-1	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
1,4-Dichlorobenzene	106-46-7	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
2-Butanone	78-93-3	mg/kg	0.006	J	0.008	J	0.011	J	*0.011*	*U*	*0.0096*	*U*	*0.01*	*U*	*0.011*	*U*	*0.0097*	*U*	*0.0076*	*U*	*0.012*	*U*	*1.4*	*U*	*0.0097*
2-Hexanone	591-78-6	mg/kg	*0.011*	*U*	*0.011*	*U*	*0.012*	*U*	*0.011*	*U*	*0.0096*	*U*	*0.01*	*U*	*0.011*	*U*	*0.0097*	*U*	*0.0076*	*U*	*0.012*	*U*	*1.4*	*U*	*0.0097*
4-Methyl-2-Pentanone	108-10-1	mg/kg	*0.011*	*U*	*0.011*	*U*	*0.012*	*U*	*0.011*	*U*	*0.0096*	*U*	*0.01*	*U*	*0.011*	*U*	*0.0097*	*U*	*0.0076*	*U*	*0.012*	*U*	*1.4*	*U*	*0.0097*
Acetone	67-64-1	mg/kg	0.03		0.034		0.036		*0.011*	*U*	0.024		0.008	J	0.016		0.013		0.0057	J	0.03		0.018	J+	0.0076
Benzene	71-43-2	mg/kg	0.0011	J	0.0016	J	0.0015	J	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	0.019	J+	0.032	J+	*0.0049*
Bromochloromethane	74-97-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Bromodichloromethane	75-27-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Bromoform	75-25-2	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
Bromomethane	74-83-9	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	0.0093	J+	*0.0049*
Carbon Disulfide	75-15-0	mg/kg	*0.0056*	*U*	0.0023	J	0.0016	J	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Carbon Tetrachloride	56-23-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Chlorobenzene	108-90-7	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	0.0016	J-	*0.71*	*U*	*0.0049*
Chloroethane	75-00-3	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Chloroform	67-66-3	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Chloromethane	74-87-3	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
cis-1,2-Dichloroethene	156-59-2	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
cis-1,3-Dichloropropene	10061-01-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Cyclohexane	110-82-7	mg/kg	*0.0056*	*U*	0.0016	J	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	0.0086	J+	*0.71*	*U*	*0.0049*
Dibromochloromethane	124-48-1	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Dichlorodifluoromethane	75-71-8	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Ethylbenzene	100-41-4	mg/kg	*0.0056*	*U*	0.002	J	0.0021	J	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	1.8		1.6		0.0028
Isopropylbenzene	98-82-8	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.33*	*U*	*0.71*	*U*	*0.0049*
M, P Xylenes	179601-23-1	mg/kg	*0.0056*	*U*	0.0039	J	0.0039	J	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	6.7		6.8		0.0053
Methyl Acetate	79-20-9	mg/kg	*0.0056*	*U*	0.0047	J	0.0035	J	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Methyl tert-Butyl Ether	1634-04-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Methylcyclohexane	108-87-2	mg/kg	*0.0056*	*U*	0.0027	J	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	0.0055	J+	0.0074	J+	*0.0049*
Methylene Chloride	75-09-2	mg/kg	0.0047	J	0.003	J	0.0036	J	0.002	J	0.0037	J	0.0028	J	0.0034	J	0.0018	J	0.0028	J	0.0047	J	*0.71*	*U*	0.0019
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	*0.0056*	*U*	0.0034	J	0.0029	J	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	2.6		2.8		0.003
Styrene	100-42-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	1.6		1.8		0.0011
Tetrachloroethene (PCE)	127-18-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Toluene	108-88-3	mg/kg	*0.0056*	*U*	0.0031	J	0.0021	J	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	1.1		1.1		*0.0049*
trans-1,2-Dichloroethene	156-60-5	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
trans-1,3-Dichloropropene	10061-02-6	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Trichloroethene (TCE)	79-01-6	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	0.0088	J+	0.0095	J+	*0.0049*
Trichlorofluoromethane	75-69-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
Vinyl Chloride	75-01-4	mg/kg	*0.0056*	*U*	*0.0054*	*U*	*0.0058*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.005*	*U*	*0.0054*	*U*	*0.0048*	*U*	*0.0038*	*U*	*0.0061*	*U*	*0.71*	*U*	*0.0049*
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg		R	*0.71*	*U*	*0.3*	*U*	*0.07*	*UJ*	*0.072*	*UJ*		R		R		R	*0.066*	*UJ*	*120*	*U*	*24*	*U*	*5.3*
1-methylnaphthalene	90-12-0	mg/kg	*1*	*U*	1.8		0.65	J	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	220	J	83		25
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*
2,4,5-Trichlorophenol	95-95-4	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*
2,4,6-Trichlorophenol	88-06-2	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*
2,4-Dichlorophenol	120-83-2	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*
2,4-Dimethylphenol	105-67-9	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*
2,4-Dinitrophenol	51-28-5	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-02		SB-BR-02		SB-B
			Sample:	SB-BR-01-09-10		SB-BR-01-19-20		SB-BR-01-19-20-1		SB-BR-01-29-30		SB-BR-01-39-40		SB-BR-01-50-51		SB-BR-01-53-54		SB-BR-01-60-61		SB-BR-01-67-68		SB-BR-02-07-08		SB-BR-02-13-14		SB-BR-0	
			Start Depth (ft):	9		19		19		29		39		50		53		60		67		7		13		1	
			End Depth (ft):	10		20		20		30		40		51		54		61		68		8		14		1	
			Sample Date:	10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/18/2022		10/11/2022		10/11/2022		10/11	
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2,4-Dinitrotoluene	121-14-2	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
2,6-Dinitrotoluene	606-20-2	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
2-Chloronaphthalene	91-58-7	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
2-Chlorophenol	95-57-8	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
2-Methylnaphthalene	91-57-6	mg/kg	*1*	*U*	4.5		1.1		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	470		170		50	
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
2-Nitroaniline	88-74-4	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
2-Nitrophenol	88-75-5	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
3,3'-Dichlorobenzidine	91-94-1	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
3-Nitroaniline	99-09-2	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
4-Chloro-3-Methylphenol	59-50-7	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
4-Chloroaniline	106-47-8	mg/kg	*2*	*U*	1.5	J	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
4-Nitroaniline	100-01-6	mg/kg	*2*	*U*	1.3	J	0.25	J	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
4-Nitrophenol	100-02-7	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Acenaphthene	83-32-9	mg/kg	0.41	J	7.9		3.2		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	250	J	78		43	
Acenaphthylene	208-96-8	mg/kg	*1*	*U*	0.69	J	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	24	J	*14*	
Acetophenone	98-86-2	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	0.32	*U*	*610*	*U*	*120*	*U*	*26*	
Anthracene	120-12-7	mg/kg	0.62	J	150		9.3		0.057	J	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	0.059	J	220	J	33	J	24	
Atrazine	1912-24-9	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Benzaldehyde	100-52-7	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Benzo(a)anthracene	56-55-3	mg/kg	0.69	J	16		4		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	120	J	33	J	14	
Benzo(a)pyrene	50-32-8	mg/kg	*1*	*U*	8.9		2.7		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	6.2	
Benzo(b)fluoranthene	205-99-2	mg/kg	0.81	J	14		5		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	19	J	9	
Benzo(g,h,i)perylene	191-24-2	mg/kg	*1*	*U*	2		0.83		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Benzo(k)fluoranthene	207-08-9	mg/kg	*1*	*U*	4.4		1.5		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Benzyl Butyl Phthalate	85-68-7	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Biphenyl (Diphenyl)	92-52-4	mg/kg	*1*	*U*	0.92	J	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	25	J	11	
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	0.07	J	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Caprolactam	105-60-2	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Carbazole	86-74-8	mg/kg	0.38	J	27		2.3		*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	110	J	23	J	9.7	
Chrysene	218-01-9	mg/kg	0.84	J	19		5.2		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	110	J	26	J	12	
Dibenz(a,h)anthracene	53-70-3	mg/kg	*1*	*U*	1	J	0.4	J	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Dibenzofuran	132-64-9	mg/kg	0.48	J	7.8		2.5		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	280	J	90		43	
Diethyl Phthalate	84-66-2	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Dimethyl Phthalate	131-11-3	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Di-N-Butyl Phthalate	84-74-2	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Di-N-Octylphthalate	117-84-0	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Fluoranthene	206-44-0	mg/kg	2.3		65		17		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	470		140		61	
Fluorene	86-73-7	mg/kg	*1*	*U*	23		4.5		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	320		99		46	
Hexachlorobenzene	118-74-1	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Hexachlorobutadiene	87-68-3	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Hexachlorocyclopentadiene	77-47-4	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Hexachloroethane	67-72-1	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	*1*	*U*	3.1		1.2		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Isophorone	78-59-1	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Naphthalene	91-20-3	mg/kg	0.77	J	5.1		1.7		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	3000		520		19	
Nitrobenzene	98-95-3	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
N-Nitrosodiphenylamine	86-30-6	mg/kg	*1*	*U*	*1.8*	*U*	*0.77*	*U*	*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	*310*	*U*	*61*	*U*	*14*	
Pentachlorophenol	87-86-5	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Phenanthrene	85-01-8	mg/kg	2.4		59		17		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	920		290		130	
Phenol	108-95-2	mg/kg	*2*	*U*	*3.5*	*U*	*1.5*	*U*	*0.34*	*U*	*0.35*	*U*	*0.37*	*U*	*0.35*	*U*	*0.36*	*U*	*0.32*	*U*	*610*	*U*	*120*	*U*	*26*	
Pyrene	129-00-0	mg/kg	1.3		44		11		*0.18*	*U*	*0.18*	*U*	*0.19*	*U*	*0.18*	*U*	*0.19*	*U*	*0.17*	*U*	310		92		40	
Parameters																										
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg			383																		5460			
Solids, Percent	SOLID	%			81																		75.4			
TPH, HEM-SGT	TPHNONPOLAR	mg/kg			*247*	*U*																	703			

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-02	SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03	
			Sample:	2-17-18	SB-BR-02-21-22		SB-BR-02-26-27		SB-BR-02-32-33		SB-BR-02-42-43		SB-BR-02-60-61		SB-BR-02-74-75		SB-BR-03-09-10		SB-BR-03-15-16		SB-BR-03-28-29		SB-BR-03-33-34		SB-BR-03-33-34-1	
			Start Depth (ft):	7	21		26		32		42		60		74		9		15		28		33		33	
			End Depth (ft):	8	22		27		33		43		61		75		10		16		29		34		34	
			Sample Date:	/2022	10/11/2022		10/11/2022		10/11/2022		10/11/2022		10/12/2022		10/12/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022	
Analyte	**CAS**	**Unit**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
VOCs																										
1,1,1-Trichloroethane	71-55-6	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,1,2-Trichloroethane	79-00-5	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,1-Dichloroethane	75-34-3	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,1-Dichloroethene	75-35-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg	U	0.0051	UJ	0.005	UJ	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2,3-Trichloropropane	96-18-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg	U	0.0051	U	0.005	UJ	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2,4-Trimethylbenzene	95-63-6	mg/kg		0.068		17		0.71		0.0051	U	0.0053	U	0.004	U	21		0.013		9.5		19		24		
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2-Dibromoethane	106-93-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2-Dichlorobenzene	95-50-1	mg/kg	U	0.0051	U	0.005	UJ	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2-Dichloroethane	107-06-2	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,2-Dichloropropane	78-87-5	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg		0.029		7.3		0.38	J	0.0051	U	0.0053	U	0.004	U	8.4		0.0043	J	3.7	J	7.4		9.5		
1,3-Dichlorobenzene	541-73-1	mg/kg	U	0.0051	U	0.005	UJ	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
1,4-Dichlorobenzene	106-46-7	mg/kg	U	0.0051	U	0.005	UJ	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
2-Butanone	78-93-3	mg/kg	U	0.01	U	0.01	U	0.01	U	0.01	U	0.011	U	0.0081	U	14	U	0.012	U	13	U	14	U	14	U
2-Hexanone	591-78-6	mg/kg	U	0.01	U	0.01	U	0.01	U	0.01	U	0.011	U	0.0081	U	14	U	0.012	U	13	U	14	U	14	U
4-Methyl-2-Pentanone	108-10-1	mg/kg	U	0.01	U	0.01	U	0.01	U	0.01	U	0.011	U	0.0081	U	14	U	0.012	U	13	U	14	U	14	U
Acetone	67-64-1	mg/kg	J	0.0069	J	0.011		0.0081	J	0.012		0.018		0.0075	J	14	U	0.012	U	13	U	14	U	14	U
Benzene	71-43-2	mg/kg	U	0.0051	U	0.052		0.014		0.0051	U	0.0053	U	0.004	U	7	U	0.0016	J	6.6	U	7.2	U	7	U
Bromochloromethane	74-97-5	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Bromodichloromethane	75-27-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Bromoform	75-25-2	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Bromomethane	74-83-9	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Carbon Disulfide	75-15-0	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Carbon Tetrachloride	56-23-5	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Chlorobenzene	108-90-7	mg/kg	U	0.0051	U	0.005	UJ	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Chloroethane	75-00-3	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Chloroform	67-66-3	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Chloromethane	74-87-3	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Cyclohexane	110-82-7	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Dibromochloromethane	124-48-1	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Dichlorodifluoromethane	75-71-8	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Ethylbenzene	100-41-4	mg/kg	J	0.0065		3.1		0.18		0.0051	U	0.0053	U	0.004	U	3.8	J	0.0054	J	1.5	J	3.2	J	3.9	J
Isopropylbenzene	98-82-8	mg/kg	U	0.004	J	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
M, P Xylenes	179601-23-1	mg/kg		0.019		16		0.59		0.0051	U	0.0053	U	0.004	U	13		0.018		5	J	14		18		
Methyl Acetate	79-20-9	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Methyl tert-Butyl Ether	1634-04-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Methylcyclohexane	108-87-2	mg/kg	U	0.0051	U	0.0017	J	0.0011	J	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Methylene Chloride	75-09-2	mg/kg	J	0.0014	J	0.0019	J	0.0016	J	0.0015	J	0.0023	J	0.0014	J	7	U	0.0052	J	6.6	U	7.2	U	7	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	J	0.0081		5.9		0.28	J	0.0051	U	0.0053	U	0.004	U	5.7	J	0.0092		2.2	J	6	J	7.1		
Styrene	100-42-5	mg/kg	J	0.0027	J	5.6		0.21	J	0.0051	U	0.0053	U	0.004	U	2.5	J	0.0027	J	6.6	U	4.1	J	5.2	J
Tetrachloroethene (PCE)	127-18-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Toluene	108-88-3	mg/kg	U	0.0021	J	3.7		0.24	J	0.0051	U	0.0053	U	0.004	U	1.4	J	0.011		6.6	U	1.6	J	2.1	J
trans-1,2-Dichloroethene	156-60-5	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Trichloroethene (TCE)	79-01-6	mg/kg	U	0.0051	U	0.023		0.0037	J	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Trichlorofluoromethane	75-69-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
Vinyl Chloride	75-01-4	mg/kg	U	0.0051	U	0.005	U	0.0051	U	0.0051	U	0.0053	U	0.004	U	7	U	0.0062	U	6.6	U	7.2	U	7	U
SVOCs																										
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	U	0.079	U	230	U	0.08	U	0.072	U	0.07	U	0.061	U	110	U	0.17	U	49	U	110	U	110	U
1-methylnaphthalene	90-12-0	mg/kg		0.22		570	J	0.2	U	0.18	U	0.18	U	0.16	U	550		0.44	U	220		640		690		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2,4,5-Trichlorophenol	95-95-4	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2,4,6-Trichlorophenol	88-06-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2,4-Dichlorophenol	120-83-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2,4-Dimethylphenol	105-67-9	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2,4-Dinitrophenol	51-28-5	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-02	SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03	
			Sample:	2-17-18	SB-BR-02-21-22		SB-BR-02-26-27		SB-BR-02-32-33		SB-BR-02-42-43		SB-BR-02-60-61		SB-BR-02-74-75		SB-BR-03-09-10		SB-BR-03-15-16		SB-BR-03-28-29		SB-BR-03-33-34		SB-BR-03-33-34-1	
			Start Depth (ft):	7	21		26		32		42		60		74		9		15		28		33		33	
			End Depth (ft):	8	22		27		33		43		61		75		10		16		29		34		34	
			Sample Date:	/2022	10/11/2022		10/11/2022		10/11/2022		10/11/2022		10/12/2022		10/12/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022	
Analyte	**CAS**	**Unit**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
2,4-Dinitrotoluene	121-14-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2,6-Dinitrotoluene	606-20-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2-Chloronaphthalene	91-58-7	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2-Chlorophenol	95-57-8	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2-Methylnaphthalene	91-57-6	mg/kg		0.23		1200		0.2	U	0.18	U	0.071	J	0.16	U	1100		0.44	U	440		1300		1400	
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
2-Nitroaniline	88-74-4	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
2-Nitrophenol	88-75-5	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
3-Nitroaniline	99-09-2	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
4-Chloro-3-Methylphenol	59-50-7	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
4-Chloroaniline	106-47-8	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
4-Nitroaniline	100-01-6	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
4-Nitrophenol	100-02-7	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Acenaphthene	83-32-9	mg/kg		0.47		610		0.2	U	0.18	U	0.18	U	0.16	U	880		0.44	U	340		880		930	
Acenaphthylene	208-96-8	mg/kg	U	0.15	J	590	U	0.2	U	0.18	U	0.18	U	0.16	U	130	J	0.44	U	130	U	150	J	160	J
Acetophenone	98-86-2	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Anthracene	120-12-7	mg/kg		0.23		540	J	0.05	J	0.18	U	0.18	U	0.16	U	340		0.44	U	82	J	230	J	240	J
Atrazine	1912-24-9	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Benzaldehyde	100-52-7	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Benzo(a)anthracene	56-55-3	mg/kg		0.14	J	240	J	0.2	U	0.18	U	0.18	U	0.16	U	380		0.44	U	150		350		370	
Benzo(a)pyrene	50-32-8	mg/kg	J	0.068	J	590	U	0.2	U	0.18	U	0.18	U	0.16	U	130	J	0.44	U	53	J	130	J	140	J
Benzo(b)fluoranthene	205-99-2	mg/kg	J	0.091	J	590	U	0.2	U	0.18	U	0.18	U	0.16	U	200	J	0.44	U	79	J	190	J	210	J
Benzo(g,h,i)perylene	191-24-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Benzo(k)fluoranthene	207-08-9	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Benzyl Butyl Phthalate	85-68-7	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Biphenyl (Diphenyl)	92-52-4	mg/kg	J	0.16	J	590	U	0.2	U	0.18	U	0.18	U	0.16	U	220	J	0.44	U	82	J	220	J	240	J
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.45		0.078	J	270	U	0.44	U	130	U	270	U	280	U
Caprolactam	105-60-2	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Carbazole	86-74-8	mg/kg	J	0.64		240	J	0.072	J	0.35	U	0.35	U	0.3	U	210	J	0.24	J	48	J	150	J	160	J
Chrysene	218-01-9	mg/kg	J	0.1	J	190	J	0.2	U	0.18	U	0.18	U	0.16	U	280		0.44	U	90	J	240	J	260	J
Dibenz(a,h)anthracene	53-70-3	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Dibenzofuran	132-64-9	mg/kg		0.85		630		0.2	U	0.18	U	0.18	U	0.16	U	940		0.58		340		890		950	
Diethyl Phthalate	84-66-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Dimethyl Phthalate	131-11-3	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Di-N-Butyl Phthalate	84-74-2	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Di-N-Octylphthalate	117-84-0	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Fluoranthene	206-44-0	mg/kg		0.58		1000		0.15	J	0.18	U	0.18	U	0.16	U	1900		0.41	J	700		1600		1800	
Fluorene	86-73-7	mg/kg		0.73		730		0.2	U	0.18	U	0.18	U	0.16	U	1100		0.44	U	400		1000		1100	
Hexachlorobenzene	118-74-1	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Hexachlorobutadiene	87-68-3	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Hexachlorocyclopentadiene	77-47-4	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Hexachloroethane	67-72-1	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Isophorone	78-59-1	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Naphthalene	91-20-3	mg/kg		1.4		4500		0.14	J	0.18	U	0.39		0.24			R		R		R		R		R
Nitrobenzene	98-95-3	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
N-Nitrosodiphenylamine	86-30-6	mg/kg	U	0.2	U	590	U	0.2	U	0.18	U	0.18	U	0.16	U	270	U	0.44	U	130	U	270	U	280	U
Pentachlorophenol	87-86-5	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Phenanthrene	85-01-8	mg/kg		2.8		2100		0.25		0.18	U	0.05	J	0.16	U	3400		0.7		1200		3000		3200	
Phenol	108-95-2	mg/kg	U	0.39	U	1100	U	0.4	U	0.35	U	0.35	U	0.3	U	530	U	0.84	U	240	U	520	U	540	U
Pyrene	129-00-0	mg/kg		0.38		670		0.11	J	0.18	U	0.18	U	0.16	U	1200		0.27	J	460		1100		1200	
Parameters																										
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																				41600			
Solids, Percent	SOLID	%																				73.9			
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																				18100			

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-04		SB-B
			Sample:	SB-BR-03-37-38		SB-BR-03-47-48		SB-BR-03-58-59		SB-BR-03-67-68		SB-BR-03-73-74		SB-BR-03-85-86		SB-BR-04-05-06		SB-BR-04-11-12		SB-BR-04-16-17		SB-BR-04-23-24		SB-BR-04-37-38		SB-BR-0	
			Start Depth (ft):	37		47		58		67		73		85		5		11		16		23		37		4	
			End Depth (ft):	38		48		59		68		74		86		6		12		17		24		38		4	
			Sample Date:	10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/26/2022		10/26/2022		10/26/2022		10/26/2022		10/26/2022		10/26
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,1,2-Trichloroethane	79-00-5	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,1-Dichloroethane	75-34-3	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,1-Dichloroethene	75-35-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2,3-Trichloropropane	96-18-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.093		0.002	J	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.039		0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2-Dibromoethane	106-93-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2-Dichlorobenzene	95-50-1	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2-Dichloroethane	107-06-2	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,2-Dichloropropane	78-87-5	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	0.036		0.0017	J	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,3-Dichlorobenzene	541-73-1	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
1,4-Dichlorobenzene	106-46-7	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
2-Butanone	78-93-3	mg/kg	0.011	U	0.012	U	0.011	U	0.011	U	0.012	U	0.011	U	0.0093	U	0.011	U	0.012	U	0.0088	U	0.0096	U	0.0073
2-Hexanone	591-78-6	mg/kg	0.011	U	0.012	U	0.011	U	0.011	U	0.012	U	0.011	U	0.0093	U	0.011	U	0.012	U	0.0088	U	0.0096	U	0.0073
4-Methyl-2-Pentanone	108-10-1	mg/kg	0.011	U	0.012	U	0.011	U	0.011	U	0.012	U	0.011	U	0.0093	U	0.011	U	0.012	U	0.0088	U	0.0096	U	0.0073
Acetone	67-64-1	mg/kg	0.013		0.018		0.011	U	0.011	U	0.012	U	0.012		0.013		0.011	U	0.012	U	0.0088	U	0.0096	U	0.0073
Benzene	71-43-2	mg/kg	0.0056	U	0.001	J	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Bromochloromethane	74-97-5	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Bromodichloromethane	75-27-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Bromoform	75-25-2	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Bromomethane	74-83-9	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Carbon Disulfide	75-15-0	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Carbon Tetrachloride	56-23-5	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Chlorobenzene	108-90-7	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Chloroethane	75-00-3	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Chloroform	67-66-3	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Chloromethane	74-87-3	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0047	J	0.0035	J	0.0021	J	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Cyclohexane	110-82-7	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Dibromochloromethane	124-48-1	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Dichlorodifluoromethane	75-71-8	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Ethylbenzene	100-41-4	mg/kg	0.016		0.0061		0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Isopropylbenzene	98-82-8	mg/kg	0.0036	J	0.0018	J	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
M, P Xylenes	179601-23-1	mg/kg	0.081		0.0093		0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Methyl Acetate	79-20-9	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Methyl tert-Butyl Ether	1634-04-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Methylcyclohexane	108-87-2	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Methylene Chloride	75-09-2	mg/kg	0.0023	J	0.0026	J	0.0026	J	0.0018	J	0.0025	J	0.0096		0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	0.031		0.0097		0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Styrene	100-42-5	mg/kg	0.024		0.0055	J	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Tetrachloroethene (PCE)	127-18-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Toluene	108-88-3	mg/kg	0.013		0.0042	J	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Trichloroethene (TCE)	79-01-6	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0028	J	0.002	J	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Trichlorofluoromethane	75-69-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
Vinyl Chloride	75-01-4	mg/kg	0.0056	U	0.0061	U	0.0057	U	0.0056	U	0.0058	U	0.0056	U	0.0046	U	0.0057	U	0.0058	U	0.0044	U	0.0048	U	0.0036
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	0.69	U	0.2	U	0.21	U	0.19	U	0.2	U	0.18	U	0.2	U	0.18	U	0.21	U	0.22	U	0.22	U	0.19
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	0.27	UJ	0.078	UJ	0.081	UJ	0.075	U	0.077	U	0.069	UJ	0.078	U	0.07	U	0.084	U	0.088	U	0.088	U	0.073
1-methylnaphthalene	90-12-0	mg/kg	0.69	U	0.2	U	0.21	U	0.19	U	0.2	U	0.18	U	0.2	U	0.18	U	0.21	U	0.22	U	0.22	U	0.19
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	0.69	U	0.2	U	0.21	U	0.19	U	0.2	U	0.18	U	0.2	U	0.18	U	0.21	U	0.22	U	0.22	U	0.19
2,4,5-Trichlorophenol	95-95-4	mg/kg	0.69	U	0.2	U	0.21	U	0.19	U	0.2	U	0.18	U	0.2	U	0.18	U	0.21	U	0.22	U	0.22	U	0.19
2,4,6-Trichlorophenol	88-06-2	mg/kg	0.69	U	0.2	U	0.21	U	0.19	U	0.2	U	0.18	U	0.2	U	0.18	U	0.21	U	0.22	U	0.22	U	0.19
2,4-Dichlorophenol	120-83-2	mg/kg	0.69	U	0.2	U	0.21	U	0.19	U	0.2	U	0.18	U	0.2	U	0.18	U	0.21	U	0.22	U	0.22	U	0.19
2,4-Dimethylphenol	105-67-9	mg/kg	0.69	U	0.2	U	0.21	U	0.19	U	0.2	U	0.18	U	0.2	U	0.18	U	0.21	U	0.22	U	0.22	U	0.19
2,4-Dinitrophenol	51-28-5	mg/kg	1.3	U	0.39	U	0.4	U	0.37	U	0.38	U	0.34	U	0.38	U	0.34	U	0.42	U	0.43	U	0.43	U	0.36

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-04		SB-B
			Sample:	SB-BR-03-37-38		SB-BR-03-47-48		SB-BR-03-58-59		SB-BR-03-67-68		SB-BR-03-73-74		SB-BR-03-85-86		SB-BR-04-05-06		SB-BR-04-11-12		SB-BR-04-16-17		SB-BR-04-23-24		SB-BR-04-37-38		SB-BR-0	
			Start Depth (ft):	37		47		58		67		73		85		5		11		16		23		37		4	
			End Depth (ft):	38		48		59		68		74		86		6		12		17		24		38		4	
			Sample Date:	10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/3/2022		10/26/2022		10/26/2022		10/26/2022		10/26/2022		10/26/2022		10/26
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2,4-Dinitrotoluene	121-14-2	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
2,6-Dinitrotoluene	606-20-2	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
2-Chloronaphthalene	91-58-7	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
2-Chlorophenol	95-57-8	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
2-Methylnaphthalene	91-57-6	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
2-Nitroaniline	88-74-4	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
2-Nitrophenol	88-75-5	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
3,3'-Dichlorobenzidine	91-94-1	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
3-Nitroaniline	99-09-2	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
4-Chloro-3-Methylphenol	59-50-7	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
4-Chloroaniline	106-47-8	mg/kg	1.1	J	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
4-Nitroaniline	100-01-6	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
4-Nitrophenol	100-02-7	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Acenaphthene	83-32-9	mg/kg	1.8		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Acenaphthylene	208-96-8	mg/kg	0.39	J	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Acetophenone	98-86-2	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Anthracene	120-12-7	mg/kg	0.88		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Atrazine	1912-24-9	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Benzaldehyde	100-52-7	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Benzo(a)anthracene	56-55-3	mg/kg	1.2		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Benzo(a)pyrene	50-32-8	mg/kg	0.49	J	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Benzo(b)fluoranthene	205-99-2	mg/kg	0.66	J	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Benzo(g,h,i)perylene	191-24-2	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Benzo(k)fluoranthene	207-08-9	mg/kg	0.23	J	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Benzyl Butyl Phthalate	85-68-7	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Biphenyl (Diphenyl)	92-52-4	mg/kg	0.43	J	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Caprolactam	105-60-2	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Carbazole	86-74-8	mg/kg	0.84	J	0.2	J	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Chrysene	218-01-9	mg/kg	0.85		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Dibenz(a,h)anthracene	53-70-3	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Dibenzofuran	132-64-9	mg/kg	2.1		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Diethyl Phthalate	84-66-2	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Dimethyl Phthalate	131-11-3	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Di-N-Butyl Phthalate	84-74-2	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Di-N-Octylphthalate	117-84-0	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Fluoranthene	206-44-0	mg/kg	5.2		0.067	J	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Fluorene	86-73-7	mg/kg	2.6		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Hexachlorobenzene	118-74-1	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Hexachlorobutadiene	87-68-3	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Hexachlorocyclopentadiene	77-47-4	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Hexachloroethane	67-72-1	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Isophorone	78-59-1	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Naphthalene	91-20-3	mg/kg		R		R		R	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Nitrobenzene	98-95-3	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
N-Nitrosodiphenylamine	86-30-6	mg/kg	*0.69*	*U*	*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Pentachlorophenol	87-86-5	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Phenanthrene	85-01-8	mg/kg	9.4		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Phenol	108-95-2	mg/kg	*1.3*	*U*	*0.39*	*U*	*0.4*	*U*	*0.37*	*U*	*0.38*	*U*	*0.34*	*U*	*0.38*	*U*	*0.34*	*U*	*0.42*	*U*	*0.43*	*U*	*0.43*	*U*	*0.36*
Pyrene	129-00-0	mg/kg	3.4		*0.2*	*U*	*0.21*	*U*	*0.19*	*U*	*0.2*	*U*	*0.18*	*U*	*0.2*	*U*	*0.18*	*U*	*0.21*	*U*	*0.22*	*U*	*0.22*	*U*	*0.19*
Parameters																									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																							
Solids, Percent	SOLID	%																							
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																							

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-04	SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05	
			Sample:	4-47-48	SB-BR-04-57-58		SB-BR-04-82-83		SB-BR-04-106-107		SB-BR-04-114-115		SB-BR-05-10-11		SB-BR-05-10-11-2		SB-BR-05-25-26		SB-BR-05-25-26-2		SB-BR-05-33-34		SB-BR-05-33-34-2		SB-BR-05-38-39	
			Start Depth (ft):	7	57		82		106		114		10		10		25		25		33		33		38	
			End Depth (ft):	8	58		83		107		115		11		11		26		26		34		34		39	
			Sample Date:	/2022	10/26/2022		10/27/2022		10/27/2022		10/27/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022	
Analyte	**CAS**	**Unit**		**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
VOCs																										
1,1,1-Trichloroethane	71-55-6	mg/kg		U	0.0039	U	0.0014	J	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	UJ		R	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,1,2-Trichloroethane	79-00-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,1-Dichloroethane	75-34-3	mg/kg		U	0.0039	U	0.0011	J	0.0041	U	0.0049	U	0.0056	U	0.0065	UJ	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,1-Dichloroethene	75-35-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2,3-Trichloropropane	96-18-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2,4-Trimethylbenzene	95-63-6	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.013		0.0065		0.0057	U	0.0019	J	0.0055	U	0.0051	U	0.26	J
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	UJ	0.0054	J-	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2-Dibromoethane	106-93-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2-Dichlorobenzene	95-50-1	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2-Dichloroethane	107-06-2	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,2-Dichloropropane	78-87-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065		0.0068		0.0069		0.0055	U	0.0052		0.54	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0052	J	0.0022	J	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.14	J
1,3-Dichlorobenzene	541-73-1	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
1,4-Dichlorobenzene	106-46-7	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
2-Butanone	78-93-3	mg/kg		U	0.0077	U	0.011	U	0.0082	U	0.0098	U	0.037		0.03		0.011	U	0.012	U	0.011	U	0.01	U	1.1	U
2-Hexanone	591-78-6	mg/kg		U	0.0077	U	0.011	U	0.0082	U	0.0098	U	0.011	U	0.013	U	0.0048	J	0.012	U	0.011	U	0.01	U	1.1	U
4-Methyl-2-Pentanone	108-10-1	mg/kg		U	0.0077	U	0.011	U	0.0082	U	0.0098	U	0.011	U	0.013	U	0.011	U	0.012	U	0.011	U	0.01	U	1.1	U
Acetone	67-64-1	mg/kg		U	0.0077	U	0.011	U	0.0082	U	0.0098	U	0.23		0.2		0.011	U	0.012	U	0.011	U	0.01	U	1.1	U
Benzene	71-43-2	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Bromochloromethane	74-97-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	UJ	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Bromodichloromethane	75-27-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Bromoform	75-25-2	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	UJ	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Bromomethane	74-83-9	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Carbon Disulfide	75-15-0	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Carbon Tetrachloride	56-23-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.01		0.0094		0.01		0.0055	U	0.0082		0.54	U
Chlorobenzene	108-90-7	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Chloroethane	75-00-3	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Chloroform	67-66-3	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.017		0.035	J-	0.0025	J	0.0025	J	0.0055	U	0.0018	J	0.54	U
Chloromethane	74-87-3	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
cis-1,2-Dichloroethene	156-59-2	mg/kg		U	0.0039	U	0.0046	J	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.003	J	0.0031	J	0.0032	J	0.0055	U	0.0024	J	0.54	U
Cyclohexane	110-82-7	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0015	J	0.0062	U	0.0055	U	0.0051	U	0.54	U
Dibromochloromethane	124-48-1	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	UJ	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Dichlorodifluoromethane	75-71-8	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Ethylbenzene	100-41-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Isopropylbenzene	98-82-8	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
M, P Xylenes	179601-23-1	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Methyl Acetate	79-20-9	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Methyl tert-Butyl Ether	1634-04-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Methylcyclohexane	108-87-2	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.009		0.0092		0.0093		0.0055	U	0.0074		0.54	U
Methylene Chloride	75-09-2	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0061	J	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Styrene	100-42-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Tetrachloroethene (PCE)	127-18-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Toluene	108-88-3	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0098		0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
trans-1,2-Dichloroethene	156-60-5	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Trichloroethene (TCE)	79-01-6	mg/kg		U	0.0039	U	0.0046	J	0.0041	U	0.0049	U	0.0056	U	0.0038	J	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Trichlorofluoromethane	75-69-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
Vinyl Chloride	75-01-4	mg/kg		U	0.0039	U	0.0054	U	0.0041	U	0.0049	U	0.0056	U	0.0065	U	0.0057	U	0.0062	U	0.0055	U	0.0051	U	0.54	U
SVOCs																										
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg		U	0.074	U	0.081	U	0.067	U	0.066	U	2.2	U			0.081	U			0.075	U			11	U
1-methylnaphthalene	90-12-0	mg/kg		U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2,4-Dichlorophenol	120-83-2	mg/kg		U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2,4-Dimethylphenol	105-67-9	mg/kg		U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2,4-Dinitrophenol	51-28-5	mg/kg		U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-04	SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05	
			Sample:	4-47-48	SB-BR-04-57-58		SB-BR-04-82-83		SB-BR-04-106-107		SB-BR-04-114-115		SB-BR-05-10-11		SB-BR-05-10-11-2		SB-BR-05-25-26		SB-BR-05-25-26-2		SB-BR-05-33-34		SB-BR-05-33-34-2		SB-BR-05-38-39	
			Start Depth (ft):	7	57		82		106		114		10		10		25		25		33		33		38	
			End Depth (ft):	8	58		83		107		115		11		11		26		26		34		34		39	
			Sample Date:	/2022	10/26/2022		10/27/2022		10/27/2022		10/27/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022	
Analyte	CAS	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2,4-Dinitrotoluene	121-14-2	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2,6-Dinitrotoluene	606-20-2	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2-Chloronaphthalene	91-58-7	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2-Chlorophenol	95-57-8	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2-Methylnaphthalene	91-57-6	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
2-Nitroaniline	88-74-4	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
2-Nitrophenol	88-75-5	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
3-Nitroaniline	99-09-2	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
4-Chloro-3-Methylphenol	59-50-7	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
4-Chloroaniline	106-47-8	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
4-Nitroaniline	100-01-6	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
4-Nitrophenol	100-02-7	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Acenaphthene	83-32-9	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			47	
Acenaphthylene	208-96-8	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			5.5	J
Acetophenone	98-86-2	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Anthracene	120-12-7	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	6.5				0.21	U			0.19	U			45	
Atrazine	1912-24-9	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Benzaldehyde	100-52-7	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Benzo(a)anthracene	56-55-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	4.4	J			0.21	U			0.19	U			23	J
Benzo(a)pyrene	50-32-8	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	2	J			0.21	U			0.19	U			9.4	J
Benzo(b)fluoranthene	205-99-2	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	3.5	J			0.21	U			0.19	U			13	J
Benzo(g,h,i)perylene	191-24-2	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	0.77	J			0.21	U			0.19	U			2.8	J
Benzo(k)fluoranthene	207-08-9	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	1.4	J			0.21	U			0.19	U			6.3	J
Benzyl Butyl Phthalate	85-68-7	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Biphenyl (Diphenyl)	92-52-4	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	0.43	J			0.21	U			0.19	U			12	J
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	U	0.19	U	0.1	J	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Caprolactam	105-60-2	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Carbazole	86-74-8	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	2.8	J			0.4	U			0.37	U			23	J
Chrysene	218-01-9	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	4.3	J			0.21	U			0.19	U			21	J
Dibenz(a,h)anthracene	53-70-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	0.33	J			0.21	U			0.19	U			26	U
Dibenzofuran	132-64-9	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	3.6	J			0.21	U			0.19	U			55	
Diethyl Phthalate	84-66-2	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Dimethyl Phthalate	131-11-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Di-N-Butyl Phthalate	84-74-2	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Di-N-Octylphthalate	117-84-0	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Fluoranthene	206-44-0	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	19				0.21	U			0.19	U			110	
Fluorene	86-73-7	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	4.3	J			0.21	U			0.19	U			66	
Hexachlorobenzene	118-74-1	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Hexachlorobutadiene	87-68-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Hexachlorocyclopentadiene	77-47-4	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Hexachloroethane	67-72-1	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	0.99	J			0.21	U			0.19	U			3.5	J
Isophorone	78-59-1	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Naphthalene	91-20-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.24				26	U
Nitrobenzene	98-95-3	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	U	0.19	U	0.21	U	0.19		0.17	U	5.5	U			0.21	U			0.19	U			26	U
N-Nitrosodiphenylamine	86-30-6	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	5.5	U			0.21	U			0.19	U			26	U
Pentachlorophenol	87-86-5	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Phenanthrene	85-01-8	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	23				0.16	J			0.19	U			210	
Phenol	108-95-2	mg/kg	U	0.36	U	0.4	U	0.33	U	0.32	U	11	U			0.4	U			0.37	U			53	U
Pyrene	129-00-0	mg/kg	U	0.19	U	0.21	U	0.17	U	0.17	U	12				0.21	U			0.19	U			69	
Parameters																									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																						6530	
Solids, Percent	SOLID	%																						89.2	
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																						2470	

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-06		SB-BR-06		SB-B
			Sample:	SB-BR-05-38-39-1		SB-BR-05-38-39-2		SB-BR-05-38-39-2-1		SB-BR-05-44-45		SB-BR-05-44-45-2		SB-BR-05-57-58		SB-BR-05-57-58-2		SB-BR-05-66-67		SB-BR-05-66-67-2		SB-BR-06-00-05		SB-BR-06-00-05-2		SB-BR-0
			Start Depth (ft):	38		38		38		44		44		57		57		66		66		0		0		1
			End Depth (ft):	39		39		39		45		45		58		58		67		67		5		5		1
			Sample Date:	12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		1/3/2023		1/3/2023		1/3/
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	*0.59*	*U*	0.0026	J	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,1,2-Trichloroethane	79-00-5	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,1-Dichloroethane	75-34-3	mg/kg	*0.59*	*U*	0.0013	J	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,1-Dichloroethene	75-35-4	mg/kg	*0.59*	*U*	0.00089	J	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2,3-Trichlorobenzene	87-61-6	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2,3-Trichloropropane	96-18-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2,4-Trichlorobenzene	120-82-1	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2,4-Trimethylbenzene	95-63-6	mg/kg	2.4		0.046		*0.31*	*U*	29		0.41	J	6.3		12		*0.0049*	*U*	*0.0057*	*U*	0.0024	J	*0.011*	*U*	*0.0054*
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	*0.59*	*U*	0.014		*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2-Dibromoethane	106-93-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2-Dichlorobenzene	95-50-1	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2-Dichloroethane	107-06-2	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,2-Dichloropropane	78-87-5	mg/kg	*0.59*	*U*	0.0059		*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	0.0054		0.006		*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	1.3		0.025		*0.31*	*U*	15		0.19	J	2.7		5.1		*0.0049*	*U*	*0.0057*	*U*	0.0019	J	*0.011*	*U*	*0.0054*
1,3-Dichlorobenzene	541-73-1	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
1,4-Dichlorobenzene	106-46-7	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
2-Butanone	78-93-3	mg/kg	*1.2*	*U*	*0.01*	*U*	*0.62*	*U*	*1.3*	*U*	*1*	*U*	*1.3*	*U*	*1.2*	*U*	*0.0099*	*U*	*0.011*	*U*	0.013	J	*0.022*	*U*	*0.011*
2-Hexanone	591-78-6	mg/kg	*1.2*	*U*	0.0042	J	*0.62*	*U*	*1.3*	*U*	*1*	*U*	*1.3*	*U*	*1.2*	*U*	0.0045	J	0.0048	J	*0.014*	*U*	*0.022*	*U*	*0.011*
4-Methyl-2-Pentanone	108-10-1	mg/kg	*1.2*	*U*	*0.01*	*U*	*0.62*	*U*	*1.3*	*U*	*1*	*U*	*1.3*	*U*	*1.2*	*U*	*0.0099*	*U*	*0.011*	*U*	*0.014*	*U*	*0.022*	*U*	*0.011*
Acetone	67-64-1	mg/kg	*1.2*	*U*	*0.01*	*U*	*0.62*	*U*	*1.3*	*U*	*1*	*U*	*1.3*	*U*	*1.2*	*U*	*0.0099*	*U*	*0.011*	*U*	0.051		0.04		0.021
Benzene	71-43-2	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Bromochloromethane	74-97-5	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Bromodichloromethane	75-27-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Bromoform	75-25-2	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Bromomethane	74-83-9	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Carbon Disulfide	75-15-0	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Carbon Tetrachloride	56-23-5	mg/kg	*0.59*	*U*	0.0085		*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	0.0081		0.0094		*0.0072*	*U*	*0.011*	*U*	*0.0054*
Chlorobenzene	108-90-7	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Chloroethane	75-00-3	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Chloroform	67-66-3	mg/kg	*0.59*	*U*	0.0018	J	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	0.0018	J	0.0024	J	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Chloromethane	74-87-3	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
cis-1,2-Dichloroethene	156-59-2	mg/kg	*0.59*	*U*	0.0063		*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
cis-1,3-Dichloropropene	10061-01-5	mg/kg	*0.59*	*U*	0.0027	J	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	0.0026	J	0.0028	J	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Cyclohexane	110-82-7	mg/kg	*0.59*	*U*	0.0013	J	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Dibromochloromethane	124-48-1	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Dichlorodifluoromethane	75-71-8	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Ethylbenzene	100-41-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	8.1		*0.51*	*U*	0.78		1.5		*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Isopropylbenzene	98-82-8	mg/kg	*0.59*	*U*	0.0026	J	*0.31*	*U*	1.1		*0.51*	*U*	0.28	J	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
M, P Xylenes	179601-23-1	mg/kg	*0.59*	*U*	0.0063		*0.31*	*U*	30		*0.51*	*U*	2.4		4.6		*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Methyl Acetate	79-20-9	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Methyl tert-Butyl Ether	1634-04-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Methylcyclohexane	108-87-2	mg/kg	*0.59*	*U*	0.0082		*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	0.0076		0.0083		*0.0072*	*U*	*0.011*	*U*	*0.0054*
Methylene Chloride	75-09-2	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	12		*0.51*	*U*	1.5		2.9		*0.0049*	*U*	*0.0057*	*U*	0.0014	J	*0.011*	*U*	*0.0054*
Styrene	100-42-5	mg/kg	*0.59*	*U*	0.0011	J	*0.31*	*U*	9.1		*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Tetrachloroethene (PCE)	127-18-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Toluene	108-88-3	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	1.7		*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
trans-1,2-Dichloroethene	156-60-5	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
trans-1,3-Dichloropropene	10061-02-6	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Trichloroethene (TCE)	79-01-6	mg/kg	*0.59*	*U*	0.017		*0.31*	*U*	0.21	J	*0.51*	*U*	*0.64*	*U*	0.16	J	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	0.0015
Trichlorofluoromethane	75-69-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
Vinyl Chloride	75-01-4	mg/kg	*0.59*	*U*	*0.0051*	*U*	*0.31*	*U*	*0.63*	*U*	*0.51*	*U*	*0.64*	*U*	*0.59*	*U*	*0.0049*	*U*	*0.0057*	*U*	*0.0072*	*U*	*0.011*	*U*	*0.0054*
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	*10*	*U*					*11*	*U*			*23*	*U*			*0.069*	*U*			*1.9*	*U*			*0.066*
1-methylnaphthalene	90-12-0	mg/kg	*25*	*U*					30				140				*0.18*	*U*			*4.8*	*U*			*0.17*
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*
2,4,5-Trichlorophenol	95-95-4	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*
2,4,6-Trichlorophenol	88-06-2	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*
2,4-Dichlorophenol	120-83-2	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*
2,4-Dimethylphenol	105-67-9	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*
2,4-Dinitrophenol	51-28-5	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-06		SB-BR-06		SB-B			
		Sample:	SB-BR-05-38-39-1		SB-BR-05-38-39-2		SB-BR-05-38-39-2-1		SB-BR-05-44-45		SB-BR-05-44-45-2		SB-BR-05-57-58		SB-BR-05-57-58-2		SB-BR-05-66-67		SB-BR-05-66-67-2		SB-BR-06-00-05		SB-BR-06-00-05-2		SB-BR-0			
		Start Depth (ft):	38		38		38		44		44		57		57		66		66		0		0		1			
		End Depth (ft):	39		39		39		45		45		58		58		67		67		5		5		1			
		Sample Date:	12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		12/15/2022		1/3/2023		1/3/2023		1/3/			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**			
2,4-Dinitrotoluene	121-14-2	mg/kg	*25*	*U*					*27*	*U*			6.3	J			*0.18*	*U*			*4.8*	*U*			*0.17*			
2,6-Dinitrotoluene	606-20-2	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
2-Chloronaphthalene	91-58-7	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
2-Chlorophenol	95-57-8	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
2-Methylnaphthalene	91-57-6	mg/kg	43						61				280				*0.18*	*U*			*4.8*	*U*			*0.17*			
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
2-Nitroaniline	88-74-4	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
2-Nitrophenol	88-75-5	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
3,3'-Dichlorobenzidine	91-94-1	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
3-Nitroaniline	99-09-2	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
4-Chloro-3-Methylphenol	59-50-7	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
4-Chloroaniline	106-47-8	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
4-Nitroaniline	100-01-6	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
4-Nitrophenol	100-02-7	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Acenaphthene	83-32-9	mg/kg	51						77				260				*0.18*	*U*			*4.8*	*U*			*0.17*			
Acenaphthylene	208-96-8	mg/kg	5.4	J					3.4	J			12	J			*0.18*	*U*			*4.8*	*U*			*0.17*			
Acetophenone	98-86-2	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Anthracene	120-12-7	mg/kg	41						18	J			78				*0.18*	*U*			*4.8*	*U*			*0.17*			
Atrazine	1912-24-9	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Benzaldehyde	100-52-7	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Benzo(a)anthracene	56-55-3	mg/kg	19	J					26	J			110				*0.18*	*U*			*4.8*	*U*			*0.17*			
Benzo(a)pyrene	50-32-8	mg/kg	7.1	J					9.6	J			47	J			*0.18*	*U*			*4.8*	*U*			*0.17*			
Benzo(b)fluoranthene	205-99-2	mg/kg	11	J					15	J			69				*0.18*	*U*			4.4	J			*0.17*			
Benzo(g,h,i)perylene	191-24-2	mg/kg	1.9	J					2.3	J			12	J			*0.18*	*U*			*4.8*	*U*			*0.17*			
Benzo(k)fluoranthene	207-08-9	mg/kg	3.7	J					6.3	J			28	J			*0.18*	*U*			*4.8*	*U*			*0.17*			
Benzyl Butyl Phthalate	85-68-7	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Biphenyl (Diphenyl)	92-52-4	mg/kg	13	J					15	J			65				*0.18*	*U*			*4.8*	*U*			*0.17*			
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Caprolactam	105-60-2	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Carbazole	86-74-8	mg/kg	27	J					12	J			29	J			*0.34*	*U*			*9.4*	*U*			*0.33*			
Chrysene	218-01-9	mg/kg	16	J					18	J			84				*0.18*	*U*			3.4	J			*0.17*			
Dibenz(a,h)anthracene	53-70-3	mg/kg	*25*	*U*					*27*	*U*			5.5	J			*0.18*	*U*			*4.8*	*U*			*0.17*			
Dibenzofuran	132-64-9	mg/kg	54						61				250				*0.18*	*U*			*4.8*	*U*			*0.17*			
Diethyl Phthalate	84-66-2	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Dimethyl Phthalate	131-11-3	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Di-N-Butyl Phthalate	84-74-2	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Di-N-Octylphthalate	117-84-0	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Fluoranthene	206-44-0	mg/kg	100						140				560				*0.18*	*U*			7.5				*0.17*			
Fluorene	86-73-7	mg/kg	65						70				280				*0.18*	*U*			*4.8*	*U*			*0.17*			
Hexachlorobenzene	118-74-1	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Hexachlorobutadiene	87-68-3	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Hexachlorocyclopentadiene	77-47-4	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Hexachloroethane	67-72-1	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	2.5	J					3	J			16	J			*0.18*	*U*			*4.8*	*U*			*0.17*			
Isophorone	78-59-1	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Naphthalene	91-20-3	mg/kg	46						74				440				0.16	J			*4.8*	*U*			*0.17*			
Nitrobenzene	98-95-3	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
N-Nitrosodiphenylamine	86-30-6	mg/kg	*25*	*U*					*27*	*U*			*57*	*U*			*0.18*	*U*			*4.8*	*U*			*0.17*			
Pentachlorophenol	87-86-5	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Phenanthrene	85-01-8	mg/kg	200						230				970				*0.18*	*U*			3	J			*0.17*			
Phenol	108-95-2	mg/kg	*51*	*U*					*54*	*U*			*110*	*U*			*0.34*	*U*			*9.4*	*U*			*0.33*			
Pyrene	129-00-0	mg/kg	65						92				370				*0.18*	*U*			5.7				*0.17*			
Parameters																												
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																										
Solids, Percent	SOLID	%																										
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																										

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-06	SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06	
			Sample:	6-10-11	SB-BR-06-10-11-2		SB-BR-06-22-23		SB-BR-06-22-23-2		SB-BR-06-34-35		SB-BR-06-34-35-2		SB-BR-06-49-50		SB-BR-06-49-50-2		SB-BR-06-59-60		SB-BR-06-59-60-2		SB-BR-06-64-65		SB-BR-06-64-65-2	
			Start Depth (ft):	0	10		22		22		34		34		49		49		59		59		64		64	
			End Depth (ft):	1	11		23		23		35		35		50		50		60		60		65		65	
			Sample Date:	2023	1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023	
Analyte	CAS	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
VOCs																										
1,1,1-Trichloroethane	71-55-6	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,1,2-Trichloroethane	79-00-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,1-Dichloroethane	75-34-3	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,1-Dichloroethene	75-35-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2,3-Trichloropropane	96-18-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2,4-Trimethylbenzene	95-63-6	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2-Dibromoethane	106-93-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2-Dichlorobenzene	95-50-1	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2-Dichloroethane	107-06-2	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,2-Dichloropropane	78-87-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,3-Dichlorobenzene	541-73-1	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
1,4-Dichlorobenzene	106-46-7	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
2-Butanone	78-93-3	mg/kg	U	0.0091	U	0.0097	U	0.014	U	0.0089	U	0.022	U	0.0098	U	0.011	U	0.0074	U	0.0084	U	0.011	U	0.014	U
2-Hexanone	591-78-6	mg/kg	U	0.0091	U	0.0097	U	0.014	U	0.0089	U	0.022	U	0.0098	U	0.011	U	0.0074	U	0.0084	U	0.011	U	0.014	U
4-Methyl-2-Pentanone	108-10-1	mg/kg	U	0.0091	U	0.0097	U	0.014	U	0.0089	U	0.022	U	0.0098	U	0.011	U	0.0074	U	0.0084	U	0.011	U	0.014	U
Acetone	67-64-1	mg/kg		0.01		0.0097	U	0.014	U	0.0089	U	0.022	U	0.021		0.015		0.0074	U	0.0084	U	0.012		0.014	U
Benzene	71-43-2	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Bromochloromethane	74-97-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Bromodichloromethane	75-27-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Bromoform	75-25-2	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Bromomethane	74-83-9	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Carbon Disulfide	75-15-0	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Carbon Tetrachloride	56-23-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Chlorobenzene	108-90-7	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Chloroethane	75-00-3	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Chloroform	67-66-3	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Chloromethane	74-87-3	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Cyclohexane	110-82-7	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Dibromochloromethane	124-48-1	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Dichlorodifluoromethane	75-71-8	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Ethylbenzene	100-41-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Isopropylbenzene	98-82-8	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
M, P Xylenes	179601-23-1	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0039	J	0.0069	U
Methyl Acetate	79-20-9	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Methyl tert-Butyl Ether	1634-04-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Methylcyclohexane	108-87-2	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Methylene Chloride	75-09-2	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0009	J	0.0056	U	0.0037	U	0.0042	U	0.002	J	0.0069	U
Styrene	100-42-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Tetrachloroethene (PCE)	127-18-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Toluene	108-88-3	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Trichloroethene (TCE)	79-01-6	mg/kg	J	0.0048		0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Trichlorofluoromethane	75-69-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
Vinyl Chloride	75-01-4	mg/kg	U	0.0045	U	0.0048	U	0.0072	U	0.0044	U	0.011	U	0.0049	U	0.0056	U	0.0037	U	0.0042	U	0.0057	U	0.0069	U
SVOCs																										
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U			
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	U			0.08	U			0.07	U			0.067	U			0.065	U			0.07	U			
1-methylnaphthalene	90-12-0	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U			
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U			
2,4,5-Trichlorophenol	95-95-4	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U			
2,4,6-Trichlorophenol	88-06-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U			
2,4-Dichlorophenol	120-83-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U			
2,4-Dimethylphenol	105-67-9	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U			
2,4-Dinitrophenol	51-28-5	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U			

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-06	SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06	
			Sample:	6-10-11	SB-BR-06-10-11-2		SB-BR-06-22-23		SB-BR-06-22-23-2		SB-BR-06-34-35		SB-BR-06-34-35-2		SB-BR-06-49-50		SB-BR-06-49-50-2		SB-BR-06-59-60		SB-BR-06-59-60-2		SB-BR-06-64-65		SB-BR-06-64-65-2	
			Start Depth (ft):	0	10		22		22		34		34		49		49		59		59		64		64	
			End Depth (ft):	1	11		23		23		35		35		50		50		60		60		65		65	
			Sample Date:	2023	1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023		1/3/2023	
Analyte	CAS	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2,4-Dinitrotoluene	121-14-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
2,6-Dinitrotoluene	606-20-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
2-Chloronaphthalene	91-58-7	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
2-Chlorophenol	95-57-8	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
2-Methylnaphthalene	91-57-6	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
2-Nitroaniline	88-74-4	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
2-Nitrophenol	88-75-5	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
3-Nitroaniline	99-09-2	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
4-Chloro-3-Methylphenol	59-50-7	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
4-Chloroaniline	106-47-8	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
4-Nitroaniline	100-01-6	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
4-Nitrophenol	100-02-7	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Acenaphthene	83-32-9	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Acenaphthylene	208-96-8	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Acetophenone	98-86-2	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Anthracene	120-12-7	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Atrazine	1912-24-9	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Benzaldehyde	100-52-7	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Benzo(a)anthracene	56-55-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Benzo(a)pyrene	50-32-8	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Benzo(b)fluoranthene	205-99-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Benzo(g,h,i)perylene	191-24-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Benzo(k)fluoranthene	207-08-9	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Benzyl Butyl Phthalate	85-68-7	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Biphenyl (Diphenyl)	92-52-4	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.21			
Caprolactam	105-60-2	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Carbazole	86-74-8	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Chrysene	218-01-9	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Dibenz(a,h)anthracene	53-70-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Dibenzofuran	132-64-9	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Diethyl Phthalate	84-66-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Dimethyl Phthalate	131-11-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Di-N-Butyl Phthalate	84-74-2	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Di-N-Octylphthalate	117-84-0	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Fluoranthene	206-44-0	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Fluorene	86-73-7	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Hexachlorobenzene	118-74-1	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Hexachlorobutadiene	87-68-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Hexachlorocyclopentadiene	77-47-4	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Hexachloroethane	67-72-1	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Isophorone	78-59-1	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Naphthalene	91-20-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Nitrobenzene	98-95-3	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Pentachlorophenol	87-86-5	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Phenanthrene	85-01-8	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Phenol	108-95-2	mg/kg	U			0.39	U			0.34	U			0.33	U			0.32	U			0.34	U		
Pyrene	129-00-0	mg/kg	U			0.2	U			0.18	U			0.17	U			0.16	U			0.18	U		
Parameters																									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																							
Solids, Percent	SOLID	%																							
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																							

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-B
			Sample:	SB-BR-07-19-20		SB-BR-07-19-20-2		SB-BR-07-29-30		SB-BR-07-29-30-2		SB-BR-07-39-40		SB-BR-07-39-40-2		SB-BR-07-43-44		SB-BR-07-43-44-2		SB-BR-07-59-60		SB-BR-07-59-60-2		SB-BR-07-65-66		SB-BR-07		SB-BR-07		SB-BR-07
			Start Depth (ft):	19		19		29		29		39		39		43		43		59		59		65		6		6		6
			End Depth (ft):	20		20		30		30		40		40		44		44		60		60		66		6		6		6
			Sample Date:	1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
VOCs																												
1,1,1-Trichloroethane	71-55-6	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,1,2-Trichloroethane	79-00-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,1-Dichloroethane	75-34-3	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,1-Dichloroethene	75-35-4	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2,3-Trichloropropane	96-18-4	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0052	UJ	0.0044	UJ	0.0018	J	0.0011	J	0.0059	U	0.0054	U	0.0034	J	0.003	J	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2-Dibromoethane	106-93-4	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2-Dichlorobenzene	95-50-1	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2-Dichloroethane	107-06-2	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,2-Dichloropropane	78-87-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0013	J	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,3-Dichlorobenzene	541-73-1	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
1,4-Dichlorobenzene	106-46-7	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
2-Butanone	78-93-3	mg/kg	0.01	U	0.0087	U	0.01	U	0.011	U	0.012	U	0.011	U	0.0074	U	0.015	U	0.01	U	0.015	U	0.011	U	0.0093			
2-Hexanone	591-78-6	mg/kg	0.01	U	0.0087	U	0.01	U	0.011	U	0.012	U	0.011	U	0.0074	U	0.015	U	0.01	U	0.015	U	0.011	U	0.0093			
4-Methyl-2-Pentanone	108-10-1	mg/kg	0.01	U	0.0087	U	0.01	U	0.011	U	0.012	U	0.011	U	0.0074	U	0.015	U	0.01	U	0.015	UJ	0.011	U	0.0093			
Acetone	67-64-1	mg/kg	0.01	U	0.0087	U	0.01	U	0.011	U	0.012	U	0.011	U	0.0074	U	0.015	U	0.01	U	0.015	U	0.011	U	0.0093			
Benzene	71-43-2	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Bromochloromethane	74-97-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Bromodichloromethane	75-27-4	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Bromoform	75-25-2	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Bromomethane	74-83-9	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Carbon Disulfide	75-15-0	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Carbon Tetrachloride	56-23-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Chlorobenzene	108-90-7	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Chloroethane	75-00-3	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Chloroform	67-66-3	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Chloromethane	74-87-3	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.004		0.0051	J	0.0015	J	0.0056	J	0.006		0.0048			
cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Cyclohexane	110-82-7	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Dibromochloromethane	124-48-1	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Dichlorodifluoromethane	75-71-8	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Ethylbenzene	100-41-4	mg/kg	0.00092	J	0.0044	U	0.0011	J	0.0057	U	0.0059	U	0.0054	U	0.0034	J	0.0035	J	0.0052	U	0.0077	U	0.0057	U	0.0047			
Isopropylbenzene	98-82-8	mg/kg	0.0052	UJ	0.0044	UJ	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
M, P Xylenes	179601-23-1	mg/kg	0.0038	J	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0068		0.0065	J	0.0052	U	0.0077	U	0.0057	U	0.0047			
Methyl Acetate	79-20-9	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Methyl tert-Butyl Ether	1634-04-4	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Methylcyclohexane	108-87-2	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Methylene Chloride	75-09-2	mg/kg	0.0031	J	0.0044	U	0.0052	U	0.0057	U	0.0029	J	0.0027	J	0.0037	U	0.0073	U	0.0026	J	0.0077	U	0.0057	U	0.0047			
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	0.0021	J	0.0044	U	0.0013	J	0.0057	U	0.0059	U	0.0054	U	0.005		0.0045	J	0.0052	U	0.0077	U	0.0057	U	0.0047			
Styrene	100-42-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0029	J	0.0027	J	0.0052	U	0.0077	U	0.0057	U	0.0047			
Tetrachloroethene (PCE)	127-18-4	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Toluene	108-88-3	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0052		0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Trichloroethene (TCE)	79-01-6	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0015	J	0.0043	J	0.0032	J	0.003			
Trichlorofluoromethane	75-69-4	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
Vinyl Chloride	75-01-4	mg/kg	0.0052	U	0.0044	U	0.0052	U	0.0057	U	0.0059	U	0.0054	U	0.0037	U	0.0073	U	0.0052	U	0.0077	U	0.0057	U	0.0047			
SVOCs																												
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	0.76	U			0.084	U			0.077	U			0.081	U			0.084	U			0.079	U	0.078			
1-methylnaphthalene	90-12-0	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2,4,5-Trichlorophenol	95-95-4	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2,4,6-Trichlorophenol	88-06-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2,4-Dichlorophenol	120-83-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2,4-Dimethylphenol	105-67-9	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2,4-Dinitrophenol	51-28-5	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-B
			Sample:	SB-BR-07-19-20		SB-BR-07-19-20-2		SB-BR-07-29-30		SB-BR-07-29-30-2		SB-BR-07-39-40		SB-BR-07-39-40-2		SB-BR-07-43-44		SB-BR-07-43-44-2		SB-BR-07-59-60		SB-BR-07-59-60-2		SB-BR-07-65-66		SB-BR-07		SB-BR-07		SB-BR-07
			Start Depth (ft):	19		19		29		29		39		39		43		43		59		59		65		6		6		6
			End Depth (ft):	20		20		30		30		40		40		44		44		60		60		66		6		6		6
			Sample Date:	1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/2023		1/6/		1/6/
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2,4-Dinitrotoluene	121-14-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2,6-Dinitrotoluene	606-20-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2-Chloronaphthalene	91-58-7	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2-Chlorophenol	95-57-8	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2-Methylnaphthalene	91-57-6	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
2-Nitroaniline	88-74-4	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
2-Nitrophenol	88-75-5	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
3,3'-Dichlorobenzidine	91-94-1	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
3-Nitroaniline	99-09-2	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
4-Chloro-3-Methylphenol	59-50-7	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
4-Chloroaniline	106-47-8	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
4-Nitroaniline	100-01-6	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
4-Nitrophenol	100-02-7	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Acenaphthene	83-32-9	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Acenaphthylene	208-96-8	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Acetophenone	98-86-2	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Anthracene	120-12-7	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Atrazine	1912-24-9	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Benzaldehyde	100-52-7	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Benzo(a)anthracene	56-55-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Benzo(a)pyrene	50-32-8	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Benzo(b)fluoranthene	205-99-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Benzo(g,h,i)perylene	191-24-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Benzo(k)fluoranthene	207-08-9	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Benzyl Butyl Phthalate	85-68-7	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Biphenyl (Diphenyl)	92-52-4	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Caprolactam	105-60-2	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Carbazole	86-74-8	mg/kg	3.7	U			0.26	J			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Chrysene	218-01-9	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Dibenz(a,h)anthracene	53-70-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Dibenzofuran	132-64-9	mg/kg	1.9	U			0.53				0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Diethyl Phthalate	84-66-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Dimethyl Phthalate	131-11-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Di-N-Butyl Phthalate	84-74-2	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Di-N-Octylphthalate	117-84-0	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Fluoranthene	206-44-0	mg/kg	2.3				0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Fluorene	86-73-7	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Hexachlorobenzene	118-74-1	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Hexachlorobutadiene	87-68-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Hexachlorocyclopentadiene	77-47-4	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Hexachloroethane	67-72-1	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Isophorone	78-59-1	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Naphthalene	91-20-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Nitrobenzene	98-95-3	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
N-Nitrosodiphenylamine	86-30-6	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Pentachlorophenol	87-86-5	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Phenanthrene	85-01-8	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Phenol	108-95-2	mg/kg	3.7	U			0.41	U			0.38	U			0.4	U			0.41	U			0.39	U	0.39			
Pyrene	129-00-0	mg/kg	1.9	U			0.21	U			0.2	U			0.21	U			0.21	U			0.2	U	0.2			
Parameters																												
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																										
Solids, Percent	SOLID	%																										
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																										

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-07	SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10	
			Sample:	'-65-66-1	SB-BR-07-65-66-2		SB-BR-07-65-66-2-1		SB-BR-07-79-80		SB-BR-07-79-80-2		SB-BR-10-12-13		SB-BR-10-24-25		SB-BR-10-37-38		SB-BR-10-37-38-1		SB-BR-10-47-48		SB-BR-10-57-58		SB-BR-10-77-78	
			Start Depth (ft):	5	65		65		79		79		12		24		37		37		47		57		77	
			End Depth (ft):	6	66		66		80		80		13		25		38		38		48		58		78	
			Sample Date:	2023	1/6/2023		1/6/2023		1/6/2023		1/6/2023		11/4/2022		11/4/2022		11/4/2022		11/4/2022		11/4/2022		11/4/2022		11/4/2022	
Analyte	**CAS**	**Unit**		**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
VOCs																										
1,1,1-Trichloroethane	71-55-6	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,1,2-Trichloroethane	79-00-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,1-Dichloroethane	75-34-3	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.0014	J
1,1-Dichloroethene	75-35-4	mg/kg		U	0.0045	U	0.00076	J	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		U	0.0045	U	0.0046	UJ	0.005	U	0.0052	UJ	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2,3-Trichloropropane	96-18-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		U	0.0045	U	0.0046	UJ	0.005	U	0.0052	UJ	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2,4-Trimethylbenzene	95-63-6	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2-Dibromoethane	106-93-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2-Dichlorobenzene	95-50-1	mg/kg		U	0.0045	U	0.0046	UJ	0.005	U	0.0052	UJ	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2-Dichloroethane	107-06-2	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,2-Dichloropropane	78-87-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,3-Dichlorobenzene	541-73-1	mg/kg		U	0.0045	U	0.0046	UJ	0.005	U	0.0052	UJ	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
1,4-Dichlorobenzene	106-46-7	mg/kg		U	0.0045	U	0.0046	UJ	0.005	U	0.0052	UJ	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
2-Butanone	78-93-3	mg/kg		U	0.0089	U	0.0091	U	0.01	U	0.01	U	0.011	U	0.012	U	0.67	U	0.012	U	0.011	U	0.011	U	0.012	U
2-Hexanone	591-78-6	mg/kg		U	0.0089	U	0.0091	U	0.01	U	0.01	U	0.011	U	0.012	U	0.67	U	0.012	U	0.011	U	0.011	U	0.012	U
4-Methyl-2-Pentanone	108-10-1	mg/kg		U	0.0089	U	0.0091	U	0.01	U	0.01	U	0.011	U	0.012	U	0.67	U	0.012	U	0.011	U	0.011	U	0.012	U
Acetone	67-64-1	mg/kg		U	0.0089	U	0.0091	U	0.01	U	0.01	U	0.011	U	0.012	U	0.67	U	0.012	U	0.011	U	0.011	U	0.012	U
Benzene	71-43-2	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059		0.0032	J	0.0056	U	0.006	U
Bromochloromethane	74-97-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Bromodichloromethane	75-27-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Bromoform	75-25-2	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Bromomethane	74-83-9	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U		R	0.0059	U	0.0057	U	0.0056	U	0.006	U
Carbon Disulfide	75-15-0	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U		R	0.0059	U	0.0057	U	0.0056	U	0.006	U
Carbon Tetrachloride	56-23-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Chlorobenzene	108-90-7	mg/kg		U	0.0045	U	0.0046	UJ	0.005	U	0.0052	UJ	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Chloroethane	75-00-3	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U		R	0.0059	U	0.0057	U	0.0056	U	0.006	U
Chloroform	67-66-3	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Chloromethane	74-87-3	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U		R	0.0059	U	0.0057	U	0.0056	U	0.006	U
cis-1,2-Dichloroethene	156-59-2	mg/kg			0.0087		0.006		0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.015		0.0082		0.0034	J	0.0059	J
cis-1,3-Dichloropropene	10061-01-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Cyclohexane	110-82-7	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Dibromochloromethane	124-48-1	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Dichlorodifluoromethane	75-71-8	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U		R	0.0059	U	0.0057	U	0.0056	U	0.006	U
Ethylbenzene	100-41-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.006		0.0025	J	0.0056	U	0.006	U
Isopropylbenzene	98-82-8	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
M, P Xylenes	179601-23-1	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0053	J	0.0018	J	0.0056	U	0.006	U
Methyl Acetate	79-20-9	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Methyl tert-Butyl Ether	1634-04-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Methylcyclohexane	108-87-2	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Methylene Chloride	75-09-2	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0071		0.0057	U	0.0056	U	0.006	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Styrene	100-42-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0025	J	0.0057	U	0.0056	U	0.006	U
Tetrachloroethene (PCE)	127-18-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Toluene	108-88-3	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.005	J	0.0015	J	0.0056	U	0.006	U
trans-1,2-Dichloroethene	156-60-5	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Trichloroethene (TCE)	79-01-6	mg/kg		J	0.0053		0.003	J	0.0012	J	0.0019	J	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0034	J	0.0058	J
Trichlorofluoromethane	75-69-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
Vinyl Chloride	75-01-4	mg/kg		U	0.0045	U	0.0046	U	0.005	U	0.0052	U	0.0057	U	0.0059	U	0.33	U	0.0059	U	0.0057	U	0.0056	U	0.006	U
SVOCs																										
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg		U					0.074	U			0.078	U	0.081	U	0.082	U	0.083	U	0.082	U	0.079	U	0.078	U
1-methylnaphthalene	90-12-0	mg/kg		U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2,4-Dichlorophenol	120-83-2	mg/kg		U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2,4-Dimethylphenol	105-67-9	mg/kg		U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2,4-Dinitrophenol	51-28-5	mg/kg		U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-07	SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10	
			Sample:	'-65-66-1	SB-BR-07-65-66-2		SB-BR-07-65-66-2-1		SB-BR-07-79-80		SB-BR-07-79-80-2		SB-BR-10-12-13		SB-BR-10-24-25		SB-BR-10-37-38		SB-BR-10-37-38-1		SB-BR-10-47-48		SB-BR-10-57-58		SB-BR-10-77-78	
			Start Depth (ft):	5	65		65		79		79		12		24		37		37		47		57		77	
			End Depth (ft):	6	66		66		80		80		13		25		38		38		48		58		78	
			Sample Date:	2023	1/6/2023		1/6/2023		1/6/2023		1/6/2023		11/4/2022		11/4/2022		11/4/2022		11/4/2022		11/4/2022		11/4/2022		11/4/2022	
Analyte	**CAS**	**Unit**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
2,4-Dinitrotoluene	121-14-2	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2,6-Dinitrotoluene	606-20-2	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2-Chloronaphthalene	91-58-7	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2-Chlorophenol	95-57-8	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2-Methylnaphthalene	91-57-6	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
2-Nitroaniline	88-74-4	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
2-Nitrophenol	88-75-5	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
3-Nitroaniline	99-09-2	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
4-Chloro-3-Methylphenol	59-50-7	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
4-Chloroaniline	106-47-8	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
4-Nitroaniline	100-01-6	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
4-Nitrophenol	100-02-7	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Acenaphthene	83-32-9	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Acenaphthylene	208-96-8	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Acetophenone	98-86-2	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Anthracene	120-12-7	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Atrazine	1912-24-9	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Benzaldehyde	100-52-7	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Benzo(a)anthracene	56-55-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Benzo(a)pyrene	50-32-8	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Benzo(b)fluoranthene	205-99-2	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Benzo(k)fluoranthene	207-08-9	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Benzyl Butyl Phthalate	85-68-7	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Biphenyl (Diphenyl)	92-52-4	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Caprolactam	105-60-2	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Carbazole	86-74-8	mg/kg	U					0.36	U			0.38	U	0.4	U	0.092	J	0.087	J	0.4	U	0.39	U	0.39	U
Chrysene	218-01-9	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Dibenz(a,h)anthracene	53-70-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Dibenzofuran	132-64-9	mg/kg	U					0.19	U			0.2	U	0.21	U	0.16	J	0.12	J	0.21	U	0.2	U	0.2	U
Diethyl Phthalate	84-66-2	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Dimethyl Phthalate	131-11-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Di-N-Butyl Phthalate	84-74-2	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Di-N-Octylphthalate	117-84-0	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Fluoranthene	206-44-0	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Fluorene	86-73-7	mg/kg	U					0.19	U			0.2	U	0.21	U	0.074	J	0.073	J	0.21	U	0.2	U	0.2	U
Hexachlorobenzene	118-74-1	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Hexachlorobutadiene	87-68-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Hexachlorocyclopentadiene	77-47-4	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Hexachloroethane	67-72-1	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Isophorone	78-59-1	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Naphthalene	91-20-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.13	J	0.12	J	0.21	U	0.2	U	0.2	U
Nitrobenzene	98-95-3	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	U					0.19	U			0.13	J	0.21	U	0.17	J	0.12	J	0.16	J	0.14	J	0.2	U
N-Nitrosodiphenylamine	86-30-6	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Pentachlorophenol	87-86-5	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Phenanthrene	85-01-8	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Phenol	108-95-2	mg/kg	U					0.36	U			0.38	U	0.4	U	0.4	U	0.41	U	0.4	U	0.39	U	0.39	U
Pyrene	129-00-0	mg/kg	U					0.19	U			0.2	U	0.21	U	0.21	U	0.21	U	0.21	U	0.2	U	0.2	U
Parameters																									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg														267	U								
Solids, Percent	SOLID	%														74.9									
TPH, HEM-SGT	TPHNONPOLAR	mg/kg														267	U								

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-10		SB-BR-10		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-B	
			Sample:	SB-BR-10-96-97		SB-BR-10-109-110		SB-BR-11-15-16		SB-BR-11-15-16-2		SB-BR-11-23-24		SB-BR-11-23-24-2		SB-BR-11-43-44		SB-BR-11-43-44-1		SB-BR-11-43-44-2		SB-BR-11-43-44-2-1		SB-BR-11-53-54		SB-BR-11		
			Start Depth (ft):	96		109		15		15		23		23		43		43		43		43		53		5		
			End Depth (ft):	97		110		16		16		24		24		44		44		44		44		54		5		
			Sample Date:	11/4/2022		11/4/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6	
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
VOCs																										
1,1,1-Trichloroethane	71-55-6	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,1,2-Trichloroethane	79-00-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,1-Dichloroethane	75-34-3	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,1-Dichloroethene	75-35-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2,3-Trichloropropane	96-18-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2-Dibromoethane	106-93-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2-Dichlorobenzene	95-50-1	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2-Dichloroethane	107-06-2	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,2-Dichloropropane	78-87-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,3-Dichlorobenzene	541-73-1	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
1,4-Dichlorobenzene	106-46-7	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
2-Butanone	78-93-3	mg/kg	0.011	U	0.011	U	0.011	U	0.009	U	0.012	U	0.015	U	0.011	U	0.012	U	0.011	U	0.013	U	0.012	U	0.012	
2-Hexanone	591-78-6	mg/kg	0.011	U	0.011	U	0.011	U	0.009	U	0.012	U	0.015	U	0.011	U	0.012	U	0.011	U	0.013	U	0.012	U	0.012	
4-Methyl-2-Pentanone	108-10-1	mg/kg	0.011	U	0.011	U	0.011	U	0.009	U	0.012	U	0.015	U	0.011	U	0.012	U	0.011	U	0.013	U	0.012	U	0.012	
Acetone	67-64-1	mg/kg	0.011	U	0.011	U	0.011	U	0.009	U	0.012	U	0.015	U	0.011	U	0.012	U	0.011	U	0.013	U	0.012	U	0.012	
Benzene	71-43-2	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Bromochloromethane	74-97-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Bromodichloromethane	75-27-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Bromoform	75-25-2	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Bromomethane	74-83-9	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Carbon Disulfide	75-15-0	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Carbon Tetrachloride	56-23-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Chlorobenzene	108-90-7	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Chloroethane	75-00-3	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Chloroform	67-66-3	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Chloromethane	74-87-3	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.002	J	0.0079		0.0071	
cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Cyclohexane	110-82-7	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Dibromochloromethane	124-48-1	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Dichlorodifluoromethane	75-71-8	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Ethylbenzene	100-41-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Isopropylbenzene	98-82-8	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.002	J	0.0061	
M, P Xylenes	179601-23-1	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Methyl Acetate	79-20-9	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Methyl tert-Butyl Ether	1634-04-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Methylcyclohexane	108-87-2	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Methylene Chloride	75-09-2	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Styrene	100-42-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Tetrachloroethene (PCE)	127-18-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Toluene	108-88-3	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Trichloroethene (TCE)	79-01-6	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Trichlorofluoromethane	75-69-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
Vinyl Chloride	75-01-4	mg/kg	0.0056	U	0.0056	U	0.0055	U	0.0045	U	0.0062	U	0.0077	U	0.0055	U	0.006	U	0.0053	U	0.0064	U	0.0058	U	0.0061	
SVOCs																										
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	0.18	U	0.2	U	0.19	U			0.19	U			0.19	U	0.19	U					0.19	U		
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	0.073	UJ		R	0.073	U			0.076	U			0.075	U	0.075	U					0.075	U		
1-methylnaphthalene	90-12-0	mg/kg	0.18	U	0.2	U	0.19	U			0.19	U			0.19	U	0.19	U					0.19	U		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	0.18	U	0.2	U	0.19	U			0.19	U			0.19	U	0.19	U					0.19	U		
2,4,5-Trichlorophenol	95-95-4	mg/kg	0.18	U	0.2	U	0.19	U			0.19	U			0.19	U	0.19	U					0.19	U		
2,4,6-Trichlorophenol	88-06-2	mg/kg	0.18	U	0.2	U	0.19	U			0.19	U			0.19	U	0.19	U					0.19	U		
2,4-Dichlorophenol	120-83-2	mg/kg	0.18	U	0.2	U	0.19	U			0.19	U			0.19	U	0.19	U					0.19	U		
2,4-Dimethylphenol	105-67-9	mg/kg	0.18	U	0.2	U	0.19	U			0.19	U			0.19	U	0.19	U					0.19	U		
2,4-Dinitrophenol	51-28-5	mg/kg	0.36	U	0.38	U	0.36	U			0.38	U			0.37	U	0.37	U					0.37	U		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-10		SB-BR-10		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-B
			Sample:	SB-BR-10-96-97		SB-BR-10-109-110		SB-BR-11-15-16		SB-BR-11-15-16-2		SB-BR-11-23-24		SB-BR-11-23-24-2		SB-BR-11-43-44		SB-BR-11-43-44-1		SB-BR-11-43-44-2		SB-BR-11-43-44-2-1		SB-BR-11-53-54		SB-BR-11		SB-BR-11		SB-BR-11
			Start Depth (ft):	96		109		15		15		23		23		43		43		43		43		53		5		5		12/6
			End Depth (ft):	97		110		16		16		24		24		44		44		44		44		54		5		5		
			Sample Date:	11/4/2022		11/4/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/6/2022		
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
2,4-Dinitrotoluene	121-14-2	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
2,6-Dinitrotoluene	606-20-2	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
2-Chloronaphthalene	91-58-7	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
2-Chlorophenol	95-57-8	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
2-Methylnaphthalene	91-57-6	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
2-Nitroaniline	88-74-4	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
2-Nitrophenol	88-75-5	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
3,3'-Dichlorobenzidine	91-94-1	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
3-Nitroaniline	99-09-2	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
4-Chloro-3-Methylphenol	59-50-7	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
4-Chloroaniline	106-47-8	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
4-Nitroaniline	100-01-6	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
4-Nitrophenol	100-02-7	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Acenaphthene	83-32-9	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Acenaphthylene	208-96-8	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Acetophenone	98-86-2	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Anthracene	120-12-7	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Atrazine	1912-24-9	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Benzaldehyde	100-52-7	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Benzo(a)anthracene	56-55-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Benzo(a)pyrene	50-32-8	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Benzo(b)fluoranthene	205-99-2	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Benzo(g,h,i)perylene	191-24-2	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Benzo(k)fluoranthene	207-08-9	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Benzyl Butyl Phthalate	85-68-7	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Biphenyl (Diphenyl)	92-52-4	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Caprolactam	105-60-2	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Carbazole	86-74-8	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Chrysene	218-01-9	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Dibenz(a,h)anthracene	53-70-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Dibenzofuran	132-64-9	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Diethyl Phthalate	84-66-2	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Dimethyl Phthalate	131-11-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Di-N-Butyl Phthalate	84-74-2	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Di-N-Octylphthalate	117-84-0	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Fluoranthene	206-44-0	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Fluorene	86-73-7	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Hexachlorobenzene	118-74-1	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Hexachlorobutadiene	87-68-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Hexachlorocyclopentadiene	77-47-4	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Hexachloroethane	67-72-1	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Isophorone	78-59-1	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Naphthalene	91-20-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Nitrobenzene	98-95-3	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
N-Nitrosodiphenylamine	86-30-6	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Pentachlorophenol	87-86-5	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Phenanthrene	85-01-8	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Phenol	108-95-2	mg/kg	*0.36*	*U*	*0.38*	*U*	*0.36*	*U*			*0.38*	*U*			*0.37*	*U*	*0.37*	*U*					*0.37*	*U*					
Pyrene	129-00-0	mg/kg	*0.18*	*U*	*0.2*	*U*	*0.19*	*U*			*0.19*	*U*			*0.19*	*U*	*0.19*	*U*					*0.19*	*U*					
Parameters																													
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg													*252*	*U*													
Solids, Percent	SOLID	%													79.4														
TPH, HEM-SGT	TPHNONPOLAR	mg/kg													*252*	*U*													

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-11	SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12	
			Sample:	-53-54-2	SB-BR-11-63-64		SB-BR-11-63-64-2		SB-BR-11-70-71		SB-BR-11-70-71-2		SB-BR-11-101-102		SB-BR-11-101-102-2		SB-BR-12-09-10		SB-BR-12-19-20		SB-BR-12-39-40		SB-BR-12-49-50		SB-BR-12-59-60	
			Start Depth (ft):	3	63		63		70		70		101		101		9		19		39		49		59	
			End Depth (ft):	4	64		64		71		71		102		102		10		20		40		50		60	
			Sample Date:	2022	12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/7/2022		12/7/2022		11/9/2022		11/9/2022		11/9/2022		11/9/2022		11/9/2022	
Analyte	CAS	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,1,2-Trichloroethane	79-00-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,1-Dichloroethane	75-34-3	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,1-Dichloroethene	75-35-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2,3-Trichloropropane	96-18-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2,4-Trimethylbenzene	95-63-6	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	UJ	0.0047	UJ	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2-Dibromoethane	106-93-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2-Dichlorobenzene	95-50-1	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2-Dichloroethane	107-06-2	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,2-Dichloropropane	78-87-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,3-Dichlorobenzene	541-73-1	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
1,4-Dichlorobenzene	106-46-7	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
2-Butanone	78-93-3	mg/kg	U	0.011	U	0.012	U	0.011	U	0.013	U	0.011	U	0.0093	U	0.01	U	0.011	U	0.0069	U	0.0087	U	0.0088	U
2-Hexanone	591-78-6	mg/kg	U	0.011	U	0.012	U	0.011	U	0.013	U	0.011	U	0.0093	U	0.01	U	0.011	U	0.0069	U	0.0087	U	0.0088	U
4-Methyl-2-Pentanone	108-10-1	mg/kg	U	0.011	U	0.012	U	0.011	U	0.013	U	0.011	UJ	0.0093	UJ	0.01	U	0.011	U	0.0069	U	0.0087	U	0.0088	U
Acetone	67-64-1	mg/kg	U	0.011	U	0.012	U	0.011	U	0.013	U	0.011	U	0.0093	U	0.01	U	0.011	U	0.0069	U	0.0087	U	0.0088	U
Benzene	71-43-2	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Bromochloromethane	74-97-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Bromodichloromethane	75-27-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Bromoform	75-25-2	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Bromomethane	74-83-9	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Carbon Disulfide	75-15-0	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Carbon Tetrachloride	56-23-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Chlorobenzene	108-90-7	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Chloroethane	75-00-3	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Chloroform	67-66-3	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Chloromethane	74-87-3	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
cis-1,2-Dichloroethene	156-59-2	mg/kg		0.0056	U	0.0055	J	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Cyclohexane	110-82-7	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Dibromochloromethane	124-48-1	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Dichlorodifluoromethane	75-71-8	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Ethylbenzene	100-41-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Isopropylbenzene	98-82-8	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
M, P Xylenes	179601-23-1	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Methyl Acetate	79-20-9	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Methyl tert-Butyl Ether	1634-04-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Methylcyclohexane	108-87-2	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Methylene Chloride	75-09-2	mg/kg	U	0.0027	J	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Styrene	100-42-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Tetrachloroethene (PCE)	127-18-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Toluene	108-88-3	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Trichloroethene (TCE)	79-01-6	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0042	J	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Trichlorofluoromethane	75-69-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
Vinyl Chloride	75-01-4	mg/kg	U	0.0056	U	0.0062	U	0.0056	U	0.0064	U	0.0053	U	0.0047	U	0.0051	U	0.0053	U	0.0035	U	0.0044	U	0.0044	U
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg		0.071	U			0.077	U			0.064	UJ			0.077	UJ	0.062	U	0.081	UJ	0.079	U	0.076	U
1-methylnaphthalene	90-12-0	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-11	SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12	
			Sample:	-53-54-2	SB-BR-11-63-64		SB-BR-11-63-64-2		SB-BR-11-70-71		SB-BR-11-70-71-2		SB-BR-11-101-102		SB-BR-11-101-102-2		SB-BR-12-09-10		SB-BR-12-19-20		SB-BR-12-39-40		SB-BR-12-49-50		SB-BR-12-59-60	
			Start Depth (ft):	3	63		63		70		70		101		101		9		19		39		49		59	
			End Depth (ft):	4	64		64		71		71		102		102		10		20		40		50		60	
			Sample Date:	2022	12/6/2022		12/6/2022		12/6/2022		12/6/2022		12/7/2022		12/7/2022		11/9/2022		11/9/2022		11/9/2022		11/9/2022		11/9/2022	
Analyte	**CAS**	**Unit**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
2,4-Dinitrotoluene	121-14-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2-Chloronaphthalene	91-58-7	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2-Chlorophenol	95-57-8	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2-Methylnaphthalene	91-57-6	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2-Methylphenol (O-Cresol)	95-48-7	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
2-Nitroaniline	88-74-4	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
2-Nitrophenol	88-75-5	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
3-Nitroaniline	99-09-2	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
4-Chloro-3-Methylphenol	59-50-7	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
4-Chloroaniline	106-47-8	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
4-Methylphenol (P-Cresol)	106-44-5	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
4-Nitroaniline	100-01-6	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
4-Nitrophenol	100-02-7	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Acenaphthene	83-32-9	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Acenaphthylene	208-96-8	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Acetophenone	98-86-2	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Anthracene	120-12-7	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Atrazine	1912-24-9	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Benzaldehyde	100-52-7	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Benzo(a)anthracene	56-55-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Benzo(a)pyrene	50-32-8	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Benzo(b)fluoranthene	205-99-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Benzo(g,h,i)perylene	191-24-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Benzo(k)fluoranthene	207-08-9	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Benzyl Butyl Phthalate	85-68-7	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Biphenyl (Diphenyl)	92-52-4	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Caprolactam	105-60-2	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Carbazole	86-74-8	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Chrysene	218-01-9	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Dibenz(a,h)anthracene	53-70-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Dibenzofuran	132-64-9	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Diethyl Phthalate	84-66-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Dimethyl Phthalate	131-11-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Di-N-Butyl Phthalate	84-74-2	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Di-N-Octylphthalate	117-84-0	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Fluoranthene	206-44-0	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Fluorene	86-73-7	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Hexachlorobenzene	118-74-1	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Hexachlorobutadiene	87-68-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Hexachloroethane	67-72-1	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Isophorone	78-59-1	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Naphthalene	91-20-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Nitrobenzene	98-95-3	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Pentachlorophenol	87-86-5	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Phenanthrene	85-01-8	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Phenol	108-95-2	mg/kg		0.35	U			0.38	U			0.31	U			0.38	U	0.31	U	0.4	U	0.39	U	0.37	U
Pyrene	129-00-0	mg/kg		0.18	U			0.2	U			0.16	U			0.2	U	0.16	U	0.21	U	0.2	U	0.19	U
Parameters																									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																							
Solids, Percent	SOLID	%																							
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																							

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

	Location:	SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-B
	Sample:	SB-BR-12-69-70		SB-BR-12-79-80		SB-BR-12-89-90		SB-BR-12-99-100		SB-BR-12-114-115		SB-BR-13-09-10		SB-BR-13-09-10-2		SB-BR-13-19-20		SB-BR-13-19-20-2		SB-BR-13-29-30		SB-BR-13-29-30-2		SB-BR-1
	Start Depth (ft):	69		79		89		99		114		9		9		19		19		29		29		3
	End Depth (ft):	70		80		90		100		115		10		10		20		20		30		30		4
	Sample Date:	11/9/2022		11/9/2022		11/9/2022		11/9/2022		11/9/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,1,2-Trichloroethane	79-00-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,1-Dichloroethane	75-34-3	mg/kg	*0.0044*	*U*	*0.005*	*U*	0.0012	J	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,1-Dichloroethene	75-35-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2,3-Trichlorobenzene	87-61-6	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2,3-Trichloropropane	96-18-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2,4-Trichlorobenzene	120-82-1	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2,4-Trimethylbenzene	95-63-6	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2-Dibromoethane	106-93-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2-Dichlorobenzene	95-50-1	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2-Dichloroethane	107-06-2	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,2-Dichloropropane	78-87-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,3-Dichlorobenzene	541-73-1	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
1,4-Dichlorobenzene	106-46-7	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
2-Butanone	78-93-3	mg/kg	*0.0088*	*U*	*0.0099*	*U*	*0.011*	*U*	*0.01*	*U*	*0.0071*	*U*	*0.011*	*U*	0.024		*0.01*	*U*	*0.01*	*U*	*0.01*	*U*	*0.012*	*U*	*0.0093*
2-Hexanone	591-78-6	mg/kg	*0.0088*	*U*	*0.0099*	*U*	*0.011*	*U*	*0.01*	*U*	*0.0071*	*U*	*0.011*	*U*	*0.011*	*U*	*0.01*	*U*	*0.01*	*U*	*0.01*	*U*	*0.012*	*U*	*0.0093*
4-Methyl-2-Pentanone	108-10-1	mg/kg	*0.0088*	*U*	*0.0099*	*U*	*0.011*	*U*	*0.01*	*U*	*0.0071*	*U*	*0.011*	*U*	*0.011*	*U*	*0.01*	*U*	*0.01*	*U*	*0.01*	*U*	*0.012*	*U*	*0.0093*
Acetone	67-64-1	mg/kg	*0.0088*	*U*	*0.0099*	*U*	*0.011*	*U*	*0.01*	*U*	*0.0071*	*U*	0.031		0.1		*0.01*	*U*	*0.01*	*U*	*0.01*	*U*	*0.012*	*U*	*0.0093*
Benzene	71-43-2	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Bromochloromethane	74-97-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Bromodichloromethane	75-27-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Bromoform	75-25-2	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Bromomethane	74-83-9	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Carbon Disulfide	75-15-0	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Carbon Tetrachloride	56-23-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Chlorobenzene	108-90-7	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Chloroethane	75-00-3	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Chloroform	67-66-3	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Chloromethane	74-87-3	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
cis-1,2-Dichloroethene	156-59-2	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
cis-1,3-Dichloropropene	10061-01-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Cyclohexane	110-82-7	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Dibromochloromethane	124-48-1	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Dichlorodifluoromethane	75-71-8	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Ethylbenzene	100-41-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Isopropylbenzene	98-82-8	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
M, P Xylenes	179601-23-1	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Methyl Acetate	79-20-9	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	0.013		*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Methyl tert-Butyl Ether	1634-04-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Methylcyclohexane	108-87-2	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Methylene Chloride	75-09-2	mg/kg	*0.0044*	*U*	0.0061		*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Styrene	100-42-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Tetrachloroethene (PCE)	127-18-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Toluene	108-88-3	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
trans-1,2-Dichloroethene	156-60-5	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
trans-1,3-Dichloropropene	10061-02-6	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Trichloroethene (TCE)	79-01-6	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Trichlorofluoromethane	75-69-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
Vinyl Chloride	75-01-4	mg/kg	*0.0044*	*U*	*0.005*	*U*	*0.0053*	*U*	*0.005*	*U*	*0.0036*	*U*	*0.0056*	*U*	*0.0057*	*U*	*0.0051*	*U*	*0.005*	*U*	*0.0051*	*U*	*0.0059*	*U*	*0.0047*
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	*0.19*	*U*	*0.18*	*U*	*0.2*	*U*	*0.16*	*U*	*0.18*	*U*	*0.18*	*U*			*0.18*	*U*			*0.19*	*U*			*0.18*
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	*0.074*	*U*	*0.07*	*U*	*0.077*	*U*	*0.064*	*UJ*	*0.07*	*U*	*0.072*	*U*			*0.07*	*U*			*0.077*	*U*			*0.07*
1-methylnaphthalene	90-12-0	mg/kg	*0.19*	*U*	*0.18*	*U*	*0.2*	*U*	*0.16*	*U*	*0.18*	*U*	*0.18*	*U*			*0.18*	*U*			*0.19*	*U*			*0.18*
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	*0.19*	*U*	*0.18*	*U*	*0.2*	*U*	*0.16*	*U*	*0.18*	*U*	*0.18*	*U*			*0.18*	*U*			*0.19*	*U*			*0.18*
2,4,5-Trichlorophenol	95-95-4	mg/kg	*0.19*	*U*	*0.18*	*U*	*0.2*	*U*	*0.16*	*U*	*0.18*	*U*	*0.18*	*U*			*0.18*	*U*			*0.19*	*U*			*0.18*
2,4,6-Trichlorophenol	88-06-2	mg/kg	*0.19*	*U*	*0.18*	*U*	*0.2*	*U*	*0.16*	*U*	*0.18*	*U*	*0.18*	*U*			*0.18*	*U*			*0.19*	*U*			*0.18*
2,4-Dichlorophenol	120-83-2	mg/kg	*0.19*	*U*	*0.18*	*U*	*0.2*	*U*	*0.16*	*U*	*0.18*	*U*	*0.18*	*U*			*0.18*	*U*			*0.19*	*U*			*0.18*
2,4-Dimethylphenol	105-67-9	mg/kg	*0.19*	*U*	*0.18*	*U*	*0.2*	*U*	*0.16*	*U*	*0.18*	*U*	*0.18*	*U*			*0.18*	*U*			*0.19*	*U*			*0.18*
2,4-Dinitrophenol	51-28-5	mg/kg	*0.36*	*U*	*0.35*	*U*	*0.38*	*U*	*0.31*	*U*	*0.35*	*U*	*0.35*	*U*			*0.35*	*U*			*0.38*	*U*			*0.35*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-12		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-B
			Sample:	SB-BR-12-69-70		SB-BR-12-79-80		SB-BR-12-89-90		SB-BR-12-99-100		SB-BR-12-114-115		SB-BR-13-09-10		SB-BR-13-09-10-2		SB-BR-13-19-20		SB-BR-13-19-20-2		SB-BR-13-29-30		SB-BR-13-29-30-2		SB-BR-1	
			Start Depth (ft):	69		79		89		99		114		9		10		19		19		29		29		3	
			End Depth (ft):	70		80		90		100		115		10		10		20		20		30		30		4	
			Sample Date:	11/9/2022		11/9/2022		11/9/2022		11/9/2022		11/9/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2,4-Dinitrotoluene	121-14-2	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
2,6-Dinitrotoluene	606-20-2	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
2-Chloronaphthalene	91-58-7	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
2-Chlorophenol	95-57-8	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
2-Methylnaphthalene	91-57-6	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
2-Nitroaniline	88-74-4	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
2-Nitrophenol	88-75-5	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
3,3'-Dichlorobenzidine	91-94-1	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
3-Nitroaniline	99-09-2	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
4-Chloro-3-Methylphenol	59-50-7	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
4-Chloroaniline	106-47-8	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
4-Nitroaniline	100-01-6	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
4-Nitrophenol	100-02-7	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Acenaphthene	83-32-9	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Acenaphthylene	208-96-8	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Acetophenone	98-86-2	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Anthracene	120-12-7	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Atrazine	1912-24-9	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Benzaldehyde	100-52-7	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Benzo(a)anthracene	56-55-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Benzo(a)pyrene	50-32-8	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Benzo(b)fluoranthene	205-99-2	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Benzo(k)fluoranthene	207-08-9	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Benzyl Butyl Phthalate	85-68-7	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Biphenyl (Diphenyl)	92-52-4	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Caprolactam	105-60-2	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Carbazole	86-74-8	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Chrysene	218-01-9	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Dibenz(a,h)anthracene	53-70-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Dibenzofuran	132-64-9	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Diethyl Phthalate	84-66-2	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Dimethyl Phthalate	131-11-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Di-N-Butyl Phthalate	84-74-2	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Di-N-Octylphthalate	117-84-0	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Fluoranthene	206-44-0	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Fluorene	86-73-7	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Hexachlorobenzene	118-74-1	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Hexachlorobutadiene	87-68-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Hexachlorocyclopentadiene	77-47-4	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Hexachloroethane	67-72-1	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Isophorone	78-59-1	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Naphthalene	91-20-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Nitrobenzene	98-95-3	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
N-Nitrosodiphenylamine	86-30-6	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Pentachlorophenol	87-86-5	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Phenanthrene	85-01-8	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Phenol	108-95-2	mg/kg	0.36	U	0.35	U	0.38	U	0.31	U	0.35	U	0.35	U			0.35	U			0.38	U			0.35
Pyrene	129-00-0	mg/kg	0.19	U	0.18	U	0.2	U	0.16	U	0.18	U	0.18	U			0.18	U			0.19	U			0.18
Parameters																										
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																								
Solids, Percent	SOLID	%																								
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																								

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-13	SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13	
			Sample:	3-39-40	SB-BR-13-39-40-2		SB-BR-13-49-50		SB-BR-13-49-50-2		SB-BR-13-59-60		SB-BR-13-59-60-2		SB-BR-13-69-70		SB-BR-13-69-70-2		SB-BR-13-79-80		SB-BR-13-79-80-2		SB-BR-13-89-90		SB-BR-13-89-90-2	
			Start Depth (ft):	9	39		49		49		59		59		69		69		79		79		89		89	
			End Depth (ft):	0	40		50		50		60		60		70		70		80		80		90		90	
			Sample Date:	/2022	11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022	
Analyte	CAS	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,1,2-Trichloroethane	79-00-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,1-Dichloroethane	75-34-3	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,1-Dichloroethene	75-35-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2,3-Trichloropropane	96-18-4	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2,4-Trimethylbenzene	95-63-6	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2-Dibromoethane	106-93-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2-Dichlorobenzene	95-50-1	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2-Dichloroethane	107-06-2	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,2-Dichloropropane	78-87-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,3-Dichlorobenzene	541-73-1	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
1,4-Dichlorobenzene	106-46-7	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
2-Butanone	78-93-3	mg/kg	U	0.01	U	0.0081	U	0.01	U	0.0067	U	0.011	U	0.0077	U	0.011	UJ	0.0097	U	0.012	U	0.007	U	0.012	U
2-Hexanone	591-78-6	mg/kg	U	0.01	U	0.0081	U	0.01	U	0.0067	U	0.011	U	0.0077	U	0.011	UJ	0.0097	U	0.012	U	0.007	U	0.012	U
4-Methyl-2-Pentanone	108-10-1	mg/kg	U	0.01	U	0.0081	U	0.01	U	0.0067	U	0.011	U	0.0077	U	0.011	UJ	0.0097	U	0.012	U	0.007	U	0.012	U
Acetone	67-64-1	mg/kg	U	0.01	U	0.0069	J	0.01	U	0.0069		0.011	U	0.0077	U	0.011	UJ	0.0097	U	0.012	U	0.007	U	0.012	U
Benzene	71-43-2	mg/kg	U	0.0051	U	0.0063		0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Bromochloromethane	74-97-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Bromodichloromethane	75-27-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Bromoform	75-25-2	mg/kg	UJ	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Bromomethane	74-83-9	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Carbon Disulfide	75-15-0	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Carbon Tetrachloride	56-23-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Chlorobenzene	108-90-7	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Chloroethane	75-00-3	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Chloroform	67-66-3	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Chloromethane	74-87-3	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	U	0.0051	U	0.015		0.013		0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0041		0.0044	J
cis-1,3-Dichloropropene	10061-01-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Cyclohexane	110-82-7	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Dibromochloromethane	124-48-1	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Dichlorodifluoromethane	75-71-8	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Ethylbenzene	100-41-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Isopropylbenzene	98-82-8	mg/kg	UJ	0.0051	U	0.00097	J	0.00085	J	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
M, P Xylenes	179601-23-1	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Methyl Acetate	79-20-9	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Methyl tert-Butyl Ether	1634-04-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Methylcyclohexane	108-87-2	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Methylene Chloride	75-09-2	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Styrene	100-42-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Tetrachloroethene (PCE)	127-18-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Toluene	108-88-3	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Trichloroethene (TCE)	79-01-6	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Trichlorofluoromethane	75-69-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
Vinyl Chloride	75-01-4	mg/kg	U	0.0051	U	0.0041	U	0.0051	U	0.0034	U	0.0053	U	0.0038	U	0.0057	UJ	0.0048	U	0.006	U	0.0035	U	0.0058	U
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	U			0.078	U			0.077	U			0.077	U			0.068	U			0.075	U		
1-methylnaphthalene	90-12-0	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2,4,5-Trichlorophenol	95-95-4	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2,4,6-Trichlorophenol	88-06-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2,4-Dichlorophenol	120-83-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2,4-Dimethylphenol	105-67-9	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2,4-Dinitrophenol	51-28-5	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	R-13	SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13	
			Sample:	3-39-40	SB-BR-13-39-40-2		SB-BR-13-49-50		SB-BR-13-49-50-2		SB-BR-13-59-60		SB-BR-13-59-60-2		SB-BR-13-69-70		SB-BR-13-69-70-2		SB-BR-13-79-80		SB-BR-13-79-80-2		SB-BR-13-89-90		SB-BR-13-89-90-2	
			Start Depth (ft):	9	39		49		49		59		59		69		69		79		79		89		89	
			End Depth (ft):	0	40		50		50		60		60		70		70		80		80		90		90	
			Sample Date:	/2022	11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/21/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022	
Analyte	CAS	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2,4-Dinitrotoluene	121-14-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2,6-Dinitrotoluene	606-20-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2-Chloronaphthalene	91-58-7	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2-Chlorophenol	95-57-8	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2-Methylnaphthalene	91-57-6	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
2-Nitroaniline	88-74-4	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
2-Nitrophenol	88-75-5	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
3-Nitroaniline	99-09-2	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
4-Chloro-3-Methylphenol	59-50-7	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
4-Chloroaniline	106-47-8	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
4-Nitroaniline	100-01-6	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
4-Nitrophenol	100-02-7	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Acenaphthene	83-32-9	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Acenaphthylene	208-96-8	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Acetophenone	98-86-2	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Anthracene	120-12-7	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Atrazine	1912-24-9	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Benzaldehyde	100-52-7	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Benzo(a)anthracene	56-55-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Benzo(a)pyrene	50-32-8	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Benzo(b)fluoranthene	205-99-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Benzo(g,h,i)perylene	191-24-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Benzo(k)fluoranthene	207-08-9	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Benzyl Butyl Phthalate	85-68-7	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Biphenyl (Diphenyl)	92-52-4	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Caprolactam	105-60-2	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Carbazole	86-74-8	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Chrysene	218-01-9	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Dibenz(a,h)anthracene	53-70-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Dibenzofuran	132-64-9	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Diethyl Phthalate	84-66-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Dimethyl Phthalate	131-11-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Di-N-Butyl Phthalate	84-74-2	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Di-N-Octylphthalate	117-84-0	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Fluoranthene	206-44-0	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Fluorene	86-73-7	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Hexachlorobenzene	118-74-1	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Hexachlorobutadiene	87-68-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Hexachlorocyclopentadiene	77-47-4	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Hexachloroethane	67-72-1	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Isophorone	78-59-1	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Naphthalene	91-20-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Nitrobenzene	98-95-3	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Pentachlorophenol	87-86-5	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Phenanthrene	85-01-8	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Phenol	108-95-2	mg/kg	U			0.38	U			0.38	U			0.38	U			0.34	U			0.37	U		
Pyrene	129-00-0	mg/kg	U			0.2	U			0.2	U			0.19	U			0.17	U			0.19	U		
Parameters																									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																							
Solids, Percent	SOLID	%																							
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																							

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

	Location:	SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR
	Sample:	SB-BR-13-99-100		SB-BR-13-99-100-2		SB-BR-13-109-110		SB-BR-13-109-110-2		SB-BR-13-117-118		SB-BR-13-117-118-2		SB-BR-LIF16-01-02		SB-BR-LIF16-08-09		SB-BR-LIF16-15-16		SB-BR-LIF16-25-26		SB-BR-LIF16-25-26-1		SB-BR-LI
	Start Depth (ft):	99		99		109		109		117		117		1		8		15		25		25		3
	End Depth (ft):	100		100		110		110		118		118		2		9		16		26		26		3
	Sample Date:	11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,1,2-Trichloroethane	79-00-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,1-Dichloroethane	75-34-3	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,1-Dichloroethene	75-35-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0046	UJ	0.0059	U	0.0037	U	0.0056	U	0.0049	UJ	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,2,3-Trichloropropane	96-18-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0046	UJ	0.0059	U	0.0037	U	0.0056	U	0.0049	UJ	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0013	J	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,2-Dibromoethane	106-93-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,2-Dichlorobenzene	95-50-1	mg/kg	0.0046	UJ	0.0059	U	0.0037	U	0.0056	U	0.0049	UJ	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,2-Dichloroethane	107-06-2	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,2-Dichloropropane	78-87-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,3-Dichlorobenzene	541-73-1	mg/kg	0.0046	UJ	0.0059	U	0.0037	U	0.0056	U	0.0049	UJ	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
1,4-Dichlorobenzene	106-46-7	mg/kg	0.0046	UJ	0.0059	U	0.0037	U	0.0056	U	0.0049	UJ	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
2-Butanone	78-93-3	mg/kg	0.0092	U	0.012	U	0.0074	U	0.011	U	0.0097	U	0.0082	U	0.011	U	0.0095	J	0.012	U	0.011	U	0.011	U	0.013
2-Hexanone	591-78-6	mg/kg	0.0092	U	0.012	U	0.0074	U	0.011	U	0.0097	U	0.0082	U	0.011	U	0.011	U	0.012	U	0.011	U	0.011	U	0.013
4-Methyl-2-Pentanone	108-10-1	mg/kg	0.0092	U	0.012	U	0.0074	U	0.011	U	0.0097	U	0.0082	U	0.011	U	0.011	U	0.012	U	0.011	U	0.011	U	0.013
Acetone	67-64-1	mg/kg	0.0092	U	0.012	U	0.0074	U	0.011	U	0.0097	U	0.0082	U	0.036		0.039		0.012	U	0.011	U	0.011	U	0.013
Benzene	71-43-2	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Bromochloromethane	74-97-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Bromodichloromethane	75-27-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Bromoform	75-25-2	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
Bromomethane	74-83-9	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Carbon Disulfide	75-15-0	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Carbon Tetrachloride	56-23-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Chlorobenzene	108-90-7	mg/kg	0.0046	UJ	0.0059	U	0.0037	U	0.0056	U	0.0049	UJ	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Chloroethane	75-00-3	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Chloroform	67-66-3	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0059		0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Chloromethane	74-87-3	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0037	J	0.0026	J	0.0041
cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Cyclohexane	110-82-7	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Dibromochloromethane	124-48-1	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Dichlorodifluoromethane	75-71-8	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Ethylbenzene	100-41-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0019	J	0.006	U	0.0056	U	0.0057	U	0.0063
Isopropylbenzene	98-82-8	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	UJ	0.006	U	0.0056	U	0.0057	U	0.0063
M, P Xylenes	179601-23-1	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0083		0.006	U	0.0056	U	0.0057	U	0.0063
Methyl Acetate	79-20-9	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Methyl tert-Butyl Ether	1634-04-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Methylcyclohexane	108-87-2	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Methylene Chloride	75-09-2	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0031	J	0.006	U	0.0056	U	0.0057	U	0.0063
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0042	J	0.006	U	0.0056	U	0.0057	U	0.0063
Styrene	100-42-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Tetrachloroethene (PCE)	127-18-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Toluene	108-88-3	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Trichloroethene (TCE)	79-01-6	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Trichlorofluoromethane	75-69-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
Vinyl Chloride	75-01-4	mg/kg	0.0046	U	0.0059	U	0.0037	U	0.0056	U	0.0049	U	0.0041	U	0.0057	U	0.0056	U	0.006	U	0.0056	U	0.0057	U	0.0063
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	0.19	U			0.19	U			0.18	U			2	U	2	U	0.21	U	0.21	U	0.2	U	0.2
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	0.074	U			0.076	U			0.07	U			0.77	U	0.78	U	0.082	U	0.081	U	0.081	U	0.081
1-methylnaphthalene	90-12-0	mg/kg	0.19	U			0.19	U			0.18	U			2	U	2	U	0.21	U	0.21	U	0.2	U	0.2
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	0.19	U			0.19	U			0.18	U			2	U	2	U	0.21	U	0.21	U	0.2	U	0.2
2,4,5-Trichlorophenol	95-95-4	mg/kg	0.19	U			0.19	U			0.18	U			2	U	2	U	0.21	U	0.21	U	0.2	U	0.2
2,4,6-Trichlorophenol	88-06-2	mg/kg	0.19	U			0.19	U			0.18	U			2	U	2	U	0.21	U	0.21	U	0.2	U	0.2
2,4-Dichlorophenol	120-83-2	mg/kg	0.19	U			0.19	U			0.18	U			2	U	2	U	0.21	U	0.21	U	0.2	U	0.2
2,4-Dimethylphenol	105-67-9	mg/kg	0.19	U			0.19	U			0.18	U			2	U	2	U	0.21	U	0.21	U	0.2	U	0.2
2,4-Dinitrophenol	51-28-5	mg/kg	0.37	U			0.37	U			0.35	U			3.8	U	3.8	U	0.4	U	0.4	U	0.4	U	0.4

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR	
		Sample:	SB-BR-13-99-100		SB-BR-13-99-100-2		SB-BR-13-109-110		SB-BR-13-109-110-2		SB-BR-13-117-118		SB-BR-13-117-118-2		SB-BR-LIF16-01-02		SB-BR-LIF16-08-09		SB-BR-LIF16-15-16		SB-BR-LIF16-25-26		SB-BR-LIF16-25-26-1		SB-BR-LI			
		Start Depth (ft):	99		99		109		109		117		117		1		8		15		25		25		3			
		End Depth (ft):	100		100		110		110		118		118		2		9		16		26		26		3			
		Sample Date:	11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		11/22/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12			
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2,4-Dinitrotoluene	121-14-2	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
2,6-Dinitrotoluene	606-20-2	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
2-Chloronaphthalene	91-58-7	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
2-Chlorophenol	95-57-8	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
2-Methylnaphthalene	91-57-6	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
2-Nitroaniline	88-74-4	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
2-Nitrophenol	88-75-5	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
3,3'-Dichlorobenzidine	91-94-1	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
3-Nitroaniline	99-09-2	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
4-Chloro-3-Methylphenol	59-50-7	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
4-Chloroaniline	106-47-8	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
4-Nitroaniline	100-01-6	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
4-Nitrophenol	100-02-7	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Acenaphthene	83-32-9	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Acenaphthylene	208-96-8	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Acetophenone	98-86-2	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Anthracene	120-12-7	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			0.64	J	2.5		*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Atrazine	1912-24-9	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Benzaldehyde	100-52-7	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Benzo(a)anthracene	56-55-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			0.9	J	2.6		*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Benzo(a)pyrene	50-32-8	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	1.2	J	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Benzo(b)fluoranthene	205-99-2	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			1.1	J	3.4		*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Benzo(g,h,i)perylene	191-24-2	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Benzo(k)fluoranthene	207-08-9	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	1.1	J	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Benzyl Butyl Phthalate	85-68-7	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Biphenyl (Diphenyl)	92-52-4	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Caprolactam	105-60-2	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Carbazole	86-74-8	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			0.46	J	0.82	J	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Chrysene	218-01-9	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			1	J	3.7		*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Dibenz(a,h)anthracene	53-70-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Dibenzofuran	132-64-9	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	0.92	J	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Diethyl Phthalate	84-66-2	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Dimethyl Phthalate	131-11-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Di-N-Butyl Phthalate	84-74-2	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Di-N-Octylphthalate	117-84-0	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Fluoranthene	206-44-0	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			2.9		12		*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Fluorene	86-73-7	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	1.7	J	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Hexachlorobenzene	118-74-1	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Hexachlorobutadiene	87-68-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Hexachlorocyclopentadiene	77-47-4	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Hexachloroethane	67-72-1	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Isophorone	78-59-1	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Naphthalene	91-20-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Nitrobenzene	98-95-3	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
N-Nitrosodiphenylamine	86-30-6	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			*2*	*U*	*2*	*U*	*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Pentachlorophenol	87-86-5	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Phenanthrene	85-01-8	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			2.4		6.4		*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Phenol	108-95-2	mg/kg	*0.37*	*U*			*0.37*	*U*			*0.35*	*U*			*3.8*	*U*	*3.8*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*	*U*	*0.4*			
Pyrene	129-00-0	mg/kg	*0.19*	*U*			*0.19*	*U*			*0.18*	*U*			1.7	J	6.3		*0.21*	*U*	*0.21*	*U*	*0.2*	*U*	*0.2*			
Parameters																												
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																			*261*	*U*	*255*	*U*				
Solids, Percent	SOLID	%																			76.5		78.3					
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																			*261*	*U*	*255*	*U*				

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	-LIF16	SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18	
			Sample:	F16-34-35	SB-BR-LIF16-44-45		SB-BR-LIF16-54-55		SB-BR-LIF16-58-59		SB-BR-LIF16-66-67		SB-BR-LIF16-74-75		SB-BR-LIF18-02-03		SB-BR-LIF18-09-10		SB-BR-LIF18-12-13		SB-BR-LIF18-20-21		SB-BR-LIF18-25-26		SB-BR-LIF18-31-32			
			Start Depth (ft):	4	44		54		58		66		74		2		9		12		20		25		31			
			End Depth (ft):	5	45		55		59		67		75		3		10		13		21		26		32			
			Sample Date:	2022	9/12/2022		9/13/2022		9/13/2022		9/13/2022		9/13/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022			
Analyte	**CAS**	**Unit**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
VOCs																												
1,1,1-Trichloroethane	71-55-6	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0035	J	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,1,2-Trichloroethane	79-00-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
1,1-Dichloroethane	75-34-3	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0051	J	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
1,1-Dichloroethene	75-35-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
1,2,3-Trichlorobenzene	87-61-6	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,2,3-Trichloropropane	96-18-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,2,4-Trichlorobenzene	120-82-1	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,2,4-Trimethylbenzene	95-63-6	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.061		47		39		0.028		0.0014	J		
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	19		3.5	U	0.0055	U	0.0057	U		
1,2-Dibromoethane	106-93-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,2-Dichlorobenzene	95-50-1	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,2-Dichloroethane	107-06-2	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,2-Dichloropropane	78-87-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.025		20		16		0.01		0.0057	U		
1,3-Dichlorobenzene	541-73-1	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
1,4-Dichlorobenzene	106-46-7	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
2-Butanone	78-93-3	mg/kg	U	0.012	U	0.012	U	0.01	U	0.011	U	0.011	U	0.012	U	0.012	U	0.012	U	0.012	U	0.011	U	0.011	U		
2-Hexanone	591-78-6	mg/kg	U	0.012	U	0.012	U	0.01	U	0.011	U	0.011	U	0.012	U	0.012	U	0.012	UJ	0.012	UJ	0.011	U	0.011	U		
4-Methyl-2-Pentanone	108-10-1	mg/kg	U	0.012	U	0.012	U	0.01	U	0.011	U	0.011	U	0.012	U	0.012	U	0.012	UJ	0.012	UJ	0.011	U	0.011	U		
Acetone	67-64-1	mg/kg	U	0.012	U	0.012	U	0.01	U	0.011	U	0.018		0.012	U	0.041		0.017		0.021		0.015		0.027			
Benzene	71-43-2	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0011	J+	0.0062	U	0.0019	J	3.7	J+	0.98	J+	0.012		0.0057	U		
Bromochloromethane	74-97-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
Bromodichloromethane	75-27-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
Bromoform	75-25-2	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
Bromomethane	74-83-9	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
Carbon Disulfide	75-15-0	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0033	J	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
Carbon Tetrachloride	56-23-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
Chlorobenzene	108-90-7	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
Chloroethane	75-00-3	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
Chloroform	67-66-3	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
Chloromethane	74-87-3	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
cis-1,2-Dichloroethene	156-59-2	mg/kg	J	0.0089		0.012		0.0052	U	0.0057	U	0.014	J+	0.0062	U	0.0058	U	0.013	J+	0.95	J+	0.042		0.0057	U		
cis-1,3-Dichloropropene	10061-01-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
Cyclohexane	110-82-7	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0098	J+	0.011	J+	0.0055	U	0.0057	U		
Dibromochloromethane	124-48-1	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
Dichlorodifluoromethane	75-71-8	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
Ethylbenzene	100-41-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.014		14		11		0.013		0.0057	U		
Isopropylbenzene	98-82-8	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	UJ	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0017	J	0.0057	U		
M, P Xylenes	179601-23-1	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.03		33		27		0.038		0.0026	J		
Methyl Acetate	79-20-9	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
Methyl tert-Butyl Ether	1634-04-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
Methylcyclohexane	108-87-2	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.044	J+	0.056	J+	0.0055	U	0.0057	U		
Methylene Chloride	75-09-2	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0027	J	0.0062	U	0.003	J	0.0021	J-	0.0036	J-	0.0055	U	0.0019	J		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.016		13		10		0.016		0.001	J		
Styrene	100-42-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	6		4.6		0.0095		0.0057	U		
Tetrachloroethene (PCE)	127-18-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
Toluene	108-88-3	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0074		14		11		0.023		0.0057	U		
trans-1,2-Dichloroethene	156-60-5	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.0061	U	0.0055	U	0.0057	U		
trans-1,3-Dichloropropene	10061-02-6	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	UJ	0.0061	UJ	0.0055	U	0.0057	U		
Trichloroethene (TCE)	79-01-6	mg/kg	U	0.0091		0.01		0.0052	U	0.0057	U	0.024		0.0062	U	0.0058	U	0.13	J+	0.017	J+	0.0055	U	0.0057	U		
Trichlorofluoromethane	75-69-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	3.4	U	3.5	U	0.0055	U	0.0057	U		
Vinyl Chloride	75-01-4	mg/kg	U	0.006	U	0.006	U	0.0052	U	0.0057	U	0.0054	U	0.0062	U	0.0058	U	0.0059	U	0.014		0.0055	U	0.0057	U		
SVOCs																												
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	U	0.079	U	0.082	U	0.074	UJ	0.074	U	0.077	U	0.79	U	1.4	U	4.2	U	4.6	U	0.75	U	0.066	U		
1-methylnaphthalene	90-12-0	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	150		460	J	1.9	U	0.17	U		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2,4,5-Trichlorophenol	95-95-4	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2,4,6-Trichlorophenol	88-06-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2,4-Dichlorophenol	120-83-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2,4-Dimethylphenol	105-67-9	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2,4-Dinitrophenol	51-28-5	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	-LIF16	SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18	
			Sample:	F16-34-35	SB-BR-LIF16-44-45		SB-BR-LIF16-54-55		SB-BR-LIF16-58-59		SB-BR-LIF16-66-67		SB-BR-LIF16-74-75		SB-BR-LIF18-02-03		SB-BR-LIF18-09-10		SB-BR-LIF18-12-13		SB-BR-LIF18-20-21		SB-BR-LIF18-25-26		SB-BR-LIF18-31-32			
			Start Depth (ft):	4	44		54		58		66		74		2		9		12		20		25		31			
			End Depth (ft):	5	45		55		59		67		75		3		10		13		21		26		32			
			Sample Date:	2022	9/12/2022		9/13/2022		9/13/2022		9/13/2022		9/13/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022			
Analyte	CAS	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
2,4-Dinitrotoluene	121-14-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2,6-Dinitrotoluene	606-20-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2-Chloronaphthalene	91-58-7	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2-Chlorophenol	95-57-8	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2-Methylnaphthalene	91-57-6	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.2	J	230		680		1.9	U	0.19			
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
2-Nitroaniline	88-74-4	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
2-Nitrophenol	88-75-5	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
3-Nitroaniline	99-09-2	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
4-Chloro-3-Methylphenol	59-50-7	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
4-Chloroaniline	106-47-8	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
4-Nitroaniline	100-01-6	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
4-Nitrophenol	100-02-7	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Acenaphthene	83-32-9	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	150		490	J	1.9	U	0.17	U		
Acenaphthylene	208-96-8	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	39		160		1.9	U	0.17	U		
Acetophenone	98-86-2	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Anthracene	120-12-7	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	1.2	J	62		170		1.9	U	0.17	U		
Atrazine	1912-24-9	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Benzaldehyde	100-52-7	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Benzo(a)anthracene	56-55-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	50		170		1.9	U	0.17	U		
Benzo(a)pyrene	50-32-8	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	22		79		1.9	U	0.17	U		
Benzo(b)fluoranthene	205-99-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	1.6	J	30		110		1.9	U	0.17	U		
Benzo(g,h,i)perylene	191-24-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	5.7	J	21		1.9	U	0.17	U		
Benzo(k)fluoranthene	207-08-9	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	13		39		1.9	U	0.17	U		
Benzyl Butyl Phthalate	85-68-7	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Biphenyl (Diphenyl)	92-52-4	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	41		150		1.9	U	0.17	U		
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Caprolactam	105-60-2	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Carbazole	86-74-8	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	2.3	J	34		95		0.5	J	0.32	U		
Chrysene	218-01-9	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	1.6	J	43		120		1.9	U	0.17	U		
Dibenz(a,h)anthracene	53-70-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	8.3	J	1.9	U	0.17	U		
Dibenzofuran	132-64-9	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	2.1	J	160		520	J	1.9	U	0.17	U		
Diethyl Phthalate	84-66-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Dimethyl Phthalate	131-11-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Di-N-Butyl Phthalate	84-74-2	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Di-N-Octylphthalate	117-84-0	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Fluoranthene	206-44-0	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	4.7		260	J	580		1.9	U	0.17	U		
Fluorene	86-73-7	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	2.2	J	190	J	580	J	1.9	U	0.17	U		
Hexachlorobenzene	118-74-1	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Hexachlorobutadiene	87-68-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Hexachlorocyclopentadiene	77-47-4	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Hexachloroethane	67-72-1	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	7.6	J	27		1.9	U	0.17	U		
Isophorone	78-59-1	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Naphthalene	91-20-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	15		870		2300		5.3		1.2			
Nitrobenzene	98-95-3	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	3.6	U	11	U	12	U	1.9	U	0.17	U		
Pentachlorophenol	87-86-5	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Phenanthrene	85-01-8	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	5.9		400		1300		1.9	U	0.053	J		
Phenol	108-95-2	mg/kg	U	0.39	U	0.4	U	0.36	U	0.36	U	0.38	U	3.9	U	7	U	21	U	22	U	3.7	U	0.32	U		
Pyrene	129-00-0	mg/kg	U	0.2	U	0.21	U	0.19	U	0.19	U	0.2	U	2	U	2.6	J	170	J	450	J	1.9	U	0.17	U		
Parameters																											
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg																10600						230	U		
Solids, Percent	SOLID	%																78.5						87.1			
TPH, HEM-SGT	TPHNONPOLAR	mg/kg																6200						230	U		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR
		Sample:	SB-BR-LIF18-43-44		SB-BR-LIF18-53-54		SB-BR-LIF22-02-03		SB-BR-LIF22-10-11		SB-BR-LIF22-15-16		SB-BR-LIF22-19-20		SB-BR-LIF22-29-30		SB-BR-LIF22-39-40		SB-BR-LIF22-48-49		SB-BR-LIF22-59-60		SB-BR-LIF22-69-70		SB-BR-LI
		Start Depth (ft):	43		53		2		10		15		19		29		39		48		59		69		8
		End Depth (ft):	44		54		3		11		16		20		30		40		49		60		70		9
		Sample Date:	9/14/2022		9/14/2022		9/22/2022		9/22/2022		9/22/2022		9/22/2022		9/23/2022		9/23/2022		9/23/2022		9/26/2022		9/26/2022		9/27
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
VOCs																									
1,1,1-Trichloroethane	71-55-6	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.014		0.0054	U	0.0051	U	0.0057
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0058	U	0.0057	U	0.0057	UJ	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
1,1,2-Trichloroethane	79-00-5	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
1,1-Dichloroethane	75-34-3	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0056	J	0.0054	U	0.0051	U	0.0057
1,1-Dichloroethene	75-35-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0058	UJ	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
1,2,3-Trichloropropane	96-18-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0058	UJ	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0058	U	0.0057	U	0.0011	J	0.005	U	0.014		11		0.027		0.011		2.2		0.0069		0.0051	U	0.0057
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0058	U	0.0057	U	0.0057	UJ	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
1,2-Dibromoethane	106-93-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
1,2-Dichlorobenzene	95-50-1	mg/kg	0.0058	UJ	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
1,2-Dichloroethane	107-06-2	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
1,2-Dichloropropane	78-87-5	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0061		5.1		0.012		0.0046	J	1		0.0027	J	0.0051	U	0.0057
1,3-Dichlorobenzene	541-73-1	mg/kg	0.0058	UJ	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
1,4-Dichlorobenzene	106-46-7	mg/kg	0.0058	UJ	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
2-Butanone	78-93-3	mg/kg	0.012	U	0.011	U	0.011	U	0.01	U	0.011	U	0.012	U	0.0095	U	0.01	U	0.012	U	0.011	U	0.01	U	0.011
2-Hexanone	591-78-6	mg/kg	0.012	U	0.011	U	0.011	U	0.01	U	0.011	U	0.012	UJ	0.0095	U	0.01	U	0.012	U	0.011	U	0.01	U	0.011
4-Methyl-2-Pentanone	108-10-1	mg/kg	0.012	U	0.011	U	0.011	U	0.01	U	0.011	U	0.012	UJ	0.0095	U	0.01	U	0.012	U	0.011	U	0.01	U	0.011
Acetone	67-64-1	mg/kg	0.012	U	0.011	U	0.016		0.01	U	0.031		0.033		0.0093	J	0.01		0.012	U	0.0096	J	0.01	U	0.016
Benzene	71-43-2	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.014	J+	0.00081	J	0.0052	U	0.016		0.0054	U	0.0051	U	0.0057
Bromochloromethane	74-97-5	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Bromodichloromethane	75-27-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Bromoform	75-25-2	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.67	U	0.0048	U	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
Bromomethane	74-83-9	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Carbon Disulfide	75-15-0	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0032
Carbon Tetrachloride	56-23-5	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Chlorobenzene	108-90-7	mg/kg	0.0058	UJ	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Chloroethane	75-00-3	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Chloroform	67-66-3	mg/kg	0.0058	U	0.0057	U	0.017		0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Chloromethane	74-87-3	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0016	J	0.029		0.0054	U	0.0051	U	0.0057
cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Cyclohexane	110-82-7	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0037	J+	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Dibromochloromethane	124-48-1	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Dichlorodifluoromethane	75-71-8	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Ethylbenzene	100-41-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0021	J	1.5		0.011		0.0049	J	0.35		0.0054	U	0.0011	J	0.0057
Isopropylbenzene	98-82-8	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.39	J	0.00097	J	0.0052	U	0.35	U	0.0054	U	0.0051	U	0.0057
M, P Xylenes	179601-23-1	mg/kg	0.0058	U	0.0057	U	0.0029	J	0.005	U	0.0077		4.9		0.036		0.016		1.4		0.0025	J	0.0058		0.0057
Methyl Acetate	79-20-9	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Methyl tert-Butyl Ether	1634-04-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Methylcyclohexane	108-87-2	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0052	J+	0.0048	U	0.0052	U	0.0012	J+	0.0054	U	0.0051	U	0.0057
Methylene Chloride	75-09-2	mg/kg	0.0058	U	0.0057	U	0.016		0.0019	J	0.025		0.022		0.0029	J	0.0053		0.0069		0.0032	J	0.0021	J	0.0028
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	0.0058	U	0.0057	U	0.0014	J	0.005	U	0.0044	J	2.3		0.017		0.0078		0.65		0.0017	J	0.0029	J	0.0057
Styrene	100-42-5	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0014	J	1.1		0.0048	U	0.0051	J	0.51		0.0054	U	0.0051	U	0.0057
Tetrachloroethene (PCE)	127-18-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Toluene	108-88-3	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.21	J	0.0036	J	0.0045	J	0.15	J	0.0054	U	0.0051	U	0.0022
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	UJ	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Trichloroethene (TCE)	79-01-6	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0017	J+	0.0048	U	0.0052	U	0.042		0.0054	U	0.0051	U	0.0057
Trichlorofluoromethane	75-69-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
Vinyl Chloride	75-01-4	mg/kg	0.0058	U	0.0057	U	0.0057	U	0.005	U	0.0055	U	0.0059	U	0.0048	U	0.0052	U	0.0061	U	0.0054	U	0.0051	U	0.0057
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	0.16	U	0.18	U	0.39	U	0.19	U	0.37	U	10	U	0.19	U	0.16	U	12	U	0.17	U	0.14	U	0.2
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	0.065	U	0.072	U			0.075	U			4	U			0.062	U	4.8	U	0.068	U	0.057	U	0.077
1-methylnaphthalene	90-12-0	mg/kg	0.16	U	0.18	U	0.39	U	0.19	U	0.82		130		0.19	U	0.16	U	49		0.25		0.14	U	0.2
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	0.16	U	0.18	U	0.39	U	0.19	U	0.37	U	10	U	0.19	U	0.16	U	12	U	0.17	U	0.14	U	0.2
2,4,5-Trichlorophenol	95-95-4	mg/kg	0.16	U	0.18	U	0.39	U	0.19	U	0.37	U	10	U	0.19	U	0.16	U	12	U	0.17	U	0.14	U	0.2
2,4,6-Trichlorophenol	88-06-2	mg/kg	0.16	U	0.18	U	0.39	U	0.19	U	0.37	U	10	U	0.19	U	0.16	U	12	U	0.17	U	0.14	U	0.2
2,4-Dichlorophenol	120-83-2	mg/kg	0.16	U	0.18	U	0.39	U	0.19	U	0.37	U	10	U	0.19	U	0.16	U	12	U	0.17	U	0.14	U	0.2
2,4-Dimethylphenol	105-67-9	mg/kg	0.16	U	0.18	U	0.39	U	0.19	U	0.37	U	10	U	0.19	U	0.16	U	12	U	0.17	U	0.14	U	0.2
2,4-Dinitrophenol	51-28-5	mg/kg	0.32	U	0.35	U	0.75	UJ	0.37	U	0.73	U	20	U	0.36	U	0.3	U	24	U	0.34	U	0.28	U	0.38

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR
			Sample:	SB-BR-LIF18-43-44		SB-BR-LIF18-53-54		SB-BR-LIF22-02-03		SB-BR-LIF22-10-11		SB-BR-LIF22-15-16		SB-BR-LIF22-19-20		SB-BR-LIF22-29-30		SB-BR-LIF22-39-40		SB-BR-LIF22-48-49		SB-BR-LIF22-59-60		SB-BR-LIF22-69-70		SB-BR-LI
			Start Depth (ft):	43		53		2		10		15		19		29		39		48		59		69		8
			End Depth (ft):	44		54		3		11		16		20		30		40		49		60		70		9
			Sample Date:	9/14/2022		9/14/2022		9/22/2022		9/22/2022		9/22/2022		9/22/2022		9/23/2022		9/23/2022		9/23/2022		9/26/2022		9/26/2022		9/27
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**
2,4-Dinitrotoluene	121-14-2	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	7.1	J	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
2,6-Dinitrotoluene	606-20-2	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
2-Chloronaphthalene	91-58-7	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
2-Chlorophenol	95-57-8	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
2-Methylnaphthalene	91-57-6	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	1.6		270		*0.19*	*U*	*0.16*	*U*	110		0.46		*0.14*	*U*	*0.2*
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
2-Nitroaniline	88-74-4	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*UJ*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
2-Nitrophenol	88-75-5	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
3,3'-Dichlorobenzidine	91-94-1	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
3-Nitroaniline	99-09-2	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*UJ*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*UJ*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
4-Chloro-3-Methylphenol	59-50-7	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
4-Chloroaniline	106-47-8	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	0.089	J	*0.3*	*U*	77		*0.34*	*U*	*0.28*	*U*	*0.38*
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
4-Nitroaniline	100-01-6	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*UJ*	*0.37*	*U*	0.24	J	18	J	*0.36*	*U*	*0.3*	*U*	4.8	J	0.038	J	*0.28*	*U*	*0.38*
4-Nitrophenol	100-02-7	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*UJ*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Acenaphthene	83-32-9	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	0.22		4.7		390		*0.19*	*U*	*0.16*	*U*	100		0.66		*0.14*	*U*	*0.2*
Acenaphthylene	208-96-8	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	5.8	J	*0.19*	*U*	*0.16*	*U*	4.9	J	*0.17*	*U*	*0.14*	*U*	*0.2*
Acetophenone	98-86-2	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	0.17	J	*0.28*	*U*	*0.38*
Anthracene	120-12-7	mg/kg	*0.16*	*U*	*0.18*	*U*	0.49		0.2		2		140		*0.19*	*U*	*0.16*	*U*	23		0.23		*0.14*	*U*	*0.2*
Atrazine	1912-24-9	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Benzaldehyde	100-52-7	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Benzo(a)anthracene	56-55-3	mg/kg	*0.16*	*U*	*0.18*	*U*	1.3		0.38		2.1		140		*0.19*	*U*	*0.16*	*U*	37		0.43		*0.14*	*U*	*0.2*
Benzo(a)pyrene	50-32-8	mg/kg	*0.16*	*U*	*0.18*	*U*	0.68		0.2		0.78		54		*0.19*	*U*	*0.16*	*U*	15		0.17		*0.14*	*U*	*0.2*
Benzo(b)fluoranthene	205-99-2	mg/kg	*0.16*	*U*	*0.18*	*U*	1.4		0.37		1.1		75		*0.19*	*U*	*0.16*	*U*	21		0.28		*0.14*	*U*	*0.2*
Benzo(g,h,i)perylene	191-24-2	mg/kg	*0.16*	*U*	*0.18*	*U*	0.34	J	0.069	J	*0.37*	*U*	10		*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Benzo(k)fluoranthene	207-08-9	mg/kg	*0.16*	*U*	*0.18*	*U*	0.45		0.12	J	0.39		28		*0.19*	*U*	*0.16*	*U*	7.1	J	0.084	J	*0.14*	*U*	*0.2*
Benzyl Butyl Phthalate	85-68-7	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Biphenyl (Diphenyl)	92-52-4	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	0.62		67		*0.19*	*U*	*0.16*	*U*	21		0.15	J	*0.14*	*U*	*0.2*
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	0.49		*0.14*	*U*	*0.2*
Caprolactam	105-60-2	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Carbazole	86-74-8	mg/kg	*0.32*	*U*	*0.35*	*U*	0.22	J	0.055	J	2		66		*0.36*	*U*	0.16	J	14	J	0.21	J	*0.28*	*U*	*0.38*
Chrysene	218-01-9	mg/kg	*0.16*	*U*	*0.18*	*U*	1.4		0.38		1.8		150		*0.19*	*U*	*0.16*	*U*	24		0.33		*0.14*	*U*	*0.2*
Dibenz(a,h)anthracene	53-70-3	mg/kg	*0.16*	*U*	*0.18*	*U*	0.17	J	*0.19*	*U*	*0.37*	*U*	4.7	J	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Dibenzofuran	132-64-9	mg/kg	*0.16*	*U*	*0.18*	*U*	0.37	J	0.24		4.3		280		*0.19*	*U*	0.16		84		0.75		*0.14*	*U*	*0.2*
Diethyl Phthalate	84-66-2	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Dimethyl Phthalate	131-11-3	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Di-N-Butyl Phthalate	84-74-2	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Di-N-Octylphthalate	117-84-0	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Fluoranthene	206-44-0	mg/kg	*0.16*	*U*	*0.18*	*U*	5.1		1.8		12		690		0.08	J	*0.16*	*U*	190		2		*0.14*	*U*	*0.2*
Fluorene	86-73-7	mg/kg	*0.16*	*U*	*0.18*	*U*	0.15	J	0.24		5.2		310		*0.19*	*U*	0.074	J	96		0.84		*0.14*	*U*	*0.2*
Hexachlorobenzene	118-74-1	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Hexachlorobutadiene	87-68-3	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Hexachlorocyclopentadiene	77-47-4	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Hexachloroethane	67-72-1	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	*0.16*	*U*	*0.18*	*U*	0.49		0.1	J	0.2	J	14		*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Isophorone	78-59-1	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Naphthalene	91-20-3	mg/kg	*0.16*	*U*	0.13	J	*0.39*	*U*	*0.19*	*U*	3.4		590		*0.19*	*U*	*0.16*	*U*	230		0.89		*0.14*	*U*	*0.2*
Nitrobenzene	98-95-3	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	*0.37*	*U*	*10*	*U*	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	0.16	J	*0.37*	*U*	*10*	*U*	0.14	J	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
N-Nitrosodiphenylamine	86-30-6	mg/kg	*0.16*	*U*	*0.18*	*U*	*0.39*	*U*	*0.19*	*U*	0.11	J	3.9	J	*0.19*	*U*	*0.16*	*U*	*12*	*U*	*0.17*	*U*	*0.14*	*U*	*0.2*
Pentachlorophenol	87-86-5	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Phenanthrene	85-01-8	mg/kg	*0.16*	*U*	*0.18*	*U*	1.4		1.2		22		1100		0.087	J	0.15	J	300		1.2		*0.14*	*U*	*0.2*
Phenol	108-95-2	mg/kg	*0.32*	*U*	*0.35*	*U*	*0.75*	*U*	*0.37*	*U*	*0.73*	*U*	*20*	*U*	*0.36*	*U*	*0.3*	*U*	*24*	*U*	*0.34*	*U*	*0.28*	*U*	*0.38*
Pyrene	129-00-0	mg/kg	*0.16*	*U*	*0.18*	*U*	3.1		1.2		8.2		460		0.052	J	*0.16*	*U*	120		1.4		*0.14*	*U*	*0.2*
Parameters																									
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg											8110						*267*	*U*					
Solids, Percent	SOLID	%											84.8						74.8						
TPH, HEM-SGT	TPHNONPOLAR	mg/kg											719						*267*	*U*					

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	-LIF22
		Sample:	-22-89-90
		Start Depth (ft):	9
		End Depth (ft):	0
		Sample Date:	2022
Analyte	**CAS**	**Unit**	**Qual**
VOCs			
1,1,1-Trichloroethane	71-55-6	mg/kg	*U*
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	*U*
1,1,2-Trichloroethane	79-00-5	mg/kg	*U*
1,1-Dichloroethane	75-34-3	mg/kg	*U*
1,1-Dichloroethene	75-35-4	mg/kg	*U*
1,2,3-Trichlorobenzene	87-61-6	mg/kg	*UJ*
1,2,3-Trichloropropane	96-18-4	mg/kg	*U*
1,2,4-Trichlorobenzene	120-82-1	mg/kg	*UJ*
1,2,4-Trimethylbenzene	95-63-6	mg/kg	*UJ*
1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	*UJ*
1,2-Dibromoethane	106-93-4	mg/kg	*U*
1,2-Dichlorobenzene	95-50-1	mg/kg	*UJ*
1,2-Dichloroethane	107-06-2	mg/kg	*U*
1,2-Dichloropropane	78-87-5	mg/kg	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	mg/kg	*UJ*
1,3-Dichlorobenzene	541-73-1	mg/kg	*UJ*
1,4-Dichlorobenzene	106-46-7	mg/kg	*UJ*
2-Butanone	78-93-3	mg/kg	*U*
2-Hexanone	591-78-6	mg/kg	*U*
4-Methyl-2-Pentanone	108-10-1	mg/kg	*U*
Acetone	67-64-1	mg/kg	
Benzene	71-43-2	mg/kg	*U*
Bromochloromethane	74-97-5	mg/kg	*U*
Bromodichloromethane	75-27-4	mg/kg	*U*
Bromoform	75-25-2	mg/kg	*U*
Bromomethane	74-83-9	mg/kg	*U*
Carbon Disulfide	75-15-0	mg/kg	J
Carbon Tetrachloride	56-23-5	mg/kg	*U*
Chlorobenzene	108-90-7	mg/kg	*U*
Chloroethane	75-00-3	mg/kg	*U*
Chloroform	67-66-3	mg/kg	*U*
Chloromethane	74-87-3	mg/kg	*U*
cis-1,2-Dichloroethene	156-59-2	mg/kg	*U*
cis-1,3-Dichloropropene	10061-01-5	mg/kg	*U*
Cyclohexane	110-82-7	mg/kg	*U*
Dibromochloromethane	124-48-1	mg/kg	*U*
Dichlorodifluoromethane	75-71-8	mg/kg	*U*
Ethylbenzene	100-41-4	mg/kg	*U*
Isopropylbenzene	98-82-8	mg/kg	*UJ*
M, P Xylenes	179601-23-1	mg/kg	*U*
Methyl Acetate	79-20-9	mg/kg	*U*
Methyl tert-Butyl Ether	1634-04-4	mg/kg	*U*
Methylcyclohexane	108-87-2	mg/kg	*U*
Methylene Chloride	75-09-2	mg/kg	J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	mg/kg	*U*
Styrene	100-42-5	mg/kg	*U*
Tetrachloroethene (PCE)	127-18-4	mg/kg	*U*
Toluene	108-88-3	mg/kg	J
trans-1,2-Dichloroethene	156-60-5	mg/kg	*U*
trans-1,3-Dichloropropene	10061-02-6	mg/kg	*U*
Trichloroethene (TCE)	79-01-6	mg/kg	*U*
Trichlorofluoromethane	75-69-4	mg/kg	*U*
Vinyl Chloride	75-01-4	mg/kg	*U*
SVOCs			
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	*U*
1,4-Dioxane (P-Dioxane)	123-91-1	mg/kg	*U*
1-methylnaphthalene	90-12-0	mg/kg	*U*
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	*U*
2,4,5-Trichlorophenol	95-95-4	mg/kg	*U*
2,4,6-Trichlorophenol	88-06-2	mg/kg	*U*
2,4-Dichlorophenol	120-83-2	mg/kg	*U*
2,4-Dimethylphenol	105-67-9	mg/kg	*U*
2,4-Dinitrophenol	51-28-5	mg/kg	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J -1
Soil Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	-LIF22
		Sample:	-22-89-90
		Start Depth (ft):	9
		End Depth (ft):	0
		Sample Date:	2022
Analyte	**CAS**	**Unit**	**Qual**
2,4-Dinitrotoluene	121-14-2	mg/kg	*U*
2,6-Dinitrotoluene	606-20-2	mg/kg	*U*
2-Chloronaphthalene	91-58-7	mg/kg	*U*
2-Chlorophenol	95-57-8	mg/kg	*U*
2-Methylnaphthalene	91-57-6	mg/kg	*U*
2-Methylphenol (O-Cresol)	95-48-7	mg/kg	*U*
2-Nitroaniline	88-74-4	mg/kg	*U*
2-Nitrophenol	88-75-5	mg/kg	*UJ*
3,3'-Dichlorobenzidine	91-94-1	mg/kg	*U*
3-Nitroaniline	99-09-2	mg/kg	*U*
4,6-Dinitro-2-Methylphenol	534-52-1	mg/kg	*UJ*
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg	*U*
4-Chloro-3-Methylphenol	59-50-7	mg/kg	*U*
4-Chloroaniline	106-47-8	mg/kg	*U*
4-Chlorophenyl Phenyl Ether	7005-72-3	mg/kg	*U*
4-Methylphenol (P-Cresol)	106-44-5	mg/kg	*U*
4-Nitroaniline	100-01-6	mg/kg	*U*
4-Nitrophenol	100-02-7	mg/kg	*U*
Acenaphthene	83-32-9	mg/kg	*U*
Acenaphthylene	208-96-8	mg/kg	*U*
Acetophenone	98-86-2	mg/kg	*U*
Anthracene	120-12-7	mg/kg	*U*
Atrazine	1912-24-9	mg/kg	*U*
Benzaldehyde	100-52-7	mg/kg	*U*
Benzo(a)anthracene	56-55-3	mg/kg	*U*
Benzo(a)pyrene	50-32-8	mg/kg	*U*
Benzo(b)fluoranthene	205-99-2	mg/kg	*U*
Benzo(g,h,i)perylene	191-24-2	mg/kg	*U*
Benzo(k)fluoranthene	207-08-9	mg/kg	*U*
Benzyl Butyl Phthalate	85-68-7	mg/kg	*U*
Biphenyl (Diphenyl)	92-52-4	mg/kg	*U*
bis(2-Chloroethoxy) Methane	111-91-1	mg/kg	*U*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	mg/kg	*U*
bis(2-Chloroisopropyl) Ether	108-60-1	mg/kg	*U*
bis(2-Ethylhexyl) Phthalate	117-81-7	mg/kg	*U*
Caprolactam	105-60-2	mg/kg	*U*
Carbazole	86-74-8	mg/kg	*U*
Chrysene	218-01-9	mg/kg	*U*
Dibenz(a,h)anthracene	53-70-3	mg/kg	*U*
Dibenzofuran	132-64-9	mg/kg	*U*
Diethyl Phthalate	84-66-2	mg/kg	*U*
Dimethyl Phthalate	131-11-3	mg/kg	*U*
Di-N-Butyl Phthalate	84-74-2	mg/kg	*U*
Di-N-Octylphthalate	117-84-0	mg/kg	*U*
Fluoranthene	206-44-0	mg/kg	*U*
Fluorene	86-73-7	mg/kg	*U*
Hexachlorobenzene	118-74-1	mg/kg	*U*
Hexachlorobutadiene	87-68-3	mg/kg	*U*
Hexachlorocyclopentadiene	77-47-4	mg/kg	*U*
Hexachloroethane	67-72-1	mg/kg	*U*
Indeno(1,2,3-c,d)pyrene	193-39-5	mg/kg	*U*
Isophorone	78-59-1	mg/kg	*UJ*
Naphthalene	91-20-3	mg/kg	*U*
Nitrobenzene	98-95-3	mg/kg	*U*
N-Nitrosodi-N-Propylamine	621-64-7	mg/kg	*U*
N-Nitrosodiphenylamine	86-30-6	mg/kg	*U*
Pentachlorophenol	87-86-5	mg/kg	*U*
Phenanthrene	85-01-8	mg/kg	*U*
Phenol	108-95-2	mg/kg	*U*
Pyrene	129-00-0	mg/kg	*U*
Parameters			
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/kg	
Solids, Percent	SOLID	%	
TPH, HEM-SGT	TPHNONPOLAR	mg/kg	

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-02		SB-BR-02		SB-BR-02	
			Sample:	GW-SB-BR-01-75-85		GW-SB-BR-01-85-100		GW-SB-BR-01-85-100-1		GW-SB-BR-01-100-120		GW-SB-BR-01-120-140		GW-SB-BR-01-140-160		GW-SB-BR-02-80-90		GW-SB-BR-02-90-100		GW-SB-BR-02-100-108.5	
			Start Depth (ft):	75		85		85		100		120		140		80		90		100		108.5	
			End Depth (ft):	85		100		100		120		140		160		90		100		100		100	
			Sample Date:	10/18/2022		10/21/2022		10/21/2022		10/24/2022		10/24/2022		10/21/2022		10/12/2022		10/12/2022		10/13/2022	
VOCs																					
1,1,1-Trichloroethane	71-55-6	ug/l	1		0.62	J	0.6	J	1.1		1.1		*1*	*U*	4.7		7.2		7.3	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1-Dichloroethane	75-34-3	ug/l	0.88	J	0.68	J	*1*	*U*	1.9		1.3		*1*	*U*	3.8		12		11	
1,1-Dichloroethene	75-35-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	3.8		3.8	
1,2,3-Trichlorobenzene	87-61-6	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	*1*	*U*	1		1		44		7.6		0.92	J	4.3		11		6.3	
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloroethane	107-06-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*1*	*U*	0.54	J	0.54	J	26		4		0.5	J	1.6		6.2		3.4	
1,3-Dichlorobenzene	541-73-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
2-Butanone	78-93-3	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
2-Hexanone	591-78-6	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Acetone	67-64-1	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	66		*10*	*U*	*10*	*U*
Benzene	71-43-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromochloromethane	74-97-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromodichloromethane	75-27-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromoform	75-25-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromomethane	74-83-9	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Disulfide	75-15-0	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.54	J	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chlorobenzene	108-90-7	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroethane	75-00-3	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroform	67-66-3	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloromethane	74-87-3	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
cis-1,2-Dichloroethene	156-59-2	ug/l	2.7		3.4		3.3		5.1		3.4		*1*	*U*	21		50		40	
cis-1,3-Dichloropropene	10061-01-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Cyclohexane	110-82-7	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Dibromochloromethane	124-48-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Dichlorodifluoromethane	75-71-8	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Ethylbenzene	100-41-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	3.9		0.66	J	*1*	*U*	1		0.5	J	0.46	J
Isopropylbenzene	98-82-8	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	1.9		0.28	J	*1*	*U*	0.16	J	0.46	J	0.26	J
M, P Xylenes	179601-23-1	ug/l	*1*	*U*	0.28	J	0.28	J	18		2.9		0.26	J	3.9		2.1		1.9	
Methyl Acetate	79-20-9	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	1		*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methylcyclohexane	108-87-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methylene Chloride	75-09-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	*1*	*U*	0.14	J	*1*	*U*	8.5		1.4		0.14	J	1.6		1.3		1.1	
Styrene	100-42-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	1		*1*	*U*	*1*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Toluene	108-88-3	ug/l	1.5		5.7		5.6		6.2		2.5		12		4.3		1.2		0.66	J
trans-1,2-Dichloroethene	156-60-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
trans-1,3-Dichloropropene	10061-02-6	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Trichloroethene (TCE)	79-01-6	ug/l	2.2		0.68	J	0.68	J	0.58	J	0.36	J	*1*	*U*	4.6		7.5		8.1	
Trichlorofluoromethane	75-69-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Vinyl Chloride	75-01-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	2.5		1.6	
SVOCs																					
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	1.4	J	2.4		2.4		2.9		2.6		*2*	*U*	3.4		8.6		8.7	
1-methylnaphthalene	90-12-0	ug/l	*4.9*	*U*	17		15		360		73		14		37		200		150	
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2,4,5-Trichlorophenol	95-95-4	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2,4,6-Trichlorophenol	88-06-2	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2,4-Dichlorophenol	120-83-2	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2,4-Dimethylphenol	105-67-9	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2,4-Dinitrophenol	51-28-5	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-01		SB-BR-02		SB-BR-02		SB-BR-02	
			Sample:	GW-SB-BR-01-75-85		GW-SB-BR-01-85-100		GW-SB-BR-01-85-100-1		GW-SB-BR-01-100-120		GW-SB-BR-01-120-140		GW-SB-BR-01-140-160		GW-SB-BR-02-80-90		GW-SB-BR-02-90-100		GW-SB-BR-02-100-108.5	
			Start Depth (ft):	75		85		85		100		120		140		80		90		100		108.5	
			End Depth (ft):	85		100		100		120		140		160		90		100		100		108.5	
			Sample Date:	10/18/2022		10/21/2022		10/21/2022		10/24/2022		10/24/2022		10/21/2022		10/12/2022		10/12/2022		10/13/2022	
2,4-Dinitrotoluene	121-14-2	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2,6-Dinitrotoluene	606-20-2	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2-Chloronaphthalene	91-58-7	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2-Chlorophenol	95-57-8	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2-Methylnaphthalene	91-57-6	ug/l	*4.9*	*U*	35		31		760		160		26		65		320		250	
2-Methylphenol (O-Cresol)	95-48-7	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
2-Nitroaniline	88-74-4	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
2-Nitrophenol	88-75-5	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
3,3'-Dichlorobenzidine	91-94-1	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
3-Nitroaniline	99-09-2	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
4-Chloro-3-Methylphenol	59-50-7	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
4-Chloroaniline	106-47-8	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
4-Methylphenol (P-Cresol)	106-44-5	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	19		32	
4-Nitroaniline	100-01-6	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Nitrophenol	100-02-7	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Acenaphthene	83-32-9	ug/l	*4.9*	*U*	28		26		510		110		23		38		280		210	
Acenaphthylene	208-96-8	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	23		4.1	J	*4.9*	*U*	11		10		12	
Acetophenone	98-86-2	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Anthracene	120-12-7	ug/l	*4.9*	*U*	3.5	J	3.2	J	62		8		*4.9*	*U*	5.6		30		23	
Atrazine	1912-24-9	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzaldehyde	100-52-7	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzo(a)anthracene	56-55-3	ug/l	*4.9*	*U*	4.7	J	3.7	J	95	J	4.5	J	*4.9*	*U*	*5*	*U*	38		30	
Benzo(a)pyrene	50-32-8	ug/l	*4.9*	*U*	*4.9*	*UJ*		R	46	J-	*5*	*UJ*		R	*5*	*U*	18		15	
Benzo(b)fluoranthene	205-99-2	ug/l	*4.9*	*U*	*4.9*	*UJ*		R	62	J-	*5*	*UJ*		R	*5*	*U*	24		20	
Benzo(g,h,i)perylene	191-24-2	ug/l	*4.9*	*U*	*4.9*	*UJ*		R	13	J-	*5*	*UJ*		R	*5*	*U*	5.1		4.3	J
Benzo(k)fluoranthene	207-08-9	ug/l	*4.9*	*U*	*4.9*	*UJ*		R	24	J-	*5*	*UJ*		R	*5*	*U*	9.6		6.2	
Benzyl Butyl Phthalate	85-68-7	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Biphenyl (Diphenyl)	92-52-4	ug/l	*4.9*	*U*	7.4		6.6		140		28		5.4		13		55		43	
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Caprolactam	105-60-2	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Carbazole	86-74-8	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	51		10		*9.8*	*U*	13		20		18	
Chrysene	218-01-9	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	56		*5*	*U*	*4.9*	*U*	*5*	*U*	26		19	
Dibenz(a,h)anthracene	53-70-3	ug/l	*4.9*	*U*	*4.9*	*UJ*		R	4.6	J-	*5*	*UJ*		R	*5*	*U*	*5*	*U*	*5.2*	*U*
Dibenzofuran	132-64-9	ug/l	*4.9*	*U*	22		20		400		73		17		35		220		180	
Diethyl Phthalate	84-66-2	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Dimethyl Phthalate	131-11-3	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Di-N-Butyl Phthalate	84-74-2	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Di-N-Octylphthalate	117-84-0	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Fluoranthene	206-44-0	ug/l	*4.9*	*U*	25		22		480		45		12		8.8		230		200	
Fluorene	86-73-7	ug/l	*4.9*	*U*	25		23		410		75		19		39		230		190	
Hexachlorobenzene	118-74-1	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Hexachlorobutadiene	87-68-3	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Hexachlorocyclopentadiene	77-47-4	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Hexachloroethane	67-72-1	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	*4.9*	*U*	*4.9*	*UJ*		R	14	J-	*5*	*UJ*		R	*5*	*U*	5.5		4.6	J
Isophorone	78-59-1	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Naphthalene	91-20-3	ug/l	*4.9*	*U*	43		39		1400		280		36		330		510		420	
Nitrobenzene	98-95-3	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
N-Nitrosodiphenylamine	86-30-6	ug/l	*4.9*	*U*	*4.9*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*
Pentachlorophenol	87-86-5	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Phenanthrene	85-01-8	ug/l	4.6	J	61		56		980		160		44		54		500		430	
Phenol	108-95-2	ug/l	*9.8*	*U*	*9.8*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Pyrene	129-00-0	ug/l	*4.9*	*U*	16		14		340		30		6.9		4.9	J	160		76	
Parameters																				
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l									7.3						5.5			
Total Petroleum Hydrocarbons	TPH	mg/l									*4*	*U*					2.16	J		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03	
			Sample:		GW-SB-BR-02-110-120		GW-SB-BR-02-120-140		GW-SB-BR-02-140-160		GW-SB-BR-03-90-100		GW-SB-BR-03-100-110		GW-SB-BR-03-110-120		GW-SB-BR-03-120-140		GW-SB-BR-03-140-150		GW-SB-BR-03-150-160	
			Start Depth (ft):		110		120		140		90		100		110		120		140		150		160	
			End Depth (ft):		120		140		160		100		110		120		140		150		160	
			Sample Date:		10/13/2022		10/14/2022		10/20/2022		10/4/2022		10/5/2022		10/6/2022		10/6/2022		10/10/2022		10/10/2022	
VOCs																						
1,1,1-Trichloroethane	71-55-6	ug/l		7.4		*1*	*U*	23		19		3.8		8.5		7.7		0.86	J	6.7	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1-Dichloroethane	75-34-3	ug/l	9.4		0.66	J	18		15		3.3		8		6.7		0.86	J	6.6			
1,1-Dichloroethene	75-35-4	ug/l	3.6		*1*	*U*	*5*	*U*	7.3		*1*	*U*	3.7		2.8		*1*	*U*	2.5			
1,2,3-Trichlorobenzene	87-61-6	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	3.3		2.3		*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.42	J		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloroethane	107-06-2	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	1.9		1.1		*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.24	J
1,3-Dichlorobenzene	541-73-1	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
2-Butanone	78-93-3	ug/l	*10*	*U*	*10*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
2-Hexanone	591-78-6	ug/l	*10*	*U*	*10*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*10*	*U*	*10*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Acetone	67-64-1	ug/l	*10*	*U*	*10*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	6.9	J	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzene	71-43-2	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromochloromethane	74-97-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromodichloromethane	75-27-4	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromoform	75-25-2	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromomethane	74-83-9	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Disulfide	75-15-0	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chlorobenzene	108-90-7	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroethane	75-00-3	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroform	67-66-3	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	1		*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloromethane	74-87-3	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
cis-1,2-Dichloroethene	156-59-2	ug/l	40		1.5		100		170		19		49		33		3		31			
cis-1,3-Dichloropropene	10061-01-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Cyclohexane	110-82-7	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Dibromochloromethane	124-48-1	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	1.5		*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Dichlorodifluoromethane	75-71-8	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Ethylbenzene	100-41-4	ug/l	0.22	J	0.42	J	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Isopropylbenzene	98-82-8	ug/l	0.14	J	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
M, P Xylenes	179601-23-1	ug/l	0.94	J	1.7		*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.22	J		
Methyl Acetate	79-20-9	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l	*1*	*U*	0.6	J	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methylcyclohexane	108-87-2	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methylene Chloride	75-09-2	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	1.5		*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	0.62	J	0.88	J	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.2	J
Styrene	100-42-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Toluene	108-88-3	ug/l	1.5		0.94	J	1.2	J	2.4		7.2		16		*1*	*U*	0.3	J	1.5			
trans-1,2-Dichloroethene	156-60-5	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	0.22	J	0.26	J	0.42	J	*1*	*U*	*1*	*U*	*1*	*U*		
trans-1,3-Dichloropropene	10061-02-6	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Trichloroethene (TCE)	79-01-6	ug/l	7.8		*1*	*U*	22		18		4.2		8.2		5.8		0.26	J	6			
Trichlorofluoromethane	75-69-4	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Vinyl Chloride	75-01-4	ug/l	*1*	*U*	*1*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	1.1			
SVOCs																						
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	*5*	*U*	*4.8*	*U*	*5*	*U*	*4.9*	*U*	*10*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	7.5		0.83	J	18		22		3.8	J	10		8.8		1.4	J	6.8			
1-methylnaphthalene	90-12-0	ug/l	45		16		*5*	*U*	*4.9*	*U*	*10*	*U*	*10*	*U*	4.9	J	*5*	*U*	6.4			
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	*5*	*U*	*4.8*	*U*	*5*	*U*	*4.9*	*U*	*10*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
2,4,5-Trichlorophenol	95-95-4	ug/l	*5*	*U*	*4.8*	*U*	*5*	*U*	*4.9*	*U*	*10*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
2,4,6-Trichlorophenol	88-06-2	ug/l	*5*	*U*	*4.8*	*U*	*5*	*U*	*4.9*	*U*	*10*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
2,4-Dichlorophenol	120-83-2	ug/l	*5*	*U*	*4.8*	*U*	*5*	*U*	*4.9*	*U*	*10*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
2,4-Dimethylphenol	105-67-9	ug/l	*5*	*U*	*4.8*	*U*	*5*	*U*	*4.9*	*U*	*10*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
2,4-Dinitrophenol	51-28-5	ug/l	*10*	*U*	*9.7*	*U*	*10*	*U*	*9.9*	*U*	*21*	*U*	*20*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-02		SB-BR-02		SB-BR-02		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03		SB-BR-03	
			Sample:	GW-SB-BR-02-110-120		GW-SB-BR-02-120-140		GW-SB-BR-02-140-160		GW-SB-BR-03-90-100		GW-SB-BR-03-100-110		GW-SB-BR-03-110-120		GW-SB-BR-03-120-140		GW-SB-BR-03-140-150		GW-SB-BR-03-150-160			
			Start Depth (ft):	110		120		140		90		100		110		120		140		150		160			
			End Depth (ft):	120		140		160		100		110		120		140		150		160			
			Sample Date:	10/13/2022		10/14/2022		10/20/2022		10/4/2022		10/5/2022		10/6/2022		10/6/2022		10/10/2022		10/10/2022			
2,4-Dinitrotoluene	121-14-2	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
2,6-Dinitrotoluene	606-20-2	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
2-Chloronaphthalene	91-58-7	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
2-Chlorophenol	95-57-8	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
2-Methylnaphthalene	91-57-6	ug/l	66		30		2.7	J	4.9	U	10	U	10	U	5	U	5	U	5.7			
2-Methylphenol (O-Cresol)	95-48-7	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
2-Nitroaniline	88-74-4	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
2-Nitrophenol	88-75-5	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
3,3'-Dichlorobenzidine	91-94-1	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
3-Nitroaniline	99-09-2	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
4-Chloro-3-Methylphenol	59-50-7	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
4-Chloroaniline	106-47-8	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
4-Methylphenol (P-Cresol)	106-44-5	ug/l	15		9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
4-Nitroaniline	100-01-6	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
4-Nitrophenol	100-02-7	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Acenaphthene	83-32-9	ug/l	62		24		3.4	J	4	J	10	U	5.6	J	17		5	U	8.8			
Acenaphthylene	208-96-8	ug/l	3.3	J	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Acetophenone	98-86-2	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Anthracene	120-12-7	ug/l	5.7		4.8	U	5	U	4.9	U	10	U	10	U	4.2	J	5	U	5	U		
Atrazine	1912-24-9	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Benzaldehyde	100-52-7	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Benzo(a)anthracene	56-55-3	ug/l	5		4.8	U	5	U	4.9	U	10	U	10	U	9.8		5	U	5	U		
Benzo(a)pyrene	50-32-8	ug/l	5	U	4.8	U		R	4.9	U	10	U	10	U	4.6	J	5	U	5	U		
Benzo(b)fluoranthene	205-99-2	ug/l	5	U	4.8	U		R	4.9	U	10	U	10	U	6.3		5	U	5	U		
Benzo(g,h,i)perylene	191-24-2	ug/l	5	U	4.8	U		R	4.9	U	10	U	10	U	5	U	5	U	5	U		
Benzo(k)fluoranthene	207-08-9	ug/l	5	U	4.8	U		R	4.9	U	10	U	10	U	5	U	5	U	5	U		
Benzyl Butyl Phthalate	85-68-7	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Biphenyl (Diphenyl)	92-52-4	ug/l	20		6.3		5	U	4.9	U	10	U	10	U	3.8	J	5	U	5	U		
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	5	U	4.8	U	5	U	4.9	U	11		10	U	5	U	5	U	5	U		
Caprolactam	105-60-2	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Carbazole	86-74-8	ug/l	7.9	J	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Chrysene	218-01-9	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	4.5	J	5	U	5	U		
Dibenz(a,h)anthracene	53-70-3	ug/l	5	U	4.8	U		R	4.9	U	10	U	10	U	5	U	5	U	5	U		
Dibenzofuran	132-64-9	ug/l	49		18		5	U	2.9	J	10	U	10	U	16		5	U	6.9			
Diethyl Phthalate	84-66-2	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Dimethyl Phthalate	131-11-3	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Di-N-Butyl Phthalate	84-74-2	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Di-N-Octylphthalate	117-84-0	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Fluoranthene	206-44-0	ug/l	28		8.5		6.7		4.9	U	10	U	10	U	49		5	U	5	U		
Fluorene	86-73-7	ug/l	49		20		3	J	2.7	J	10	U	10	U	22		5	U	6.5			
Hexachlorobenzene	118-74-1	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Hexachlorobutadiene	87-68-3	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Hexachlorocyclopentadiene	77-47-4	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Hexachloroethane	67-72-1	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	5	U	4.8	U		R	4.9	U	10	U	10	U	5	U	5	U	5	U		
Isophorone	78-59-1	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Naphthalene	91-20-3	ug/l	92		64		2.9	J	7.1		10		8.5	J	6		5	U	28			
Nitrobenzene	98-95-3	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
N-Nitrosodiphenylamine	86-30-6	ug/l	5	U	4.8	U	5	U	4.9	U	10	U	10	U	5	U	5	U	5	U		
Pentachlorophenol	87-86-5	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Phenanthrene	85-01-8	ug/l	76		38		7.4		4.9	U	10	U	8.8	J	76		5	U	12			
Phenol	108-95-2	ug/l	10	U	9.7	U	10	U	9.9	U	21	U	20	U	10	U	10	U	10	U		
Pyrene	129-00-0	ug/l	19		5.1		4.2	J	4.9	U	10	U	10	U	33		5	U	5	U		
Parameters																						
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l																				
Total Petroleum Hydrocarbons	TPH	mg/l																				

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-06		SB-BR-06	
			Sample:		GW-SB-BR-04-120-130		GW-SB-BR-04-130-140		GW-SB-BR-04-140-160		GW-SB-BR-05-90-100		GW-SB-BR-05-100-120		GW-SB-BR-05-120-130		GW-SB-BR-05-130-140		GW-SB-BR-06-70-90		GW-SB-BR-06-70-90-1	
			Start Depth (ft):		120		130		140		90		100		120		130		140		70		70	
			End Depth (ft):		130		140		160		100		120		130		140		90		90	
			Sample Date:		10/28/2022		11/17/2022		11/15/2022		12/19/2022		12/20/2022		12/21/2022		1/10/2023		1/4/2023		1/4/2023	
VOCs																						
1,1,1-Trichloroethane	71-55-6	ug/l	10		5		0.88		12		20		*1*	*U*	17		*1*	*U*	*1*	*U*		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,1,2-Trichloroethane	79-00-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,1-Dichloroethane	75-34-3	ug/l	9.2		5		2.4		9.3		14		1.3		13		*1*	*U*	*1*	*U*		
1,1-Dichloroethene	75-35-4	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	6.6		*1*	*U*	*1*	*U*		
1,2,3-Trichlorobenzene	87-61-6	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2,3-Trichloropropane	96-18-4	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2,4-Trichlorobenzene	120-82-1	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2,4-Trimethylbenzene	95-63-6	ug/l	0.12	J	*0.5*	*U*	0.34	J	1.1		2.3		7.9		0.48	J	*1*	*U*	*1*	*U*		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2-Dibromoethane	106-93-4	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2-Dichlorobenzene	95-50-1	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2-Dichloroethane	107-06-2	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	0.62	J	*1*	*U*	*1*	*U*	0.8	J	*1*	*U*	*1*	*U*		
1,2-Dichloropropane	78-87-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*1*	*U*	*0.5*	*U*	0.17	J	0.54	J	1		3.9		*1*	*U*	*1*	*U*	*1*	*U*		
1,3-Dichlorobenzene	541-73-1	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,4-Dichlorobenzene	106-46-7	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
2-Butanone	78-93-3	ug/l	*10*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
2-Hexanone	591-78-6	ug/l	*10*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
4-Methyl-2-Pentanone	108-10-1	ug/l	*10*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
Acetone	67-64-1	ug/l	*10*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
Benzene	71-43-2	ug/l	0.34	J	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromochloromethane	74-97-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromodichloromethane	75-27-4	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromoform	75-25-2	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromomethane	74-83-9	ug/l	*1*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Carbon Disulfide	75-15-0	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Carbon Tetrachloride	56-23-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chlorobenzene	108-90-7	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chloroethane	75-00-3	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chloroform	67-66-3	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chloromethane	74-87-3	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
cis-1,2-Dichloroethene	156-59-2	ug/l	35		20		2.4		51		71		3.3		68		0.7	J	0.7	J		
cis-1,3-Dichloropropene	10061-01-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Cyclohexane	110-82-7	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Dibromochloromethane	124-48-1	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.4	J	0.48	J		
Dichlorodifluoromethane	75-71-8	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Ethylbenzene	100-41-4	ug/l	*1*	*U*	*0.5*	*U*	0.44	J	*1*	*U*	0.6	J	2.1		*1*	*U*	*1*	*U*	*1*	*U*		
Isopropylbenzene	98-82-8	ug/l	*1*	*U*	*0.5*	*U*	0.07	J	*1*	*U*	*1*	*U*	0.34	J	*1*	*U*	*1*	*U*	*1*	*U*		
M, P Xylenes	179601-23-1	ug/l	*1*	*U*	*0.5*	*U*	0.78		*1*	*U*	2.3		8.4		*1*	*U*	*1*	*U*	*1*	*U*		
Methyl Acetate	79-20-9	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Methyl tert-Butyl Ether	1634-04-4	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Methylcyclohexane	108-87-2	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Methylene Chloride	75-09-2	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	1.3		*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	*1*	*U*	*0.5*	*U*	0.61		*1*	*U*	1.1		4		*1*	*U*	*1*	*U*	*1*	*U*		
Styrene	100-42-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.22	J	0.28	J		
Tetrachloroethene (PCE)	127-18-4	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Toluene	108-88-3	ug/l	2.2		*0.5*	*U*	1.1		7.1		2.1		11		4.6		5.5		5.2			
trans-1,2-Dichloroethene	156-60-5	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
trans-1,3-Dichloropropene	10061-02-6	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Trichloroethene (TCE)	79-01-6	ug/l	16		7.7		0.74		12		18		0.34	J	16		0.66	J	0.64	J		
Trichlorofluoromethane	75-69-4	ug/l	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Vinyl Chloride	75-01-4	ug/l	0.7	J	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
SVOCs																						
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	*5.2*	*U*	*5.1*	*U*	*5*	*U*	*5.2*	*U*	*5.3*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*4.9*	*U*		
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	12		13		7.3		11		2.1		15		16		*2*	*U*	*2*	*U*		
1-methylnaphthalene	90-12-0	ug/l	3.5	J	*5.1*	*U*	16		10		42		8.7		5	J	*5*	*U*	*4.9*	*U*		
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	*5.2*	*U*	*5.1*	*U*	*5*	*U*	*5.2*	*U*	*5.3*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*4.9*	*U*		
2,4,5-Trichlorophenol	95-95-4	ug/l	*5.2*	*U*	*5.1*	*U*	*5*	*U*	*5.2*	*U*	*5.3*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*4.9*	*U*		
2,4,6-Trichlorophenol	88-06-2	ug/l	*5.2*	*U*	*5.1*	*U*	*5*	*U*	*5.2*	*U*	*5.3*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*4.9*	*U*		
2,4-Dichlorophenol	120-83-2	ug/l	*5.2*	*U*	*5.1*	*U*	*5*	*U*	*5.2*	*U*	*5.3*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*4.9*	*U*		
2,4-Dimethylphenol	105-67-9	ug/l	*5.2*	*U*	*5.1*	*U*	*5*	*U*	*5.2*	*U*	*5.3*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*4.9*	*U*		
2,4-Dinitrophenol	51-28-5	ug/l	*10*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*	*11*	*U*	*9.9*	*U*	*10*	*U*	*10*	*U*	*9.8*	*U*		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-04		SB-BR-04		SB-BR-04		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-05		SB-BR-06		SB-BR-06	
			Sample:		GW-SB-BR-04-120-130		GW-SB-BR-04-130-140		GW-SB-BR-04-140-160		GW-SB-BR-05-90-100		GW-SB-BR-05-100-120		GW-SB-BR-05-120-130		GW-SB-BR-05-130-140		GW-SB-BR-06-70-90		GW-SB-BR-06-70-90-1	
			Start Depth (ft):		120		130		140		90		100		120		130		140		70		70	
			End Depth (ft):		130		140		160		100		120		130		140		90		90	
			Sample Date:		10/28/2022		11/17/2022		11/15/2022		12/19/2022		12/20/2022		12/21/2022		1/10/2023		1/4/2023		1/4/2023	
2,4-Dinitrotoluene	121-14-2	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
2,6-Dinitrotoluene	606-20-2	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
2-Chloronaphthalene	91-58-7	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
2-Chlorophenol	95-57-8	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
2-Methylnaphthalene	91-57-6	ug/l	7.5		5.1	U	5.5		19		61		15		6.1		5	U	4.9	U		
2-Methylphenol (O-Cresol)	95-48-7	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
2-Nitroaniline	88-74-4	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
2-Nitrophenol	88-75-5	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
3,3'-Dichlorobenzidine	91-94-1	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
3-Nitroaniline	99-09-2	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
4-Chloro-3-Methylphenol	59-50-7	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
4-Chloroaniline	106-47-8	ug/l	10	U	10	U	11		10	U	11	U	9.9	U	10	U	10	U	9.8	U		
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
4-Methylphenol (P-Cresol)	106-44-5	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
4-Nitroaniline	100-01-6	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
4-Nitrophenol	100-02-7	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Acenaphthene	83-32-9	ug/l	5.8		5.1	U	26		17		47		9.8		8		5	U	4.9	U		
Acenaphthylene	208-96-8	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Acetophenone	98-86-2	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Anthracene	120-12-7	ug/l	5.2	U	5.1	U	5	U	5.2	U	3.1	J	5	U	5.2	U	5	U	4.9	U		
Atrazine	1912-24-9	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Benzaldehyde	100-52-7	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Benzo(a)anthracene	56-55-3	ug/l	5.2	U	5.1	U	5	U	5.2	U	3.3	J	5	U	5.2	U	5	U	4.9	U		
Benzo(a)pyrene	50-32-8	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Benzo(b)fluoranthene	205-99-2	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Benzo(g,h,i)perylene	191-24-2	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Benzo(k)fluoranthene	207-08-9	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Benzyl Butyl Phthalate	85-68-7	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Biphenyl (Diphenyl)	92-52-4	ug/l	5.2	U	5.1	U	5.3		3.6	J	11		2.5	J	5.2	U	5	U	4.9	U		
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	5.2	U	5.1	U	5	U	12		5.3	U	5	U	5.2	U	7.9		4.9	U		
Caprolactam	105-60-2	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Carbazole	86-74-8	ug/l	10	U	10	U	3.8	J	10	U	7.3	J	9.9	U	10	U	10	U	9.8	U		
Chrysene	218-01-9	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Dibenz(a,h)anthracene	53-70-3	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Dibenzofuran	132-64-9	ug/l	4.5	J	5.1	U	17		11		27		5.9		5.4		5	U	4.9	U		
Diethyl Phthalate	84-66-2	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Dimethyl Phthalate	131-11-3	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Di-N-Butyl Phthalate	84-74-2	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Di-N-Octylphthalate	117-84-0	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Fluoranthene	206-44-0	ug/l	5.2	U	5.1	U	6		7.2		28		5	U	3.7	J	5	U	4.9	U		
Fluorene	86-73-7	ug/l	4.8	J	5.1	U	15		11		27		4.2	J	5.6		5	U	4.9	U		
Hexachlorobenzene	118-74-1	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Hexachlorobutadiene	87-68-3	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Hexachlorocyclopentadiene	77-47-4	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Hexachloroethane	67-72-1	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Isophorone	78-59-1	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Naphthalene	91-20-3	ug/l	6.9		5.1	U	35		61		74		76		28		5	U	4.9	U		
Nitrobenzene	98-95-3	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
N-Nitrosodiphenylamine	86-30-6	ug/l	5.2	U	5.1	U	5	U	5.2	U	5.3	U	5	U	5.2	U	5	U	4.9	U		
Pentachlorophenol	87-86-5	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Phenanthrene	85-01-8	ug/l	9.4		7.5		24		23		57		4.6	J	11		5	U	4.9	U		
Phenol	108-95-2	ug/l	10	U	10	U	9.9	U	10	U	11	U	9.9	U	10	U	10	U	9.8	U		
Pyrene	129-00-0	ug/l	5.2	U	5.1	U	5	U	4.4	J	17		5	U	5.2	U	5	U	4.9	U		
Parameters																						
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l																				
Total Petroleum Hydrocarbons	TPH	mg/l																				

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

Location:			SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-10		SB-BR-10	
Sample:			GW-SB-BR-06-90-100		GW-SB-BR-06-100-120		GW-SB-BR-06-120-140		GW-SB-BR-06-140-160		GW-SB-BR-07-90-100		GW-SB-BR-07-100-120		GW-SB-BR-07-120-140		GW-SB-BR-10-105-115		GW-SB-BR-10-115-125	
Start Depth (ft):			90		100		120		140		90		100		120		105		115	
End Depth (ft):			100		120		140		160		100		120		140		115		125	
Sample Date:			1/13/2023		1/12/2023		1/12/2023		1/12/2023		1/11/2023		1/11/2023		1/11/2023		11/7/2022		11/7/2022	
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	29		27		13		9		3	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1-Dichloroethane	75-34-3	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	23		22		12		7.5		5.2	
1,1-Dichloroethene	75-35-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	12		11		*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichlorobenzene	87-61-6	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	0.96	J	3		4.9		1.8		0.68	J
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloroethane	107-06-2	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	1.4		*1*	*U*	0.7	J	*1*	*U*	*1*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	0.58	J	1.9		2.7		1.2		0.52	J
1,3-Dichlorobenzene	541-73-1	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
2-Butanone	78-93-3	ug/l	*50*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
2-Hexanone	591-78-6	ug/l	*50*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*50*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Acetone	67-64-1	ug/l	*50*	*U*	*50*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzene	71-43-2	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromochloromethane	74-97-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromodichloromethane	75-27-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromoform	75-25-2	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromomethane	74-83-9	ug/l	*5*	*U*	*5*	*U*	*1*	*UJ*	*1*	*UJ*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Disulfide	75-15-0	ug/l	*5*	*U*	*5*	*U*	0.4	J	0.58	J	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chlorobenzene	108-90-7	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroethane	75-00-3	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroform	67-66-3	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloromethane	74-87-3	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
cis-1,2-Dichloroethene	156-59-2	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	120		120		40		25		9.3	
cis-1,3-Dichloropropene	10061-01-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Cyclohexane	110-82-7	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Dibromochloromethane	124-48-1	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.68	J
Dichlorodifluoromethane	75-71-8	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Ethylbenzene	100-41-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	1.3		0.48	J	0.46	J
Isopropylbenzene	98-82-8	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.3	J	0.3	J	*1*	*U*
M, P Xylenes	179601-23-1	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.68	J	4.9		2.4		1.2	
Methyl Acetate	79-20-9	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l	*5*	*U*	*5*	*U*	0.68	J	*1*	*U*	*1*	*U*	*1*	*U*	0.5	J	*1*	*U*	*1*	*U*
Methylcyclohexane	108-87-2	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methylene Chloride	75-09-2	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.4	J	2.7		1.8		1.2	
Styrene	100-42-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Toluene	108-88-3	ug/l	13		53		16		16		6.4		3.3		2.6		1.5		2.7	
trans-1,2-Dichloroethene	156-60-5	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
trans-1,3-Dichloropropene	10061-02-6	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Trichloroethene (TCE)	79-01-6	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	29		28		12		7.7		1.6	
Trichlorofluoromethane	75-69-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Vinyl Chloride	75-01-4	ug/l	*5*	*U*	*5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	2.9		4.6	
SVOCs																				
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.3*	*U*	*5.2*	*U*	*5.2*	*U*	*5.4*	*U*
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	0.81	J	1.1	J	*2*	*U*	*2*	*U*	24		22		13		10		4.1	
1-methylnaphthalene	90-12-0	ug/l	*5.2*	*U*	2.5	J	*5*	*U*	*5*	*U*	17		55		52		26		20	
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.3*	*U*	*5.2*	*U*	*5.2*	*U*	*5.4*	*U*
2,4,5-Trichlorophenol	95-95-4	ug/l	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.3*	*U*	*5.2*	*U*	*5.2*	*U*	*5.4*	*U*
2,4,6-Trichlorophenol	88-06-2	ug/l	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.3*	*U*	*5.2*	*U*	*5.2*	*U*	*5.4*	*U*
2,4-Dichlorophenol	120-83-2	ug/l	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.3*	*U*	*5.2*	*U*	*5.2*	*U*	*5.4*	*U*
2,4-Dimethylphenol	105-67-9	ug/l	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.3*	*U*	*5.2*	*U*	*5.2*	*U*	*5.4*	*U*
2,4-Dinitrophenol	51-28-5	ug/l	*10*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*11*	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-06		SB-BR-07		SB-BR-07		SB-BR-07		SB-BR-10		SB-BR-10	
			Sample:		GW-SB-BR-06-90-100		GW-SB-BR-06-100-120		GW-SB-BR-06-120-140		GW-SB-BR-06-140-160		GW-SB-BR-07-90-100		GW-SB-BR-07-100-120		GW-SB-BR-07-120-140		GW-SB-BR-10-105-115		GW-SB-BR-10-115-125	
			Start Depth (ft):		90		100		120		140		90		100		120		105		115	
			End Depth (ft):		100		120		140		160		100		120		140		115		125	
			Sample Date:		1/13/2023		1/12/2023		1/12/2023		1/12/2023		1/11/2023		1/11/2023		1/11/2023		11/7/2022		11/7/2022	
2,4-Dinitrotoluene	121-14-2	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
2,6-Dinitrotoluene	606-20-2	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
2-Chloronaphthalene	91-58-7	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
2-Chlorophenol	95-57-8	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
2-Methylnaphthalene	91-57-6	ug/l	5.2	U	4.3	J	5	U	5	U	16		50		52		6.1		12			
2-Methylphenol (O-Cresol)	95-48-7	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
2-Nitroaniline	88-74-4	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
2-Nitrophenol	88-75-5	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
3,3'-Dichlorobenzidine	91-94-1	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
3-Nitroaniline	99-09-2	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
4-Chloro-3-Methylphenol	59-50-7	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
4-Chloroaniline	106-47-8	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
4-Methylphenol (P-Cresol)	106-44-5	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
4-Nitroaniline	100-01-6	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
4-Nitrophenol	100-02-7	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Acenaphthene	83-32-9	ug/l	5.2	U	3.4	J	5	U	5	U	33		120		99		27		44			
Acenaphthylene	208-96-8	ug/l	5.2	U	5	U	5	U	5	U	5	U	3.8	J	3.1	J	5.2	U	5.4	U		
Acetophenone	98-86-2	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Anthracene	120-12-7	ug/l	5.2	U	5	U	5	U	5	U	5	U	10		6.5		5.2	U	5.4	U		
Atrazine	1912-24-9	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Benzaldehyde	100-52-7	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Benzo(a)anthracene	56-55-3	ug/l	5.2	U	5	U	5	U	5	U	5	U	8.5		5.2	U	5.2	U	5.4	U		
Benzo(a)pyrene	50-32-8	ug/l	5.2	U	5	U	5	U	5	U	5	U	3.2	J	5.2	U		R	5.4	U		
Benzo(b)fluoranthene	205-99-2	ug/l	5.2	U	5	U	5	U	5	U	5	U	4.7	J	5.2	U		R	5.4	U		
Benzo(g,h,i)perylene	191-24-2	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U		R	5.4	U		
Benzo(k)fluoranthene	207-08-9	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U		R	5.4	U		
Benzyl Butyl Phthalate	85-68-7	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Biphenyl (Diphenyl)	92-52-4	ug/l	5.2	U	5	U	5	U	5	U	8.3		30		24		7.7		11			
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Caprolactam	105-60-2	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Carbazole	86-74-8	ug/l	10	U	10	U	9.9	U	10	U	10	U	6.8	J	8.6	J	4.5	J	11	U		
Chrysene	218-01-9	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3		5.2	U	5.2	U	5.4	U		
Dibenz(a,h)anthracene	53-70-3	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U		R	5.4	U		
Dibenzofuran	132-64-9	ug/l	5.2	U	5	U	5	U	5	U	24		79		63		22		35			
Diethyl Phthalate	84-66-2	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Dimethyl Phthalate	131-11-3	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Di-N-Butyl Phthalate	84-74-2	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Di-N-Octylphthalate	117-84-0	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Fluoranthene	206-44-0	ug/l	5.2	U	3.9	J	5	U	5	U	16		58		28		5.2	U	20			
Fluorene	86-73-7	ug/l	5.2	U	5	U	5	U	5	U	24		79		67		17		35			
Hexachlorobenzene	118-74-1	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Hexachlorobutadiene	87-68-3	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Hexachlorocyclopentadiene	77-47-4	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Hexachloroethane	67-72-1	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U		R	5.4	U		
Isophorone	78-59-1	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Naphthalene	91-20-3	ug/l	5.2	U	10		5	U	5	U	28		99		190		150		39			
Nitrobenzene	98-95-3	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
N-Nitrosodiphenylamine	86-30-6	ug/l	5.2	U	5	U	5	U	5	U	5	U	5.3	U	5.2	U	5.2	U	5.4	U		
Pentachlorophenol	87-86-5	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Phenanthrene	85-01-8	ug/l	4	J	6.7		8		6.3		37		170		130		29		75			
Phenol	108-95-2	ug/l	10	U	10	U	9.9	U	10	U	10	U	11	U	10	U	10	U	11	U		
Pyrene	129-00-0	ug/l	5.2	U	5	U	5	U	5	U	9.6		36		16		5.2	U	13			
Parameters																						
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l																				
Total Petroleum Hydrocarbons	TPH	mg/l																				

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-12		SB-BR-12	
			Sample:		GW-SB-BR-10-125-135		GW-SB-BR-10-135-140		GW-SB-BR-10-135-140-1		GW-SB-BR-10-140-160		GW-SB-BR-11-110-120		GW-SB-BR-11-120-140		GW-SB-BR-11-140-160		GW-SB-BR-12-115-140		GW-SB-BR-12-140-160	
			Start Depth (ft):		125		135		135		140		110		120		140		115		140	
			End Depth (ft):		135		140		140		160		120		140		160		140		160	
			Sample Date:		11/8/2022		11/15/2022		11/15/2022		11/15/2022		12/13/2022		12/12/2022		12/12/2022		11/14/2022		11/14/2022	
VOCs																						
1,1,1-Trichloroethane	71-55-6	ug/l	5.3		4.2		3.7		1.9	J	7.2		5.2		3		4		2.5	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,1,2-Trichloroethane	79-00-5	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,1-Dichloroethane	75-34-3	ug/l	7		5.3		5		1.8	J	11		11		6.2		8.9		3.5	
1,1-Dichloroethene	75-35-4	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2,3-Trichlorobenzene	87-61-6	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2,3-Trichloropropane	96-18-4	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2,4-Trichlorobenzene	120-82-1	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2,4-Trimethylbenzene	95-63-6	ug/l	1.7		1.3		1.2		1.1	J	6		6.3		2.9		0.32	J	2.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2-Dibromoethane	106-93-4	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2-Dichlorobenzene	95-50-1	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2-Dichloroethane	107-06-2	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,2-Dichloropropane	78-87-5	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	1.2		1.2		1.1		1.1	J	3.5		3.7		1.6		1	U	2.5	U
1,3-Dichlorobenzene	541-73-1	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
1,4-Dichlorobenzene	106-46-7	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
2-Butanone	78-93-3	ug/l	10	U	10	U	10	U	25	U	10	U	10	U	10	U	10	U	25	U
2-Hexanone	591-78-6	ug/l	10	U	10	U	10	U	25	U	10	U	10	U	10	U	10	U	25	U
4-Methyl-2-Pentanone	108-10-1	ug/l	10	U	10	U	10	U	25	U	10	U	10	U	10	U	10	U	25	U
Acetone	67-64-1	ug/l	10	U	10	U	10	U	25	U	10	U	10	U	10	U	10	U	25	U
Benzene	71-43-2	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Bromochloromethane	74-97-5	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Bromodichloromethane	75-27-4	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Bromoform	75-25-2	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Bromomethane	74-83-9	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Carbon Disulfide	75-15-0	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Carbon Tetrachloride	56-23-5	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Chlorobenzene	108-90-7	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Chloroethane	75-00-3	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Chloroform	67-66-3	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Chloromethane	74-87-3	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
cis-1,2-Dichloroethene	156-59-2	ug/l	15		13		11		4.3		31		25		23		23		7.9	J+
cis-1,3-Dichloropropene	10061-01-5	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Cyclohexane	110-82-7	ug/l	1	UJ	1	UJ	1	UJ	2.5	UJ	1	U	1	U	1	U	1	UJ	2.5	UJ
Dibromochloromethane	124-48-1	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Dichlorodifluoromethane	75-71-8	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Ethylbenzene	100-41-4	ug/l	0.76	J	0.44	J	0.44	J	2.5	U	1.6		2.1		0.98	J	0.26	J	2.5	U
Isopropylbenzene	98-82-8	ug/l	0.22	J	0.14	J	1	U	2.5	U	0.82	J	0.88	J	1	U	0.2	J	2.5	U
M, P Xylenes	179601-23-1	ug/l	2.5		1.4		1.4		2.5	U	6.9		8.1		4.1		0.7	J	2.5	U
Methyl Acetate	79-20-9	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l	1	U	1	U	1	U	2.5	U	0.2	J	1	U	1	U	1	U	2.5	U
Methylcyclohexane	108-87-2	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Methylene Chloride	75-09-2	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	1.9		1.1		1		0.33	J	4.7		5.2		2.9		1		0.27	J
Styrene	100-42-5	ug/l	1	U	1	U	1	U	2.5	U	0.46	J	0.58	J	1	U	1	U	2.5	U
Tetrachloroethene (PCE)	127-18-4	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Toluene	108-88-3	ug/l	1.4		4.9		4.6		15		6.1		4.6		20		8.8		62	
trans-1,2-Dichloroethene	156-60-5	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Trichloroethene (TCE)	79-01-6	ug/l	3.2		2.7		2.4		0.8	J	11		6.6		2.1		8.5		1.5	J
Trichlorofluoromethane	75-69-4	ug/l	1	U	1	U	1	U	2.5	U	1	U	1	U	1	U	1	U	2.5	U
Vinyl Chloride	75-01-4	ug/l	4.8		4		3.8		2.5	U	7.1		10		1.7		5.2		2.5	U
SVOCs																						
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	5.1	U	110	U	54	U			4.9	U	4.9	U	4.8	U	5.1	U	5.4	U
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	6.5		43	U	22	U			17		13		9.3		10		2.8	
1-methylnaphthalene	90-12-0	ug/l	33		120		90				69		73		31		9.5		5.4	U
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	5.1	U	110	U	54	U			4.9	U	4.9	U	4.8	U	5.1	U	5.4	U
2,4,5-Trichlorophenol	95-95-4	ug/l	5.1	U	110	U	54	U			4.9	U	4.9	U	4.8	U	5.1	U	5.4	U
2,4,6-Trichlorophenol	88-06-2	ug/l	5.1	U	110	U	54	U			4.9	U	4.9	U	4.8	U	5.1	U	5.4	U
2,4-Dichlorophenol	120-83-2	ug/l	5.1	U	110	U	54	U			4.9	U	4.9	U	4.8	U	5.1	U	5.4	U
2,4-Dimethylphenol	105-67-9	ug/l	5.1	U	110	U	54	U			4.9	U	4.9	U	4.8	U	5.1	U	5.4	U
2,4-Dinitrophenol	51-28-5	ug/l	10	U	220	U	110	U			9.8	U	9.8	U	9.6	U	10	U	11	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-10		SB-BR-11		SB-BR-11		SB-BR-11		SB-BR-12		SB-BR-12	
			Sample:		GW-SB-BR-10-125-135		GW-SB-BR-10-135-140		GW-SB-BR-10-135-140-1		GW-SB-BR-10-140-160		GW-SB-BR-11-110-120		GW-SB-BR-11-120-140		GW-SB-BR-11-140-160		GW-SB-BR-12-115-140		GW-SB-BR-12-140-160	
			Start Depth (ft):		125		135		135		140		110		120		140		115		140	
			End Depth (ft):		135		140		140		160		120		140		160		140		160	
			Sample Date:		11/8/2022		11/15/2022		11/15/2022		11/15/2022		12/13/2022		12/12/2022		12/12/2022		11/14/2022		11/14/2022	
2,4-Dinitrotoluene	121-14-2	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
2,6-Dinitrotoluene	606-20-2	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
2-Chloronaphthalene	91-58-7	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
2-Chlorophenol	95-57-8	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
2-Methylnaphthalene	91-57-6	ug/l	23		97	J	82				39		32		19		*5.1*	*U*	*5.4*	*U*
2-Methylphenol (O-Cresol)	95-48-7	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
2-Nitroaniline	88-74-4	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
2-Nitrophenol	88-75-5	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
3,3'-Dichlorobenzidine	91-94-1	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
3-Nitroaniline	99-09-2	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
4-Chloro-3-Methylphenol	59-50-7	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
4-Chloroaniline	106-47-8	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
4-Methylphenol (P-Cresol)	106-44-5	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
4-Nitroaniline	100-01-6	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			3.5	J	3.4	J	*9.6*	*U*	*10*	*U*	*11*	*U*
4-Nitrophenol	100-02-7	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Acenaphthene	83-32-9	ug/l	58		370		240				91		87		53		14		*5.4*	*U*
Acenaphthylene	208-96-8	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	3.6	J	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Acetophenone	98-86-2	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Anthracene	120-12-7	ug/l	*5.1*	*U*	80	J	*54*	*U*			6.4		4.8	J	5.6		*5.1*	*U*	*5.4*	*U*
Atrazine	1912-24-9	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Benzaldehyde	100-52-7	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Benzo(a)anthracene	56-55-3	ug/l	*5.1*	*U*	170		*54*	*U*			4	J	*4.9*	*U*	4.8		*5.1*	*U*	*5.4*	*U*
Benzo(a)pyrene	50-32-8	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Benzo(b)fluoranthene	205-99-2	ug/l	*5.1*	*U*	94	J	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Benzo(g,h,i)perylene	191-24-2	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Benzo(k)fluoranthene	207-08-9	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Benzyl Butyl Phthalate	85-68-7	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Biphenyl (Diphenyl)	92-52-4	ug/l	14		*110*	*U*	55				31		29		14		4.7	J	*5.4*	*U*
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Caprolactam	105-60-2	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Carbazole	86-74-8	ug/l	5.6	J	*220*	*U*	*110*	*U*			18		19		14		*10*	*U*	*11*	*U*
Chrysene	218-01-9	ug/l	*5.1*	*U*	96	J	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Dibenz(a,h)anthracene	53-70-3	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Dibenzofuran	132-64-9	ug/l	41		310		190				75		72		45		13		*5.4*	*U*
Diethyl Phthalate	84-66-2	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Dimethyl Phthalate	131-11-3	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Di-N-Butyl Phthalate	84-74-2	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Di-N-Octylphthalate	117-84-0	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Fluoranthene	206-44-0	ug/l	7.5		800		240				34		21		37		5	J	*5.4*	*U*
Fluorene	86-73-7	ug/l	39		380		210				62		61		45		11		*5.4*	*U*
Hexachlorobenzene	118-74-1	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Hexachlorobutadiene	87-68-3	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Hexachlorocyclopentadiene	77-47-4	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Hexachloroethane	67-72-1	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Isophorone	78-59-1	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
Naphthalene	91-20-3	ug/l	110		91	J	87				400		400		230		29		4.9	J
Nitrobenzene	98-95-3	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	*5.4*	*U*
N-Nitrosodiphenylamine	86-30-6	ug/l	*5.1*	*U*	*110*	*U*	*54*	*U*			*4.9*	*U*	*4.9*	*U*	*4.8*	*U*	*5.1*	*U*	4.1	J
Pentachlorophenol	87-86-5	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Phenanthrene	85-01-8	ug/l	57		1300		530				87		110		120		22		7	
Phenol	108-95-2	ug/l	*10*	*U*	*220*	*U*	*110*	*U*			*9.8*	*U*	*9.8*	*U*	*9.6*	*U*	*10*	*U*	*11*	*U*
Pyrene	129-00-0	ug/l	4.5	J	540		160				22		13		24		*5.1*	*U*	*5.4*	*U*
Parameters																				
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l			11		8.5						*4*	*U*						
Total Petroleum Hydrocarbons	TPH	mg/l			4.8		*4*	*U*					*4*	*U*						

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16	
			Sample:	GW-SB-BR-13-120-140		GW-SB-BR-13-140-150		GW-SB-BR-13-190-200		GW-SB-BR-LIF16-83-110		GW-SB-BR-LIF16-110-120		GW-SB-BR-LIF16-110-120-1		GW-SB-BR-LIF16-120-130		GW-SB-BR-LIF16-130-140		GW-SB-BR-LIF16-140-160			
			Start Depth (ft):	120		140		190		83		110		110		120		130		140		160			
			End Depth (ft):	140		150		200		110		120		120		130		140		160			
			Sample Date:	11/22/2022		11/29/2022		12/6/2022		9/21/2022		9/21/2022		9/21/2022		9/21/2022		9/26/2022		9/26/2022			
VOCs																							
1,1,1-Trichloroethane	71-55-6	ug/l	6.8		9.3		*2.5*	*U*	20		11		11		1.6		*1*	*U*	*1*	*U*		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,1,2-Trichloroethane	79-00-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,1-Dichloroethane	75-34-3	ug/l	4.6		6.5		0.62	J	17		12		12		17		0.72	J	*1*	*U*		
1,1-Dichloroethene	75-35-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2,3-Trichlorobenzene	87-61-6	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2,3-Trichloropropane	96-18-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2,4-Trichlorobenzene	120-82-1	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2,4-Trimethylbenzene	95-63-6	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	2.7		2.7		3.4		*1*	*U*	*1*	*U*		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2-Dibromoethane	106-93-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2-Dichlorobenzene	95-50-1	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,2-Dichloroethane	107-06-2	ug/l	*1*	*U*	0.38	J	*2.5*	*U*	0.8	J	0.64	J	0.62	J	0.8	J	*1*	*U*	*1*	*U*		
1,2-Dichloropropane	78-87-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	1.8		1.8		1.8		*1*	*U*	*1*	*U*		
1,3-Dichlorobenzene	541-73-1	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
1,4-Dichlorobenzene	106-46-7	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
2-Butanone	78-93-3	ug/l	*10*	*U*	*10*	*U*	*25*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
2-Hexanone	591-78-6	ug/l	*10*	*U*	*10*	*U*	*25*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
4-Methyl-2-Pentanone	108-10-1	ug/l	*10*	*U*	*10*	*U*	*25*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
Acetone	67-64-1	ug/l	*10*	*U*	*10*	*U*	*25*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*		
Benzene	71-43-2	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromochloromethane	74-97-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromodichloromethane	75-27-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromoform	75-25-2	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Bromomethane	74-83-9	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Carbon Disulfide	75-15-0	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.66	J	0.44	J		
Carbon Tetrachloride	56-23-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chlorobenzene	108-90-7	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chloroethane	75-00-3	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chloroform	67-66-3	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Chloromethane	74-87-3	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
cis-1,2-Dichloroethene	156-59-2	ug/l	18		22		2.2	J	69		47		47		100		2.3		0.6	J		
cis-1,3-Dichloropropene	10061-01-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Cyclohexane	110-82-7	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Dibromochloromethane	124-48-1	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Dichlorodifluoromethane	75-71-8	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Ethylbenzene	100-41-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	0.64	J	0.64	J	1.8		*1*	*U*	*1*	*U*		
Isopropylbenzene	98-82-8	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	0.4	J	*1*	*U*	*1*	*U*		
M, P Xylenes	179601-23-1	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	2.5		2.6		4.7		*1*	*U*	*1*	*U*		
Methyl Acetate	79-20-9	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Methyl tert-Butyl Ether	1634-04-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	1.2		1.2		2		*1*	*U*	*1*	*U*		
Methylcyclohexane	108-87-2	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Methylene Chloride	75-09-2	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	1.7		1.7		3.2		*1*	*U*	*1*	*U*		
Styrene	100-42-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Tetrachloroethene (PCE)	127-18-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Toluene	108-88-3	ug/l	*1*	*U*	1.9		54		8.9		0.92	J	0.96	J	6.1		62		59			
trans-1,2-Dichloroethene	156-60-5	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
trans-1,3-Dichloropropene	10061-02-6	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Trichloroethene (TCE)	79-01-6	ug/l	6.7		8.8		*2.5*	*U*	21		14		14		5.8		*1*	*U*	*1*	*U*		
Trichlorofluoromethane	75-69-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*	*1*	*U*		
Vinyl Chloride	75-01-4	ug/l	*1*	*U*	*1*	*U*	*2.5*	*U*	*1*	*U*	4.8		4.9		38		*1*	*U*	*1*	*U*		
SVOCs																							
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	*5.2*	*U*	*4.9*	*U*	*5.3*	*U*	*4.8*	*U*	*4.8*	*U*	*4.8*	*U*	*5.1*	*U*	*5.1*	*U*	*5*	*U*		
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	6.5		10		0.67	J	20		15		14		9.8		*2*	*U*	*2*	*U*		
1-methylnaphthalene	90-12-0	ug/l	*5.2*	*U*	*4.9*	*U*	*5.3*	*U*	*4.8*	*U*	29		27		34		*5.1*	*U*	*5*	*U*		
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	*5.2*	*U*	*4.9*	*U*	*5.3*	*U*	*4.8*	*U*	*4.8*	*U*	*4.8*	*U*	*5.1*	*U*	*5.1*	*U*	*5*	*U*		
2,4,5-Trichlorophenol	95-95-4	ug/l	*5.2*	*U*	*4.9*	*U*	*5.3*	*U*	*4.8*	*U*	*4.8*	*U*	*4.8*	*U*	*5.1*	*U*	*5.1*	*U*	*5*	*U*		
2,4,6-Trichlorophenol	88-06-2	ug/l	*5.2*	*U*	*4.9*	*U*	*5.3*	*U*	*4.8*	*U*	*4.8*	*U*	*4.8*	*U*	*5.1*	*U*	*5.1*	*U*	*5*	*U*		
2,4-Dichlorophenol	120-83-2	ug/l	*5.2*	*U*	*4.9*	*U*	*5.3*	*U*	*4.8*	*U*	*4.8*	*U*	*4.8*	*U*	*5.1*	*U*	*5.1*	*U*	*5*	*U*		
2,4-Dimethylphenol	105-67-9	ug/l	*5.2*	*U*	*4.9*	*U*	*5.3*	*U*	*4.8*	*U*	*4.8*	*U*	*4.8*	*U*	*5.1*	*U*	*5.1*	*U*	*5*	*U*		
2,4-Dinitrophenol	51-28-5	ug/l	*10*	*U*	*9.8*	*U*	*11*	*U*	*9.6*	*U*	*9.6*	*U*	*9.6*	*U*	*10*	*U*	*10*	*U*	*9.9*	*U*		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-13		SB-BR-13		SB-BR-13		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16		SB-BR-LIF16	
			Sample:		GW-SB-BR-13-120-140		GW-SB-BR-13-140-150		GW-SB-BR-13-190-200		GW-SB-BR-LIF16-83-110		GW-SB-BR-LIF16-110-120		GW-SB-BR-LIF16-110-120-1		GW-SB-BR-LIF16-120-130		GW-SB-BR-LIF16-130-140		GW-SB-BR-LIF16-140-160			
			Start Depth (ft):		120		140		190		83		110		110		120		130		140		160			
			End Depth (ft):		140		150		200		110		120		120		130		140		160			
			Sample Date:		11/22/2022		11/29/2022		12/6/2022		9/21/2022		9/21/2022		9/21/2022		9/21/2022		9/26/2022		9/26/2022			
2,4-Dinitrotoluene	121-14-2	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
2,6-Dinitrotoluene	606-20-2	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
2-Chloronaphthalene	91-58-7	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
2-Chlorophenol	95-57-8	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
2-Methylnaphthalene	91-57-6	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	5.9		5.4		15		5.1	U	5	U				
2-Methylphenol (O-Cresol)	95-48-7	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
2-Nitroaniline	88-74-4	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
2-Nitrophenol	88-75-5	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
3,3'-Dichlorobenzidine	91-94-1	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
3-Nitroaniline	99-09-2	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	UJ	9.9	U				
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
4-Chloro-3-Methylphenol	59-50-7	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
4-Chloroaniline	106-47-8	ug/l	10	U	9.8	U	11	UJ	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
4-Methylphenol (P-Cresol)	106-44-5	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
4-Nitroaniline	100-01-6	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
4-Nitrophenol	100-02-7	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Acenaphthene	83-32-9	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	33		31		37		5.1	U	5	U				
Acenaphthylene	208-96-8	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Acetophenone	98-86-2	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Anthracene	120-12-7	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Atrazine	1912-24-9	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Benzaldehyde	100-52-7	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Benzo(a)anthracene	56-55-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Benzo(a)pyrene	50-32-8	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	UJ	5	U				
Benzo(b)fluoranthene	205-99-2	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	UJ	5	U				
Benzo(g,h,i)perylene	191-24-2	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	UJ	5	U				
Benzo(k)fluoranthene	207-08-9	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	UJ	5	U				
Benzyl Butyl Phthalate	85-68-7	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Biphenyl (Diphenyl)	92-52-4	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	7.9		7.3		7.8		5.1	U	5	U				
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	5.2	U	4.9	U	13		4.8	U	4.8	U	4.8	U	5.1	U	23		4.5	J				
Caprolactam	105-60-2	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Carbazole	86-74-8	ug/l	10	U	9.8	U	11	U	9.6	U	5.2	J	4.8	J	6.6	J	10	U	9.9	U				
Chrysene	218-01-9	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Dibenz(a,h)anthracene	53-70-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	UJ	5	U				
Dibenzofuran	132-64-9	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	22		20		22		5.1	U	5	U				
Diethyl Phthalate	84-66-2	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Dimethyl Phthalate	131-11-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Di-N-Butyl Phthalate	84-74-2	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Di-N-Octylphthalate	117-84-0	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Fluoranthene	206-44-0	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Fluorene	86-73-7	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	17		16		18		5.1	U	5	U				
Hexachlorobenzene	118-74-1	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Hexachlorobutadiene	87-68-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Hexachlorocyclopentadiene	77-47-4	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Hexachloroethane	67-72-1	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	UJ	5	U				
Isophorone	78-59-1	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Naphthalene	91-20-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	170		170		210		4.1	J	5	U				
Nitrobenzene	98-95-3	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
N-Nitrosodiphenylamine	86-30-6	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Pentachlorophenol	87-86-5	ug/l	10	U	9.8	U	11	UJ	9.6	U	9.6	U	9.6	U	10	U	10	U	9.9	U				
Phenanthrene	85-01-8	ug/l	5.2	U	4.4	J	5.3	U	4.8	U	22		21		20		4.4	J	5	U				
Phenol	108-95-2	ug/l	10	U	9.8	U	11	U	9.6	U	9.6	U	9.6	U	10	U	7.1	J	9.9	U				
Pyrene	129-00-0	ug/l	5.2	U	4.9	U	5.3	U	4.8	U	4.8	U	4.8	U	5.1	U	5.1	U	5	U				
Parameters																								
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l																						
Total Petroleum Hydrocarbons	TPH	mg/l																						

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-MW-22		SB-MW-22	
			Sample:	GW-SB-BR-LIF18-110-120		GW-SB-BR-LIF18-130-140		GW-SB-BR-LIF18-140-160		GW-SB-BR-LIF22-90-100		GW-SB-BR-LIF22-100-120		GW-SB-BR-LIF22-120-140		GW-SB-BR-LIF22-140-160		GW-SB-MW-22-120-130		GW-SB-MW-22-130-140	
			Start Depth (ft):	110		130		140		90		100		120		140		120		130	
			End Depth (ft):	120		140		160		100		120		140		160		130		140	
			Sample Date:	9/19/2022		9/28/2022		9/29/2022		9/27/2022		9/28/2022		10/20/2022		10/10/2022		11/21/2022		11/21/2022	
VOCs																					
1,1,1-Trichloroethane	71-55-6	ug/l	*5*	*U*	3.4		0.88	J	25		2.6		5.7		1.6		3.1		*1*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,1-Dichloroethane	75-34-3	ug/l	2	J	4.4		1.2		19		5.3		8.3		2.4		3.2		0.66	J
1,1-Dichloroethene	75-35-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichlorobenzene	87-61-6	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	15		2.2	J	*1*	*U*	*2.5*	*U*	15		1.7	J	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloroethane	107-06-2	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	7.4		1.2	J	*1*	*U*	*2.5*	*U*	7.6		0.9	J	*1*	*U*	*1*	*U*	*1*	*U*
1,3-Dichlorobenzene	541-73-1	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
2-Butanone	78-93-3	ug/l	*50*	*U*	*25*	*U*	*10*	*U*	*25*	*U*	*25*	*U*	*25*	*U*	*10*	*U*	*10*	*U*	17	
2-Hexanone	591-78-6	ug/l	*50*	*U*	*25*	*U*	*10*	*U*	*25*	*U*	*25*	*U*	*25*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*50*	*U*	*25*	*U*	*10*	*U*	*25*	*U*	*25*	*U*	*25*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Acetone	67-64-1	ug/l	*50*	*U*	*25*	*U*	*10*	*U*	*25*	*U*	*25*	*U*	*25*	*U*	7.9	J	*10*	*U*	*10*	*U*
Benzene	71-43-2	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromochloromethane	74-97-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromodichloromethane	75-27-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromoform	75-25-2	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Bromomethane	74-83-9	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Disulfide	75-15-0	ug/l	*5*	*U*	3.5		*1*	*U*	0.73	J	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chlorobenzene	108-90-7	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroethane	75-00-3	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloroform	67-66-3	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Chloromethane	74-87-3	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
cis-1,2-Dichloroethene	156-59-2	ug/l	4.2	J	17		5.4		94		10		43		13		10		2.2	
cis-1,3-Dichloropropene	10061-01-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Cyclohexane	110-82-7	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Dibromochloromethane	124-48-1	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Dichlorodifluoromethane	75-71-8	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Ethylbenzene	100-41-4	ug/l	1.4	J	*2.5*	*U*	*1*	*U*	*2.5*	*U*	3.9		0.37	J	*1*	*U*	*1*	*U*	*1*	*U*
Isopropylbenzene	98-82-8	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
M, P Xylenes	179601-23-1	ug/l	6.4		*2.5*	*U*	*1*	*U*	*2.5*	*U*	15		1.4	J	*1*	*U*	*1*	*U*	*1*	*U*
Methyl Acetate	79-20-9	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	1.3	J	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methylcyclohexane	108-87-2	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Methylene Chloride	75-09-2	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	3.2	J	*2.5*	*U*	*1*	*U*	*2.5*	*U*	7.4		0.7	J	*1*	*U*	*1*	*U*	*1*	*U*
Styrene	100-42-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Toluene	108-88-3	ug/l	13		9.2		41		2.9		4.8		43		37		7.5		7	
trans-1,2-Dichloroethene	156-60-5	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
trans-1,3-Dichloropropene	10061-02-6	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Trichloroethene (TCE)	79-01-6	ug/l	*5*	*U*	4.1		1.4		22		*2.5*	*U*	7.3		1.9		2.6		*1*	*U*
Trichlorofluoromethane	75-69-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	*2.5*	*U*	*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
Vinyl Chloride	75-01-4	ug/l	*5*	*U*	*2.5*	*U*	*1*	*U*	*2.5*	*U*	4.9		*2.5*	*U*	*1*	*U*	*1*	*U*	*1*	*U*
SVOCs																					
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*					
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	*9.6*	*U*	4.7		1.3	J	26		7.9		9.6		2	J					
1-methylnaphthalene	90-12-0	ug/l	120		20		*4.9*	*U*	*5*	*U*	110		18		*5.3*	*U*					
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*					
2,4,5-Trichlorophenol	95-95-4	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*					
2,4,6-Trichlorophenol	88-06-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*					
2,4-Dichlorophenol	120-83-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*					
2,4-Dimethylphenol	105-67-9	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*					
2,4-Dinitrophenol	51-28-5	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*					

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF18		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-BR-LIF22		SB-MW-22		SB-MW-22	
			Sample:		GW-SB-BR-LIF18-110-120		GW-SB-BR-LIF18-130-140		GW-SB-BR-LIF18-140-160		GW-SB-BR-LIF22-90-100		GW-SB-BR-LIF22-100-120		GW-SB-BR-LIF22-120-140		GW-SB-BR-LIF22-140-160		GW-SB-MW-22-120-130		GW-SB-MW-22-130-140	
			Start Depth (ft):		110		130		140		90		100		120		140		120		130	
			End Depth (ft):		120		140		160		100		120		140		160		130		140	
			Sample Date:		9/19/2022		9/28/2022		9/29/2022		9/27/2022		9/28/2022		10/20/2022		10/10/2022		11/21/2022		11/21/2022	
2,4-Dinitrotoluene	121-14-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
2,6-Dinitrotoluene	606-20-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
2-Chloronaphthalene	91-58-7	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
2-Chlorophenol	95-57-8	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
2-Methylnaphthalene	91-57-6	ug/l	270		39		*4.9*	*U*	*5*	*U*	150		31		*5.3*	*U*						
2-Methylphenol (O-Cresol)	95-48-7	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
2-Nitroaniline	88-74-4	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
2-Nitrophenol	88-75-5	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
3,3'-Dichlorobenzidine	91-94-1	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
3-Nitroaniline	99-09-2	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
4-Chloro-3-Methylphenol	59-50-7	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
4-Chloroaniline	106-47-8	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
4-Methylphenol (P-Cresol)	106-44-5	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
4-Nitroaniline	100-01-6	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
4-Nitrophenol	100-02-7	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Acenaphthene	83-32-9	ug/l	190		27		2.6	J	*5*	*U*	140		43		*5.3*	*U*						
Acenaphthylene	208-96-8	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	5.8		*5*	*U*	*5.3*	*U*						
Acetophenone	98-86-2	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Anthracene	120-12-7	ug/l	24		*5*	*U*	*4.9*	*U*	*5*	*U*	8		16		*5.3*	*U*						
Atrazine	1912-24-9	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Benzaldehyde	100-52-7	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Benzo(a)anthracene	56-55-3	ug/l	39		*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	26		*5.3*	*U*						
Benzo(a)pyrene	50-32-8	ug/l	16	J	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	12		*5.3*	*U*						
Benzo(b)fluoranthene	205-99-2	ug/l	24		*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	16		*5.3*	*U*						
Benzo(g,h,i)perylene	191-24-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Benzo(k)fluoranthene	207-08-9	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	6.3		*5.3*	*U*						
Benzyl Butyl Phthalate	85-68-7	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Biphenyl (Diphenyl)	92-52-4	ug/l	41		7.1		*4.9*	*U*	*5*	*U*	37		9.6		*5.3*	*U*						
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	16							
Caprolactam	105-60-2	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Carbazole	86-74-8	ug/l	15	J	3.3	J	*9.8*	*U*	*9.9*	*U*	23		*10*	*U*	*11*	*U*						
Chrysene	218-01-9	ug/l	19	J	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	17		*5.3*	*U*						
Dibenz(a,h)anthracene	53-70-3	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Dibenzofuran	132-64-9	ug/l	150		19		*4.9*	*U*	*5*	*U*	92		33		*5.3*	*U*						
Diethyl Phthalate	84-66-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Dimethyl Phthalate	131-11-3	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Di-N-Butyl Phthalate	84-74-2	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Di-N-Octylphthalate	117-84-0	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Fluoranthene	206-44-0	ug/l	250		11		*4.9*	*U*	*5*	*U*	32		140		*5.3*	*U*						
Fluorene	86-73-7	ug/l	160		20		*4.9*	*U*	*5*	*U*	90		46		*5.3*	*U*						
Hexachlorobenzene	118-74-1	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Hexachlorobutadiene	87-68-3	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Hexachlorocyclopentadiene	77-47-4	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Hexachloroethane	67-72-1	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	3.3	J	*5.3*	*U*						
Isophorone	78-59-1	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Naphthalene	91-20-3	ug/l	560		74		6.3		*5*	*U*	640		58		*5.3*	*U*						
Nitrobenzene	98-95-3	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
N-Nitrosodiphenylamine	86-30-6	ug/l	*24*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*	*5.3*	*U*						
Pentachlorophenol	87-86-5	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Phenanthrene	85-01-8	ug/l	500		39		6.1		*5*	*U*	150		190		*5.3*	*U*						
Phenol	108-95-2	ug/l	*48*	*U*	*10*	*U*	*9.8*	*U*	*9.9*	*U*	*9.8*	*U*	*10*	*U*	*11*	*U*						
Pyrene	129-00-0	ug/l	150		7.2		*4.9*	*U*	*5*	*U*	20		93		*5.3*	*U*						
Parameters																						
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l									*4*	*U*										
Total Petroleum Hydrocarbons	TPH	mg/l									2.48	J										

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:		SB-MW-22		SB-MW-22	
			Sample:		GW-SB-MW-22-140-150		GW-SB-MW-22-150-160	
			Start Depth (ft):		140		150	
			End Depth (ft):		150		160	
			Sample Date:		11/18/2022		11/16/2022	
VOCs								
1,1,1-Trichloroethane	71-55-6	ug/l	*0.5*	*U*	0.16	J
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethane	75-34-3	ug/l	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethene	75-35-4	ug/l	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichlorobenzene	87-61-6	ug/l	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*0.5*	*U*	*0.5*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*0.5*	*U*	*0.5*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	*0.5*	*U*	*0.5*	*U*
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*0.5*	*U*	*0.5*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*0.5*	*U*	*0.5*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*0.5*	*U*	*0.5*	*U*
1,2-Dichloroethane	107-06-2	ug/l	*0.5*	*U*	*0.5*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*0.5*	*U*	*0.5*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*0.5*	*U*	*0.5*	*U*
1,3-Dichlorobenzene	541-73-1	ug/l	*0.5*	*U*	*0.5*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*0.5*	*U*	*0.5*	*U*
2-Butanone	78-93-3	ug/l	*5*	*U*	*5*	*U*
2-Hexanone	591-78-6	ug/l	*5*	*U*	*5*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*5*	*U*	*5*	*U*
Acetone	67-64-1	ug/l	12		*5*	*U*
Benzene	71-43-2	ug/l	*0.5*	*U*	*0.5*	*U*
Bromochloromethane	74-97-5	ug/l	*0.5*	*U*	*0.5*	*U*
Bromodichloromethane	75-27-4	ug/l	*0.5*	*U*	*0.5*	*U*
Bromoform	75-25-2	ug/l	*0.5*	*U*	*0.5*	*U*
Bromomethane	74-83-9	ug/l	*0.5*	*UJ*	*0.5*	*UJ*
Carbon Disulfide	75-15-0	ug/l	*0.5*	*U*	*0.5*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*0.5*	*U*	*0.5*	*U*
Chlorobenzene	108-90-7	ug/l	*0.5*	*U*	*0.5*	*U*
Chloroethane	75-00-3	ug/l	*0.5*	*U*	*0.5*	*U*
Chloroform	67-66-3	ug/l	*0.5*	*U*	*0.5*	*U*
Chloromethane	74-87-3	ug/l	0.46	J	*0.5*	*U*
cis-1,2-Dichloroethene	156-59-2	ug/l	1.1		1.3	
cis-1,3-Dichloropropene	10061-01-5	ug/l	*0.5*	*U*	*0.5*	*U*
Cyclohexane	110-82-7	ug/l	*0.5*	*U*	*0.5*	*U*
Dibromochloromethane	124-48-1	ug/l	*0.5*	*U*	0.28	J
Dichlorodifluoromethane	75-71-8	ug/l	*0.5*	*U*	*0.5*	*U*
Ethylbenzene	100-41-4	ug/l	*0.5*	*U*	*0.5*	*U*
Isopropylbenzene	98-82-8	ug/l	*0.5*	*U*	*0.5*	*U*
M, P Xylenes	179601-23-1	ug/l	*0.5*	*U*	*0.5*	*U*
Methyl Acetate	79-20-9	ug/l	*0.5*	*U*	*0.5*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l	*0.5*	*U*	*0.5*	*U*
Methylcyclohexane	108-87-2	ug/l	*0.5*	*U*	*0.5*	*U*
Methylene Chloride	75-09-2	ug/l	*0.5*	*U*	*0.5*	*U*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	*0.5*	*U*	*0.5*	*U*
Styrene	100-42-5	ug/l	*0.5*	*U*	*0.5*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l	*0.5*	*U*	*0.5*	*U*
Toluene	108-88-3	ug/l	92		8.8	
trans-1,2-Dichloroethene	156-60-5	ug/l	*0.5*	*U*	*0.5*	*U*
trans-1,3-Dichloropropene	10061-02-6	ug/l	*0.5*	*U*	*0.5*	*U*
Trichloroethene (TCE)	79-01-6	ug/l	*0.5*	*U*	*0.5*	*U*
Trichlorofluoromethane	75-69-4	ug/l	*0.5*	*U*	*0.5*	*U*
Vinyl Chloride	75-01-4	ug/l	*0.5*	*U*	*0.5*	*U*
SVOCs						
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l				
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l				
1-methylnaphthalene	90-12-0	ug/l				
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l				
2,4,5-Trichlorophenol	95-95-4	ug/l				
2,4,6-Trichlorophenol	88-06-2	ug/l				
2,4-Dichlorophenol	120-83-2	ug/l				
2,4-Dimethylphenol	105-67-9	ug/l				
2,4-Dinitrophenol	51-28-5	ug/l				

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-2
Groundwater Packer Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-MW-22		SB-MW-22	
			Sample:	GW-SB-MW-22-140-150		GW-SB-MW-22-150-160	
			Start Depth (ft):	140		150	
			End Depth (ft):	150		160	
			Sample Date:	11/18/2022		11/16/2022	
2,4-Dinitrotoluene	121-14-2	ug/l					
2,6-Dinitrotoluene	606-20-2	ug/l					
2-Chloronaphthalene	91-58-7	ug/l					
2-Chlorophenol	95-57-8	ug/l					
2-Methylnaphthalene	91-57-6	ug/l					
2-Methylphenol (O-Cresol)	95-48-7	ug/l					
2-Nitroaniline	88-74-4	ug/l					
2-Nitrophenol	88-75-5	ug/l					
3,3'-Dichlorobenzidine	91-94-1	ug/l					
3-Nitroaniline	99-09-2	ug/l					
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l					
4-Bromophenyl Phenyl Ether	101-55-3	ug/l					
4-Chloro-3-Methylphenol	59-50-7	ug/l					
4-Chloroaniline	106-47-8	ug/l					
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l					
4-Methylphenol (P-Cresol)	106-44-5	ug/l					
4-Nitroaniline	100-01-6	ug/l					
4-Nitrophenol	100-02-7	ug/l					
Acenaphthene	83-32-9	ug/l					
Acenaphthylene	208-96-8	ug/l					
Acetophenone	98-86-2	ug/l					
Anthracene	120-12-7	ug/l					
Atrazine	1912-24-9	ug/l					
Benzaldehyde	100-52-7	ug/l					
Benzo(a)anthracene	56-55-3	ug/l					
Benzo(a)pyrene	50-32-8	ug/l					
Benzo(b)fluoranthene	205-99-2	ug/l					
Benzo(g,h,i)perylene	191-24-2	ug/l					
Benzo(k)fluoranthene	207-08-9	ug/l					
Benzyl Butyl Phthalate	85-68-7	ug/l					
Biphenyl (Diphenyl)	92-52-4	ug/l					
bis(2-Chloroethoxy) Methane	111-91-1	ug/l					
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l					
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l					
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l					
Caprolactam	105-60-2	ug/l					
Carbazole	86-74-8	ug/l					
Chrysene	218-01-9	ug/l					
Dibenz(a,h)anthracene	53-70-3	ug/l					
Dibenzofuran	132-64-9	ug/l					
Diethyl Phthalate	84-66-2	ug/l					
Dimethyl Phthalate	131-11-3	ug/l					
Di-N-Butyl Phthalate	84-74-2	ug/l					
Di-N-Octylphthalate	117-84-0	ug/l					
Fluoranthene	206-44-0	ug/l					
Fluorene	86-73-7	ug/l					
Hexachlorobenzene	118-74-1	ug/l					
Hexachlorobutadiene	87-68-3	ug/l					
Hexachlorocyclopentadiene	77-47-4	ug/l					
Hexachloroethane	67-72-1	ug/l					
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l					
Isophorone	78-59-1	ug/l					
Naphthalene	91-20-3	ug/l					
Nitrobenzene	98-95-3	ug/l					
N-Nitrosodi-N-Propylamine	621-64-7	ug/l					
N-Nitrosodiphenylamine	86-30-6	ug/l					
Pentachlorophenol	87-86-5	ug/l					
Phenanthrene	85-01-8	ug/l					
Phenol	108-95-2	ug/l					
Pyrene	129-00-0	ug/l					
Parameters							
Oil & Grease, Hem-Grav	HEMOILGREASE	mg/l					
Total Petroleum Hydrocarbons	TPH	mg/l					

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-3
Temporary Well Groundwater Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-MW-22		SB-MW-22		SB-MW-22		SB-MW-22		SB-MW-22		SB-MW-22		SB-MW-22	
			Sample:	GW-SB-MW-22-10		GW-SB-MW-22-20		GW-SB-MW-22-30		GW-SB-MW-22-40		GW-SB-MW-22-50		GW-SB-MW-22-60			
			Start Depth (ft):	10		20		30		40		50		60			
			End Depth (ft):	20		30		40		50		60		70			
			Sample Date:	10/31/2022		10/31/2022		11/1/2022		11/1/2022		11/1/2022		11/1/2022			
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**		
VOCs																
1,1,1-Trichloroethane	71-55-6	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,1,2-Trichloroethane	79-00-5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,1-Dichloroethane	75-34-3	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,1-Dichloroethene	75-35-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2,3-Trichlorobenzene	87-61-6	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2,3-Trichloropropane	96-18-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2,4-Trichlorobenzene	120-82-1	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2,4-Trimethylbenzene	95-63-6	ug/l	2.5	U	3.3		3		6.8		2.7		1.3	J		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2-Dibromoethane	106-93-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2-Dichlorobenzene	95-50-1	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2-Dichloroethane	107-06-2	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,2-Dichloropropane	78-87-5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	2.5	U	2.5	U	2.5	U	1.8	J	2.5	U	2.5	U		
1,3-Dichlorobenzene	541-73-1	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
1,4-Dichlorobenzene	106-46-7	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
2-Butanone	78-93-3	ug/l	25	U	25	U	25	U	25	U	25	U	25	U		
2-Hexanone	591-78-6	ug/l	25	U	25	U	25	U	25	U	25	U	25	U		
4-Methyl-2-Pentanone	108-10-1	ug/l	25	U	25	U	25	U	25	U	25	U	25	U		
Acetone	67-64-1	ug/l	25	U	25	U	25	U	25	U	25	U	25	U		
Benzene	71-43-2	ug/l	2.5	U	4.1		1.6	J	2.1	J	11		4.2			
Bromochloromethane	74-97-5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Bromodichloromethane	75-27-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Bromoform	75-25-2	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Bromomethane	74-83-9	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Carbon Disulfide	75-15-0	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Carbon Tetrachloride	56-23-5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Chlorobenzene	108-90-7	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Chloroethane	75-00-3	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Chloroform	67-66-3	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Chloromethane	74-87-3	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
cis-1,2-Dichloroethene	156-59-2	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
cis-1,3-Dichloropropene	10061-01-5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Cyclohexane	110-82-7	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Dibromochloromethane	124-48-1	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Dichlorodifluoromethane	75-71-8	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Ethylbenzene	100-41-4	ug/l	2.5	U	3.8		3.7		5.5		3.2		1.9	J		
Isopropylbenzene	98-82-8	ug/l	2.5	U	2.5	U	2.5	U	0.35	J	1.5	J	0.55	J		
M, P Xylenes	179601-23-1	ug/l	2.5	U	5.1		3.8		12		5.4		2.5	U		
Methyl Acetate	79-20-9	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Methyl tert-Butyl Ether	1634-04-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Methylcyclohexane	108-87-2	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Methylene Chloride	75-09-2	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	2.5	U	6.1		4.1		7.6		11		3.9			
Styrene	100-42-5	ug/l	2.5	U	2.5	U	0.7	J	2.5	U	2.5	U	2.5	U		
Tetrachloroethene (PCE)	127-18-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Toluene	108-88-3	ug/l	12		14		9.4		42		8.7		11			
trans-1,2-Dichloroethene	156-60-5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
trans-1,3-Dichloropropene	10061-02-6	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Trichloroethene (TCE)	79-01-6	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Trichlorofluoromethane	75-69-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		
Vinyl Chloride	75-01-4	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-3
Temporary Well Groundwater Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	SB-MW-22		SB-MW-22		SB-MW-22	
			Sample:	GW-SB-MW-22-70		GW-SB-MW-22-90		GW-SB-MW-22-105	
			Start Depth (ft):	70		90		105	
			End Depth (ft):	80		100		115	
			Sample Date:	11/1/2022		11/2/2022		11/3/2022	
Analyte	**CAS**	**Unit**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
VOCs								
1,1,1-Trichloroethane	71-55-6	ug/l	*1*	*U*	5.1		5.6	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,1-Dichloroethane	75-34-3	ug/l	*1*	*U*	3.4		5.2	
1,1-Dichloroethene	75-35-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichlorobenzene	87-61-6	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	0.36	J	*1*	*U*	*1*	*U*
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloroethane	107-06-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*1*	*U*	*1*	*U*	0.36	J
1,3-Dichlorobenzene	541-73-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
2-Butanone	78-93-3	ug/l	*10*	*U*	*10*	*U*	*10*	*U*
2-Hexanone	591-78-6	ug/l	*10*	*U*	*10*	*U*	*10*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*10*	*U*	*10*	*U*	*10*	*U*
Acetone	67-64-1	ug/l	*10*	*U*	*10*	*U*	*10*	*U*
Benzene	71-43-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Bromochloromethane	74-97-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Bromodichloromethane	75-27-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Bromoform	75-25-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Bromomethane	74-83-9	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Disulfide	75-15-0	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Chlorobenzene	108-90-7	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Chloroethane	75-00-3	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Chloroform	67-66-3	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Chloromethane	74-87-3	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
cis-1,2-Dichloroethene	156-59-2	ug/l	*1*	*U*	16		21	
cis-1,3-Dichloropropene	10061-01-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Cyclohexane	110-82-7	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Dibromochloromethane	124-48-1	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Dichlorodifluoromethane	75-71-8	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Ethylbenzene	100-41-4	ug/l	0.2	J	*1*	*U*	*1*	*U*
Isopropylbenzene	98-82-8	ug/l	*1*	*U*	*1*	*U*	0.16	J
M, P Xylenes	179601-23-1	ug/l	*1*	*U*	*1*	*U*	1	
Methyl Acetate	79-20-9	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Methylcyclohexane	108-87-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Methylene Chloride	75-09-2	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	0.3	J	*1*	*U*	1.1	
Styrene	100-42-5	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Toluene	108-88-3	ug/l	4.1		1.3		2	
trans-1,2-Dichloroethene	156-60-5	ug/l	*1*	*U*	1.4		*1*	*U*
trans-1,3-Dichloropropene	10061-02-6	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Trichloroethene (TCE)	79-01-6	ug/l	*1*	*U*	4.4		4.3	
Trichlorofluoromethane	75-69-4	ug/l	*1*	*U*	*1*	*U*	*1*	*U*
Vinyl Chloride	75-01-4	ug/l	*1*	*U*	*1*	*U*	2.5	

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

Location:	EW-1I	EW-2I	EW-3I	EW-4I	EW-5I	MW-01D	MW-01S	MW-02I	MW-02S
Sample:	EW-1I-20221118	EW-2I-20221118	EW-3I-20221118	EW-4I-20221116	EW-5I-20221117	MW-01D-20221114	MW-01S-20221114	MW-02I-20221117	MW-02S-20221117
Sample Date:	11/18/2022	11/18/2022	11/18/2022	11/16/2022	11/17/2022	11/14/2022	11/14/2022	11/17/2022	11/17/2022

Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																				
Aluminum	7429-90-5	ug/l																		
Antimony	7440-36-0	ug/l																		
Arsenic	7440-38-2	ug/l																		
Barium	7440-39-3	ug/l																		
Beryllium	7440-41-7	ug/l																		
Cadmium	7440-43-9	ug/l																		
Calcium	7440-70-2	ug/l																		
Chromium, Total	7440-47-3	ug/l																		
Cobalt	7440-48-4	ug/l																		
Copper	7440-50-8	ug/l																		
Iron	7439-89-6	ug/l																		
Lead	7439-92-1	ug/l																		
Magnesium	7439-95-4	ug/l																		
Manganese	7439-96-5	ug/l																		
Mercury	7439-97-6	ug/l																		
Nickel	7440-02-0	ug/l																		
Potassium	7440-09-7	ug/l																		
Selenium	7782-49-2	ug/l																		
Silver	7440-22-4	ug/l																		
Sodium	7440-23-5	ug/l																		
Thallium	7440-28-0	ug/l																		
Vanadium	7440-62-2	ug/l																		
Zinc	7440-66-6	ug/l																		
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/l	0.26	J	2.3		*0.5*	*U*	*0.5*	*U*	0.17	J	4.8		10		*0.5*	*U*	*0.5*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethane	75-34-3	ug/l	13		2.5		*0.5*	*U*	3		4.4		16		5.1		*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethene	75-35-4	ug/l	4.2		0.94		*0.5*	*U*	1		0.57		11		2.6		*0.5*	*UJ*	*0.5*	*U*
1,2,3-Trichlorobenzene	87-61-6	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	2		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloroethane	107-06-2	ug/l	0.75		0.13	J	*0.5*	*U*	*0.5*	*U*	0.2	J	1.4		0.34	J	*0.5*	*U*	*0.5*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3-Dichlorobenzene	541-73-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
2-Butanone	78-93-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Hexanone	591-78-6	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Acetone	67-64-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Benzene	71-43-2	ug/l	15		0.28	J	*0.5*	*U*	5.7		1.1		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromochloromethane	74-97-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromodichloromethane	75-27-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromoform	75-25-2	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromomethane	74-83-9	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Disulfide	75-15-0	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.33	J	*0.5*	*U*	*0.5*	*U*	0.84		0.57	
Carbon Tetrachloride	56-23-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chlorobenzene	108-90-7	ug/l	0.1	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.04	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroethane	75-00-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroform	67-66-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.25	J	*0.5*	*U*	*0.5*	*U*
Chloromethane	74-87-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	EW-1I		EW-2I		EW-3I		EW-4I		EW-5I		MW-01D		MW-01S		MW-02I		MW-02S	
			Sample:	EW-1I-20221118		EW-2I-20221118		EW-3I-20221118		EW-4I-20221116		EW-5I-20221117		MW-01D-20221114		MW-01S-20221114		MW-02I-20221117		MW-02S-20221117	
			Sample Date:	11/18/2022		11/18/2022		11/18/2022		11/16/2022		11/17/2022		11/14/2022		11/14/2022		11/17/2022		11/17/2022	
Analyte	CAS	Unit		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
cis-1,2-Dichloroethene	156-59-2	ug/l		34		5.7		*0.5*	*U*	5.9		6.5		72		22		*0.5*	*UJ*	*0.5*	*U*
cis-1,3-Dichloropropene	10061-01-5	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Cyclohexane	110-82-7	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Dibromochloromethane	124-48-1	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Dichlorodifluoromethane	75-71-8	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.08	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Ethylbenzene	100-41-4	ug/l		0.42	J	0.04	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Isopropylbenzene	98-82-8	ug/l		7.4		*0.5*	*U*	*0.5*	*U*	9.2		0.56		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
M, P Xylenes	179601-23-1	ug/l		3.6		0.05	J	*0.5*	*U*	0.18	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Methyl Acetate	79-20-9	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l		0.14	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.11	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Methylcyclohexane	108-87-2	ug/l		0.14	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Methylene Chloride	75-09-2	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*UJ*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l		12		0.07	J	*0.5*	*U*	0.57		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Styrene	100-42-5	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Toluene	108-88-3	ug/l		1.5		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
trans-1,2-Dichloroethene	156-60-5	ug/l		0.38	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.16	J	0.15	J	*0.5*	*UJ*	*0.5*	*U*
trans-1,3-Dichloropropene	10061-02-6	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Trichloroethene (TCE)	79-01-6	ug/l		15		5.7		*0.5*	*U*	0.7		1.1		13		8.4		*0.5*	*U*	*0.5*	*U*
Trichlorofluoromethane	75-69-4	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Vinyl Chloride	75-01-4	ug/l		0.14	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	2.4		0.16	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
SVOCs																					
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l		3		1.1	J	*2*	*U*	1.3	J	1.3	J	10		3		*2*	*U*	*2*	*U*
1-methylnaphthalene	90-12-0	ug/l		12		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2,4,5-Trichlorophenol	95-95-4	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2,4,6-Trichlorophenol	88-06-2	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2,4-Dichlorophenol	120-83-2	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2,4-Dimethylphenol	105-67-9	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2,4-Dinitrophenol	51-28-5	ug/l		*10*	*UJ*	*10*	*UJ*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
2,4-Dinitrotoluene	121-14-2	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2,6-Dinitrotoluene	606-20-2	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Chloronaphthalene	91-58-7	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Chlorophenol	95-57-8	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Methylnaphthalene	91-57-6	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Methylphenol (O-Cresol)	95-48-7	ug/l		*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
2-Nitroaniline	88-74-4	ug/l		*5*	*UJ*	*5*	*UJ*	*5*	*UJ*	*5*	*U*	*5*	*UJ*	*5*	*U*	*5*	*UJ*	*5*	*U*	*5*	*U*
2-Nitrophenol	88-75-5	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
3,3'-Dichlorobenzidine	91-94-1	ug/l		*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
3-Nitroaniline	99-09-2	ug/l		*10*	*UJ*	*10*	*UJ*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l		*10*	*UJ*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Bromophenyl Phenyl Ether	101-55-3	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Chloro-3-Methylphenol	59-50-7	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Chloroaniline	106-47-8	ug/l		*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Methylphenol (P-Cresol)	106-44-5	ug/l		*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Nitroaniline	100-01-6	ug/l		*10*	*UJ*	*10*	*UJ*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
4-Nitrophenol	100-02-7	ug/l		*10*	*UJ*	*10*	*UJ*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
Acenaphthene	83-32-9	ug/l		4.7	J	*5*	*U*	*5*	*U*	6.1		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Acenaphthylene	208-96-8	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Acetophenone	98-86-2	ug/l		*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Anthracene	120-12-7	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Atrazine	1912-24-9	ug/l		*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzaldehyde	100-52-7	ug/l		*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzo(a)anthracene	56-55-3	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Benzo(a)pyrene	50-32-8	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Benzo(b)fluoranthene	205-99-2	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	EW-1I		EW-2I		EW-3I		EW-4I		EW-5I		MW-01D		MW-01S		MW-02I		MW-02S	
			Sample:	EW-1I-20221118		EW-2I-20221118		EW-3I-20221118		EW-4I-20221116		EW-5I-20221117		MW-01D-20221114		MW-01S-20221114		MW-02I-20221117		MW-02S-20221117	
			Sample Date:	11/18/2022		11/18/2022		11/18/2022		11/16/2022		11/17/2022		11/14/2022		11/14/2022		11/17/2022		11/17/2022	
Analyte	CAS	Unit		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzo(g,h,i)perylene	191-24-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	207-08-9	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzyl Butyl Phthalate	85-68-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Biphenyl (Diphenyl)	92-52-4	ug/l		7.6		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy) Methane	111-91-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Caprolactam	105-60-2	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbazole	86-74-8	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chrysene	218-01-9	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenz(a,h)anthracene	53-70-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzofuran	132-64-9	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl Phthalate	84-66-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dimethyl Phthalate	131-11-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-N-Butyl Phthalate	84-74-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-N-Octylphthalate	117-84-0	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Fluoranthene	206-44-0	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluorene	86-73-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	118-74-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	87-68-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	77-47-4	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	67-72-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Isophorone	78-59-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	91-20-3	ug/l		2.7	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	98-95-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitrosodi-N-Propylamine	621-64-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitrosodiphenylamine	86-30-6	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	87-86-5	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Phenanthrene	85-01-8	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Phenol	108-95-2	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Pyrene	129-00-0	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Parameters																					
Alkalinity, Total (As Caco3)	ALK	mg/l																			
Hardness (As Caco3)	HARD	mg/l																			
Nitrogen, Nitrate (As N)	14797-55-8	mg/l																			
Nitrogen, Nitrite (as N)	14797-65-0	mg/l																			
Sulfate (As So4)	14808-79-8	mg/l																			

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	MW-03I		MW-07I		MW-07I		MW-07S		MW-08B		MW-08DI		MW-10B		MW-10I		MW-11B	
			Sample:	MW-3I-20221118		MW-07I-20221121		MW-07I-20221121-DUP		MW-07S-20221121		MW-08B-20221116		MW-08DI-20221116		MW-10B-20221115		MW-10I-20221115		MW-11B-20221115	
			Sample Date:	11/18/2022		11/21/2022		11/21/2022		11/21/2022		11/16/2022		11/16/2022		11/15/2022		11/15/2022		11/15/2022	
Analyte	CAS	Unit		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																					
Aluminum	7429-90-5	ug/l																			
Antimony	7440-36-0	ug/l																			
Arsenic	7440-38-2	ug/l																			
Barium	7440-39-3	ug/l																			
Beryllium	7440-41-7	ug/l																			
Cadmium	7440-43-9	ug/l																			
Calcium	7440-70-2	ug/l																			
Chromium, Total	7440-47-3	ug/l																			
Cobalt	7440-48-4	ug/l																			
Copper	7440-50-8	ug/l																			
Iron	7439-89-6	ug/l																			
Lead	7439-92-1	ug/l																			
Magnesium	7439-95-4	ug/l																			
Manganese	7439-96-5	ug/l																			
Mercury	7439-97-6	ug/l																			
Nickel	7440-02-0	ug/l																			
Potassium	7440-09-7	ug/l																			
Selenium	7782-49-2	ug/l																			
Silver	7440-22-4	ug/l																			
Sodium	7440-23-5	ug/l																			
Thallium	7440-28-0	ug/l																			
Vanadium	7440-62-2	ug/l																			
Zinc	7440-66-6	ug/l																			
VOCs																					
1,1,1-Trichloroethane	71-55-6	ug/l		1.6		0.5	U	0.5	U	0.5	U	25		3.7		0.5	U	0.5	U	0.42	J
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/l		8.7		0.5	U	0.5	U	0.5	U	23		14		0.5	U	0.5	U	4.1	
1,1-Dichloroethene	75-35-4	ug/l		1.1		0.5	U	0.5	U	0.5	U	7.2		4		0.5	UJ	0.5	U	0.32	J-
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	ug/l		0.22	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/l		0.4	J	0.5	U	0.5	U	0.5	U	1.3		1		0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	ug/l		0.96		0.5	U	0.5	U	0.5	U	0.4	J	5.6		0.5	U	0.5	U	7.9	
Bromochloromethane	74-97-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Disulfide	75-15-0	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.12	J	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.3	
Chloroform	67-66-3	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.37	J	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	MW-03I		MW-07I		MW-07I		MW-07S		MW-08B		MW-08DI		MW-10B		MW-10I		MW-11B	
			Sample:	MW-3I-20221118		MW-07I-20221121		MW-07I-20221121-DUP		MW-07S-20221121		MW-08B-20221116		MW-08DI-20221116		MW-10B-20221115		MW-10I-20221115		MW-11B-20221115	
			Sample Date:	11/18/2022		11/21/2022		11/21/2022		11/21/2022		11/16/2022		11/16/2022		11/15/2022		11/15/2022		11/15/2022	
Analyte	CAS	Unit		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
cis-1,2-Dichloroethene	156-59-2	ug/l		20		0.5	U	0.5	U	0.5	U	94		48		0.5	UJ	0.5	U	2.9	J-
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	ug/l		0.79		0.5	U	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U	0.78	
Isopropylbenzene	98-82-8	ug/l		1.8		0.5	U	0.5	U	0.5	U	0.5	U	2.3		0.5	U	0.5	U	0.09	J
M, P Xylenes	179601-23-1	ug/l		2.6		0.5	U	0.5	U	0.5	U	0.5	U	0.43	J	0.5	U	0.5	U	0.5	
Methyl Acetate	79-20-9	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.28	J	0.13	J	0.5	U	0.5	U	0.14	J
Methylcyclohexane	108-87-2	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l		6.1		0.5	U	0.5	U	0.5	U	0.5	U	1.8		0.5	U	0.5	U	0.84	
Styrene	100-42-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene (PCE)	127-18-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	ug/l		0.5		0.5	U	0.5	U	0.5	U	0.5	U	0.34	J	0.5	U	0.5	U	0.24	J
trans-1,2-Dichloroethene	156-60-5	ug/l		0.09	J	0.5	U	0.5	U	0.5	U	0.16	J	0.11	J	0.5	UJ	0.5	U	0.07	J-
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	ug/l		1.4		0.5	U	0.5	U	0.5	U	40		10		0.5	U	0.5	U	0.8	
Trichlorofluoromethane	75-69-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l		15		0.5	U	0.5	U	0.5	U	0.5	U	3.8		0.5	U	0.5	U	1.2	
SVOCs																					
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l		2.6		2	U	2	U	2	U	12		7.6		2	U	2	U	2	U
1-methylnaphthalene	90-12-0	ug/l		2.8	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	95-95-4	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	88-06-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	120-83-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	105-67-9	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrophenol	51-28-5	ug/l		10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrotoluene	121-14-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	606-20-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chloronaphthalene	91-58-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	95-57-8	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	91-57-6	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylphenol (O-Cresol)	95-48-7	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	88-74-4	ug/l		5	UJ	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	88-75-5	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	91-94-1	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	99-09-2	ug/l		10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl Phenyl Ether	101-55-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloro-3-Methylphenol	59-50-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	106-47-8	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methylphenol (P-Cresol)	106-44-5	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	100-01-6	ug/l		10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	100-02-7	ug/l		10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acenaphthene	83-32-9	ug/l		34		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	208-96-8	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetophenone	98-86-2	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Anthracene	120-12-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Atrazine	1912-24-9	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzaldehyde	100-52-7	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	56-55-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	50-32-8	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(b)fluoranthene	205-99-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	MW-03I		MW-07I		MW-07I		MW-07S		MW-08B		MW-08DI		MW-10B		MW-10I		MW-11B	
		Sample:	MW-3I-20221118		MW-07I-20221121		MW-07I-20221121-DUP		MW-07S-20221121		MW-08B-20221116		MW-08DI-20221116		MW-10B-20221115		MW-10I-20221115		MW-11B-20221115	
		Sample Date:	11/18/2022		11/21/2022		11/21/2022		11/21/2022		11/16/2022		11/16/2022		11/15/2022		11/15/2022		11/15/2022	
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzo(g,h,i)perylene	191-24-2	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	207-08-9	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzyl Butyl Phthalate	85-68-7	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Biphenyl (Diphenyl)	92-52-4	ug/l	14		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Caprolactam	105-60-2	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbazole	86-74-8	ug/l	15		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chrysene	218-01-9	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenz(a,h)anthracene	53-70-3	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzofuran	132-64-9	ug/l	10		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl Phthalate	84-66-2	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dimethyl Phthalate	131-11-3	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-N-Butyl Phthalate	84-74-2	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-N-Octylphthalate	117-84-0	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Fluoranthene	206-44-0	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluorene	86-73-7	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	118-74-1	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	87-68-3	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	77-47-4	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	67-72-1	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Isophorone	78-59-1	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	91-20-3	ug/l	1.4	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	98-95-3	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitrosodiphenylamine	86-30-6	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	87-86-5	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Phenanthrene	85-01-8	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Phenol	108-95-2	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Pyrene	129-00-0	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Parameters																				
Alkalinity, Total (As Caco3)	ALK	mg/l																		
Hardness (As Caco3)	HARD	mg/l																		
Nitrogen, Nitrate (As N)	14797-55-8	mg/l																		
Nitrogen, Nitrite (as N)	14797-65-0	mg/l																		
Sulfate (As So4)	14808-79-8	mg/l																		

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	MW-11I		MW-12B		MW-12I		MW-13B		MW-13I		MW-17B		MW-17B		MW-19B		MW-20B	
		Sample:	MW-11I-20221115		MW-12B-20221117		MW-12I-20221117		MW-13B-20221115		MW-13I-20221115		MW-17B-20221117-DUP		MW-17B-20221117		MW-19B-20221116		MW-20B-20221116	
		Sample Date:	11/15/2022		11/17/2022		11/17/2022		11/15/2022		11/15/2022		11/17/2022		11/17/2022		11/16/2022		11/16/2022	
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																				
Aluminum	7429-90-5	ug/l			204		*100*	*U*					427		727					
Antimony	7440-36-0	ug/l			*20*	*U*	*20*	*U*					*20*	*U*	*20*	*U*				
Arsenic	7440-38-2	ug/l			*8*	*U*	140						*8*	*U*	*8*	*U*				
Barium	7440-39-3	ug/l			565		*100*	*U*					289		330					
Beryllium	7440-41-7	ug/l			*3*	*U*	*3*	*U*					*3*	*U*	*3*	*U*				
Cadmium	7440-43-9	ug/l			*3*	*U*	*3*	*U*					*3*	*U*	*3*	*U*				
Calcium	7440-70-2	ug/l			54500		56600						68800		77800					
Chromium, Total	7440-47-3	ug/l			*5*	*U*	7.69						*5*	*U*	*5*	*U*				
Cobalt	7440-48-4	ug/l			*20*	*U*	*20*	*U*					*20*	*U*	*20*	*U*				
Copper	7440-50-8	ug/l			*10*	*U*	*10*	*U*					*10*	*U*	*10*	*U*				
Iron	7439-89-6	ug/l			363		22100						1570		2380					
Lead	7439-92-1	ug/l			*8*	*U*	*8*	*U*					*8*	*U*	*8*	*U*				
Magnesium	7439-95-4	ug/l			10500		10700						13400		15400					
Manganese	7439-96-5	ug/l			637		19700						197		250					
Mercury	7439-97-6	ug/l			*0.2*	*U*	*0.2*	*U*					*0.2*	*U*	*0.2*	*U*				
Nickel	7440-02-0	ug/l			*20*	*U*	*20*	*U*					*20*	*U*	*20*	*U*				
Potassium	7440-09-7	ug/l			1410		3260						4300		3270					
Selenium	7782-49-2	ug/l			*20*	*U*	*20*	*U*					*20*	*U*	*20*	*U*				
Silver	7440-22-4	ug/l			*5*	*U*	*5*	*U*					*5*	*U*	*5*	*U*				
Sodium	7440-23-5	ug/l			86300		14800						64900		69800					
Thallium	7440-28-0	ug/l			*20*	*U*	*20*	*U*					*20*	*U*	*20*	*U*				
Vanadium	7440-62-2	ug/l			*20*	*U*	*20*	*U*					*20*	*U*	*20*	*U*				
Zinc	7440-66-6	ug/l			*20*	*U*	30.4						*20*	*U*	*20*	*U*				
VOCs																				
1,1,1-Trichloroethane	71-55-6	ug/l	0.09	J	4.6		*0.5*	*U*	6.6		2		34		31		4.9		0.2	J
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethane	75-34-3	ug/l	0.41	J	16		*0.5*	*U*	13		9.9		28		25		4.4		2.5	
1,1-Dichloroethene	75-35-4	ug/l	*0.5*	*UJ*	0.99		*0.5*	*UJ*	3.1		0.83		14	J+	13		1.3		0.81	
1,2,3-Trichlorobenzene	87-61-6	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	*0.5*	*U*	7		3.6		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.35	J
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloroethane	107-06-2	ug/l	*0.5*	*U*	0.84		*0.5*	*U*	0.78		0.29	J	1.8		1.6		0.24	J	*0.5*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*0.5*	*U*	5.3		0.44	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.11	J
1,3-Dichlorobenzene	541-73-1	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
2-Butanone	78-93-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Hexanone	591-78-6	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Acetone	67-64-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Benzene	71-43-2	ug/l	*0.5*	*U*	1.5		1.5		0.34	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.07	J
Bromochloromethane	74-97-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromodichloromethane	75-27-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromoform	75-25-2	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromomethane	74-83-9	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Disulfide	75-15-0	ug/l	*0.5*	*U*	1.8		1.2		*0.5*	*U*	*0.5*	*U*	0.51		0.67		*0.5*	*U*	*0.5*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chlorobenzene	108-90-7	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroethane	75-00-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	4		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroform	67-66-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloromethane	74-87-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	MW-11I		MW-12B		MW-12I		MW-13B		MW-13I		MW-17B		MW-17B		MW-19B		MW-20B	
			Sample:	MW-11I-20221115		MW-12B-20221117		MW-12I-20221117		MW-13B-20221115		MW-13I-20221115		MW-17B-20221117-DUP		MW-17B-20221117		MW-19B-20221116		MW-20B-20221116	
			Sample Date:	11/15/2022		11/17/2022		11/17/2022		11/15/2022		11/15/2022		11/17/2022		11/17/2022		11/16/2022		11/16/2022	
Analyte	**CAS**	**Unit**		**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
cis-1,2-Dichloroethene	156-59-2	ug/l		0.5	UJ	37		0.5	UJ	27		1.8		160		150		18		8.5	
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.12	J	0.11	J	0.5	U	0.5	U
Ethylbenzene	100-41-4	ug/l		0.5	U	4.3		20		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.16	J
Isopropylbenzene	98-82-8	ug/l		0.5	U	1.4		5.3		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	ug/l		0.5	U	15		9.8		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.55	
Methyl Acetate	79-20-9	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	ug/l		0.5	U	1.4		0.5	U	0.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.49	J
Methylcyclohexane	108-87-2	ug/l		0.5	U	0.5	U	0.08	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	ug/l		0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l		0.5	U	10		30		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.28	J
Styrene	100-42-5	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J
Tetrachloroethene (PCE)	127-18-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	ug/l		0.5	U	2.8		8		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.31	J
trans-1,2-Dichloroethene	156-60-5	ug/l		0.09	J-	0.5	U	0.5	UJ	0.09	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	ug/l		0.5	U	1.3		0.5	U	12		0.5	U	33		30		5.3		1.1	
Trichlorofluoromethane	75-69-4	ug/l		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	ug/l		0.5	U	32		0.5	U	1.7		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SVOCs																					
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l		2	U	6.4		2	U	6.6		11		9.8		9.6		1.9	J	3.2	
1-methylnaphthalene	90-12-0	ug/l		5	U	57		21		5	U	5	U	5	U	5	U	5	U	1.1	J
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	95-95-4	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	88-06-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	120-83-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	105-67-9	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrophenol	51-28-5	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
2,4-Dinitrotoluene	121-14-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	606-20-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chloronaphthalene	91-58-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	95-57-8	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	91-57-6	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	2	J
2-Methylphenol (O-Cresol)	95-48-7	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	88-74-4	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ
2-Nitrophenol	88-75-5	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	91-94-1	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	99-09-2	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
4-Bromophenyl Phenyl Ether	101-55-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloro-3-Methylphenol	59-50-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	106-47-8	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methylphenol (P-Cresol)	106-44-5	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	100-01-6	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
4-Nitrophenol	100-02-7	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ
Acenaphthene	83-32-9	ug/l		5	U	93		55		5	U	5	U	5	U	5	U	5	U	2.3	J
Acenaphthylene	208-96-8	ug/l		5	U	3.9	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetophenone	98-86-2	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Anthracene	120-12-7	ug/l		5	U	4	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Atrazine	1912-24-9	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzaldehyde	100-52-7	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	56-55-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	50-32-8	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(b)fluoranthene	205-99-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

			Location:	MW-11I		MW-12B		MW-12I		MW-13B		MW-13I		MW-17B		MW-17B		MW-19B		MW-20B	
			Sample:	MW-11I-20221115		MW-12B-20221117		MW-12I-20221117		MW-13B-20221115		MW-13I-20221115		MW-17B-20221117-DUP		MW-17B-20221117		MW-19B-20221116		MW-20B-20221116	
			Sample Date:	11/15/2022		11/17/2022		11/17/2022		11/15/2022		11/15/2022		11/17/2022		11/17/2022		11/16/2022		11/16/2022	
Analyte	CAS	Unit		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzo(g,h,i)perylene	191-24-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	207-08-9	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzyl Butyl Phthalate	85-68-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Biphenyl (Diphenyl)	92-52-4	ug/l		5	U	31		21		5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy) Methane	111-91-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Caprolactam	105-60-2	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbazole	86-74-8	ug/l		10	U	25		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Chrysene	218-01-9	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenz(a,h)anthracene	53-70-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzofuran	132-64-9	ug/l		5	U	60		37		5	U	5	U	5	U	5	U	5	U	1.7	J
Diethyl Phthalate	84-66-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dimethyl Phthalate	131-11-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-N-Butyl Phthalate	84-74-2	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-N-Octylphthalate	117-84-0	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Fluoranthene	206-44-0	ug/l		5	U	10		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluorene	86-73-7	ug/l		5	U	61		1.4	J	5	U	5	U	5	U	5	U	5	U	1.7	J
Hexachlorobenzene	118-74-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	87-68-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	77-47-4	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	67-72-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Isophorone	78-59-1	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	91-20-3	ug/l		5	U	5	U	17		5	U	5	U	5	U	5	U	5	U	5.2	
Nitrobenzene	98-95-3	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitrosodi-N-Propylamine	621-64-7	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-Nitrosodiphenylamine	86-30-6	ug/l		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	87-86-5	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Phenanthrene	85-01-8	ug/l		5	U	77		3.8	J	5	U	5	U	5	U	5	U	5	U	3.1	J
Phenol	108-95-2	ug/l		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Pyrene	129-00-0	ug/l		5	U	5.7		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Parameters																					
Alkalinity, Total (As Caco3)	ALK	mg/l				171	J	289	J					115	J	126	J				
Hardness (As Caco3)	HARD	mg/l				179		185						227		258					
Nitrogen, Nitrate (As N)	14797-55-8	mg/l				0.05	U	0.05	U					0.614		0.613					
Nitrogen, Nitrite (as N)	14797-65-0	mg/l				0.05	U	0.05	U					0.05	U	0.05	U				
Sulfate (As So4)	14808-79-8	mg/l				7.66		1	U					13.2		13.2					

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	MW-21I		MW-21B		MW-22I		MW-22B		PZ-01I		PZ-03S	
		Sample:	MW-21I-20221116		MW-21B-20221116		MW-22I-3-20230117		MW-22B-20230112		PZ-01I-20221121		PZ-03S-20221116	
		Sample Date:	11/16/2022		11/16/2022		1/17/2023		1/12/2023		11/21/2022		11/16/2022	
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals														
Aluminum	7429-90-5	ug/l												
Antimony	7440-36-0	ug/l												
Arsenic	7440-38-2	ug/l												
Barium	7440-39-3	ug/l												
Beryllium	7440-41-7	ug/l												
Cadmium	7440-43-9	ug/l												
Calcium	7440-70-2	ug/l												
Chromium, Total	7440-47-3	ug/l												
Cobalt	7440-48-4	ug/l												
Copper	7440-50-8	ug/l												
Iron	7439-89-6	ug/l												
Lead	7439-92-1	ug/l												
Magnesium	7439-95-4	ug/l												
Manganese	7439-96-5	ug/l												
Mercury	7439-97-6	ug/l												
Nickel	7440-02-0	ug/l												
Potassium	7440-09-7	ug/l												
Selenium	7782-49-2	ug/l												
Silver	7440-22-4	ug/l												
Sodium	7440-23-5	ug/l												
Thallium	7440-28-0	ug/l												
Vanadium	7440-62-2	ug/l												
Zinc	7440-66-6	ug/l												
VOCs														
1,1,1-Trichloroethane	71-55-6	ug/l	0.08	J	6.9		*0.5*	*U*	16		16		*0.5*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.34	J	*0.5*	*U*
1,1,2-Trichloroethane	79-00-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethane	75-34-3	ug/l	15		13		*0.5*	*U*	20		12		*0.5*	*U*
1,1-Dichloroethene	75-35-4	ug/l	3.8		1.5		*0.5*	*U*	6.4		5.2		*0.5*	*U*
1,2,3-Trichlorobenzene	87-61-6	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichloropropane	96-18-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trichlorobenzene	120-82-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trimethylbenzene	95-63-6	ug/l	*0.5*	*U*	0.1	J	*50*		1.8		*0.5*	*U*	*0.5*	*U*
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromoethane	106-93-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichlorobenzene	95-50-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloroethane	107-06-2	ug/l	0.74		0.66		*0.5*	*U*	1.3		1.1		*0.5*	*U*
1,2-Dichloropropane	78-87-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/l	*0.5*	*U*	0.08	J	*19*		0.96		*0.5*	*U*	*0.5*	*U*
1,3-Dichlorobenzene	541-73-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,4-Dichlorobenzene	106-46-7	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
2-Butanone	78-93-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Hexanone	591-78-6	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Methyl-2-Pentanone	108-10-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Acetone	67-64-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Benzene	71-43-2	ug/l	0.62		1.2		*10*		0.19	J	*0.5*	*U*	*0.5*	*U*
Bromochloromethane	74-97-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromodichloromethane	75-27-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromoform	75-25-2	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromomethane	74-83-9	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Disulfide	75-15-0	ug/l	*0.5*	*U*	0.24	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Tetrachloride	56-23-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chlorobenzene	108-90-7	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroethane	75-00-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroform	67-66-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.27	J	*0.5*	*U*	*0.5*	*U*
Chloromethane	74-87-3	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	MW-21I		MW-21B		MW-22I		MW-22B		PZ-01I		PZ-03S	
		Sample:	MW-21I-20221116		MW-21B-20221116		MW-22I-3-20230117		MW-22B-20230112		PZ-01I-20221121		PZ-03S-20221116	
		Sample Date:	11/16/2022		11/16/2022		1/17/2023		1/12/2023		11/21/2022		11/16/2022	
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
cis-1,2-Dichloroethene	156-59-2	ug/l	43		19		0.2	J	69		31		*0.5*	*U*
cis-1,3-Dichloropropene	10061-01-5	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Cyclohexane	110-82-7	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Dibromochloromethane	124-48-1	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Dichlorodifluoromethane	75-71-8	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.09	J	*0.5*	*U*	*0.5*	*U*
Ethylbenzene	100-41-4	ug/l	*0.5*	*U*	0.38	J	*32*		0.61		*0.5*	*U*	*0.5*	*U*
Isopropylbenzene	98-82-8	ug/l	*0.5*	*U*	0.18	J	*1.9*		0.18	J	*0.5*	*U*	*0.5*	*U*
M, P Xylenes	179601-23-1	ug/l	*0.5*	*U*	0.67		*140*		1.6		*0.5*	*U*	*0.5*	*U*
Methyl Acetate	79-20-9	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Methyl tert-Butyl Ether	1634-04-4	ug/l	*0.5*	*U*	0.32	J	*0.5*	*U*	0.21	J	0.12	J	*0.5*	*U*
Methylcyclohexane	108-87-2	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Methylene Chloride	75-09-2	ug/l	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	*0.5*	*U*	0.97		*63*		1.4		*0.5*	*U*	*0.5*	*U*
Styrene	100-42-5	ug/l	*0.5*	*U*	*0.5*	*U*	*32*		0.2	J	*0.5*	*U*	*0.5*	*U*
Tetrachloroethene (PCE)	127-18-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Toluene	108-88-3	ug/l	*0.5*	*U*	0.57		*120*		9.4		*0.5*	*U*	*0.5*	*U*
trans-1,2-Dichloroethene	156-60-5	ug/l	0.1	J	0.13	J	*0.5*	*U*	0.12	J	*0.5*	*U*	*0.5*	*U*
trans-1,3-Dichloropropene	10061-02-6	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Trichloroethene (TCE)	79-01-6	ug/l	6.3		4.9		*0.5*	*U*	19		10		*0.5*	*U*
Trichlorofluoromethane	75-69-4	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Vinyl Chloride	75-01-4	ug/l	1.7		9.8		*0.5*	*U*	3.1		5.4		*0.5*	*U*
SVOCs														
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
1,4-Dioxane (P-Dioxane)	123-91-1	ug/l	5.4		4		*2*	*U*	6.3		9.3		*2*	*U*
1-methylnaphthalene	90-12-0	ug/l	*5*	*U*	3.8	J	*140*		24		*5*	*U*	*5*	*U*
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2,4,5-Trichlorophenol	95-95-4	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2,4,6-Trichlorophenol	88-06-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2,4-Dichlorophenol	120-83-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2,4-Dimethylphenol	105-67-9	ug/l	*5*	*U*	*5*	*U*	*1.2*	J	*5.2*	*U*	*5*	*U*	*5*	*U*
2,4-Dinitrophenol	51-28-5	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
2,4-Dinitrotoluene	121-14-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2,6-Dinitrotoluene	606-20-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2-Chloronaphthalene	91-58-7	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2-Chlorophenol	95-57-8	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
2-Methylnaphthalene	91-57-6	ug/l	*5*	*U*	*5*	*U*	*200*		23		*5*	*U*	*5*	*U*
2-Methylphenol (O-Cresol)	95-48-7	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
2-Nitroaniline	88-74-4	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*UJ*	*5*	*U*	*5*	*U*
2-Nitrophenol	88-75-5	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
3,3'-Dichlorobenzidine	91-94-1	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
3-Nitroaniline	99-09-2	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
4,6-Dinitro-2-Methylphenol	534-52-1	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Bromophenyl Phenyl Ether	101-55-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
4-Chloro-3-Methylphenol	59-50-7	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
4-Chloroaniline	106-47-8	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Chlorophenyl Phenyl Ether	7005-72-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
4-Methylphenol (P-Cresol)	106-44-5	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
4-Nitroaniline	100-01-6	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
4-Nitrophenol	100-02-7	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*UJ*	*10*	*U*	*10*	*U*
Acenaphthene	83-32-9	ug/l	*5*	*U*	9.7		*23*		46		*5*	*U*	*5*	*U*
Acenaphthylene	208-96-8	ug/l	*5*	*U*	*5*	*U*	*3.5*	J	1.4	J	*5*	*U*	*5*	*U*
Acetophenone	98-86-2	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Anthracene	120-12-7	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	2.2	J	*5*	*U*	*5*	*U*
Atrazine	1912-24-9	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzaldehyde	100-52-7	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Benzo(a)anthracene	56-55-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Benzo(a)pyrene	50-32-8	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Benzo(b)fluoranthene	205-99-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

Appendix J-4
Monitoring Well Sample Results
GCL Tie and Treating Superfund Site
Sidney, New York

		Location:	MW-21I		MW-21B		MW-22I		MW-22B		PZ-01I		PZ-03S	
		Sample:	MW-21I-20221116		MW-21B-20221116		MW-22I-3-20230117		MW-22B-20230112		PZ-01I-20221121		PZ-03S-20221116	
		Sample Date:	11/16/2022		11/16/2022		1/17/2023		1/12/2023		11/21/2022		11/16/2022	
Analyte	CAS	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzo(g,h,i)perylene	191-24-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Benzo(k)fluoranthene	207-08-9	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Benzyl Butyl Phthalate	85-68-7	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Biphenyl (Diphenyl)	92-52-4	ug/l	*5*	*U*	1.3	J	*12*		12		*5*	*U*	*5*	*U*
bis(2-Chloroethoxy) Methane	111-91-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
bis(2-Chloroisopropyl) Ether	108-60-1	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
bis(2-Ethylhexyl) Phthalate	117-81-7	ug/l	*5*	*U*	*5*	*U*	*2.6*	J	4.8	J	*5*	*U*	*5*	*U*
Caprolactam	105-60-2	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Carbazole	86-74-8	ug/l	*10*	*U*	1.8	J	*52*		4.3	J	*10*	*U*	*10*	*U*
Chrysene	218-01-9	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Dibenz(a,h)anthracene	53-70-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Dibenzofuran	132-64-9	ug/l	*5*	*U*	7.9		*12*		37		*5*	*U*	*5*	*U*
Diethyl Phthalate	84-66-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Dimethyl Phthalate	131-11-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Di-N-Butyl Phthalate	84-74-2	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Di-N-Octylphthalate	117-84-0	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Fluoranthene	206-44-0	ug/l	*5*	*U*	2.4	J	*5*	*U*	14		*5*	*U*	*5*	*U*
Fluorene	86-73-7	ug/l	*5*	*U*	6.9		*1.4*	J	38		*5*	*U*	*5*	*U*
Hexachlorobenzene	118-74-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Hexachlorobutadiene	87-68-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Hexachlorocyclopentadiene	77-47-4	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Hexachloroethane	67-72-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Indeno(1,2,3-c,d)pyrene	193-39-5	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Isophorone	78-59-1	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Naphthalene	91-20-3	ug/l	*5*	*U*	2.5	J	*5300*		57		*5*	*U*	*5*	*U*
Nitrobenzene	98-95-3	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
N-Nitrosodi-N-Propylamine	621-64-7	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
N-Nitrosodiphenylamine	86-30-6	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*
Pentachlorophenol	87-86-5	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Phenanthrene	85-01-8	ug/l	*5*	*U*	7.4		*5*	*U*	67		*5*	*U*	*5*	*U*
Phenol	108-95-2	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*
Pyrene	129-00-0	ug/l	*5*	*U*	1.4	J	*5*	*U*	7.4		*5*	*U*	*5*	*U*
Parameters														
Alkalinity, Total (As Caco3)	ALK	mg/l												
Hardness (As Caco3)	HARD	mg/l												
Nitrogen, Nitrate (As N)	14797-55-8	mg/l												
Nitrogen, Nitrite (as N)	14797-65-0	mg/l												
Sulfate (As So4)	14808-79-8	mg/l												

B Analyte detected in method blank.
D Dilution.
J Estimated value
N Result is a TIC.
R Rejected
U Non-Detect
Blank Result Cell = Not Analyzed

APPENDIX K

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Analyte	CAS	Result Type	Unit	Location: / Sample: / Sample Date:	Equipment Blank EB-20220912 9/12/2022		Equipment Blank EB-20220913 9/13/2022		Equipment Blank EB-20220914 9/14/2022		Equipment Blank EB-20220919 9/19/2022		Equipment Blank EB-20220921 9/21/2022		Equipment Blank EB-20220922 9/22/2022		Equipment Blank EB-20220923 9/23/2022		Equipment Blank EB-20220926 9/26/2022		Equipment Blank EB-20220927 9/27/2022		Equipment Blank EB-20220928 9/28/2022		Equipme EB-202 9/29/
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Metals																									
Aluminum	7429-90-5	TRG	ug/l																						
Antimony	7440-36-0	TRG	ug/l																						
Arsenic	7440-38-2	TRG	ug/l																						
Barium	7440-39-3	TRG	ug/l																						
Beryllium	7440-41-7	TRG	ug/l																						
Cadmium	7440-43-9	TRG	ug/l																						
Calcium	7440-70-2	TRG	ug/l																						
Chromium, Total	7440-47-3	TRG	ug/l																						
Cobalt	7440-48-4	TRG	ug/l																						
Copper	7440-50-8	TRG	ug/l																						
Iron	7439-89-6	TRG	ug/l																						
Lead	7439-92-1	TRG	ug/l																						
Magnesium	7439-95-4	TRG	ug/l																						
Manganese	7439-96-5	TRG	ug/l																						
Mercury	7439-97-6	TRG	ug/l																						
Nickel	7440-02-0	TRG	ug/l																						
Potassium	7440-09-7	TRG	ug/l																						
Selenium	7782-49-2	TRG	ug/l																						
Silver	7440-22-4	TRG	ug/l																						
Sodium	7440-23-5	TRG	ug/l																						
Thallium	7440-28-0	TRG	ug/l																						
Vanadium	7440-62-2	TRG	ug/l																						
Zinc	7440-66-6	TRG	ug/l																						
VOCs																									
1,1,1-Trichloroethane	71-55-6	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethane	75-34-3	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethene	75-35-4	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromoethane	106-93-4	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloroethane	107-06-2	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloropropane	78-87-5	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
2-Butanone	78-93-3	TRG	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
2-Hexanone	591-78-6	TRG	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Acetone	67-64-1	TRG	ug/l		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Benzene	71-43-2	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromochloromethane	74-97-5	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromodichloromethane	75-27-4	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromoform	75-25-2	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromomethane	74-83-9	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Disulfide	75-15-0	TRG	ug/l		*0.5*	*U*	9.1		0.31	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Tetrachloride	56-23-5	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chlorobenzene	108-90-7	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroethane	75-00-3	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroform	67-66-3	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloromethane	74-87-3	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Cyclohexane	110-82-7	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Dibromochloromethane	124-48-1	TRG	ug/l		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
		Sample:		EB-20220912		EB-20220913		EB-20220914		EB-20220919		EB-20220921		EB-20220922		EB-20220923		EB-20220926		EB-20220927		EB-20220928		EB-202
		Sample Date:		9/12/2022		9/13/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		9/23/2022		9/26/2022		9/27/2022		9/28/2022		9/29/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Dichlorodifluoromethane	75-71-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Ethylbenzene	100-41-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Isopropylbenzene	98-82-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
M, P Xylenes	179601-23-1	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methyl Acetate	79-20-9	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methylcyclohexane	108-87-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methylene Chloride	75-09-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Styrene	100-42-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Toluene	108-88-3	TRG	ug/l	0.08	J	0.08	J	0.05	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	0.69		0.63		0.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.22	J	0.21	J	0.5	U	0.5
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Trichloroethene (TCE)	79-01-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Trichlorofluoromethane	75-69-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Vinyl Chloride	75-01-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																			
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																			
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																			
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																			
Acenaphthene	83-32-9	TIC	ug/l																			
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																			
Benzo[c]thiophene	000270-82-6	TIC	ug/l																			
Decyl Aldehyde	112-31-2	TIC	ug/l																			
Indane	000496-11-7	TIC	ug/l																			
Naphthalene	91-20-3	TIC	ug/l																			
Nonanal	000124-19-6	TIC	ug/l																			
Nonanol	124-19-6	TIC	ug/l	0.19	NJ																	
Octanal	124-13-0	TIC	ug/l																			
Pentafluorobenzene	363-72-4	TIC	ug/l																			
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																			
Sulfur dioxide	007446-09-5	TIC	ug/l																			
Sulfur dioxide	7446.09-5	TIC	ug/l																			
Tetrahydrofuran	109-99-9	TIC	ug/l	0.12	NJ			0.11	NJ															
Total Alkane Tics	E966796	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l	0.1	J	0.12	J	0.22	J															
Unknown-02	UNKNOWN-02	TIC	ug/l	0.2	J	0.13	J	0.18	J															
Unknown-03	UNKNOWN-03	TIC	ug/l	0.19	J	0.24	J	0.22	J															
Unknown-04	UNKNOWN-04	TIC	ug/l			0.21	J																	
Unknown-05	UNKNOWN-05	TIC	ug/l			0.08	J																	
Unknown-06	UNKNOWN-06	TIC	ug/l			0.23	J																	
Unknown-07	UNKNOWN-07	TIC	ug/l																					
Unknown-08	UNKNOWN-08	TIC	ug/l																					
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	2	U	2	U	2	U	2.1	U	2	U	2	U	2	U	2.2	U	2.1	U	2.2	U	2.1
1-methylnaphthalene	90-12-0	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2,4-Dichlorophenol	120-83-2	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2,4-Dimethylphenol	105-67-9	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2,4-Dinitrophenol	51-28-5	TRG	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	11	U	11	U	11	U	11
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2-Chloronaphthalene	91-58-7	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2-Chlorophenol	95-57-8	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2-Methylnaphthalene	91-57-6	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	11	U	11	U	11	U	11
2-Nitroaniline	88-74-4	TRG	ug/l	5.1	U	5	U	5.1	U	5.2	U	5	U	5	U	5	U	5.6	U	5.3	U	5.4	U	5.3

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
				Sample:	EB-20220912		EB-20220913		EB-20220914		EB-20220919		EB-20220921		EB-20220922		EB-20220923		EB-20220926		EB-20220927		EB-20220928		EB-202
				Sample Date:	9/12/2022		9/13/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		9/23/2022		9/26/2022		9/27/2022		9/28/2022		9/29/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2-Nitrophenol	88-75-5	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
3-Nitroaniline	99-09-2	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	10		17		18
4-Chloroaniline	106-47-8	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
4-Nitroaniline	100-01-6	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
4-Nitrophenol	100-02-7	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Acenaphthene	83-32-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Acenaphthylene	208-96-8	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Acetophenone	98-86-2	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Anthracene	120-12-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Atrazine	1912-24-9	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Benzaldehyde	100-52-7	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Benzo(a)anthracene	56-55-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Benzo(a)pyrene	50-32-8	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Caprolactam	105-60-2	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Carbazole	86-74-8	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Chrysene	218-01-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Dibenzofuran	132-64-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Diethyl Phthalate	84-66-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Dimethyl Phthalate	131-11-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Di-N-Octylphthalate	117-84-0	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Fluoranthene	206-44-0	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Fluorene	86-73-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Hexachlorobenzene	118-74-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Hexachlorobutadiene	87-68-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Hexachloroethane	67-72-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Isophorone	78-59-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Naphthalene	91-20-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Nitrobenzene	98-95-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Pentachlorophenol	87-86-5	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Phenanthrene	85-01-8	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
Phenol	108-95-2	TRG	ug/l	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*11*	*U*	*11*
Pyrene	129-00-0	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.1*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5.6*	*U*	*5.3*	*U*	*5.4*	*U*	*5.3*
1-Hexadecene	629-73-2	TIC	ug/l			2	NJ	2.2	NJ															
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l	3.9	BNJ	2.9	BNJ					3.6	BNJ	2.1	BNJ					3.9	BNJ			3.2
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l	6.7	NJ	6.7	NJ	5.3	NJ	6.5	NJ	5.3	NJ	4.9	NJ	5	NJ			6.1	NJ			7.1
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
				Sample:	EB-20220912		EB-20220913		EB-20220914		EB-20220919		EB-20220921		EB-20220922		EB-20220923		EB-20220926		EB-20220927		EB-20220928		EB-202
				Sample Date:	9/12/2022		9/13/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		9/23/2022		9/26/2022		9/27/2022		9/28/2022		9/29/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l	4.4	NJ																			
Cyclohexene	110-83-8	TIC	ug/l							370	NJ	450	NJ							210	NJ			
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l																					
Hexadecanoic Acid	57-10-3	TIC	ug/l			22	NJ	64	NJ					14	NJ									
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l			6.4	NJ	25	NJ					4.6	NJ									
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l																					2.3
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l																					2.4
Total Alkane Tics	E966796	TIC	ug/l							34	J													
Triphenylphosphine Oxide	791-28-6	TIC	ug/l			3.4	NJ																	
Unknown-01	UNKNOWN-01	TIC	ug/l					2.7	J	4.9	BJ					2.9	BJ							
Unknown-02	UNKNOWN-02	TIC	ug/l							2.4	J					2.1	J							
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l																			*4.4*	*U*	
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l	*4*	*U*			2.63	J					*4.4*	*U*	*4*	*U*					1.37	J	

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	20929	EB-20221003		EB-20221004		EB-20221005		EB-20221006		EB-20221010		EB-20221011		EB-20221012		EB-20221013		EB-20221014		EB-20221018	
				Sample Date:	2022	10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022		10/14/2022		10/18/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																								
Aluminum	7429-90-5	TRG	ug/l																					
Antimony	7440-36-0	TRG	ug/l																					
Arsenic	7440-38-2	TRG	ug/l																					
Barium	7440-39-3	TRG	ug/l																					
Beryllium	7440-41-7	TRG	ug/l																					
Cadmium	7440-43-9	TRG	ug/l																					
Calcium	7440-70-2	TRG	ug/l																					
Chromium, Total	7440-47-3	TRG	ug/l																					
Cobalt	7440-48-4	TRG	ug/l																					
Copper	7440-50-8	TRG	ug/l																					
Iron	7439-89-6	TRG	ug/l																					
Lead	7439-92-1	TRG	ug/l																					
Magnesium	7439-95-4	TRG	ug/l																					
Manganese	7439-96-5	TRG	ug/l																					
Mercury	7439-97-6	TRG	ug/l																					
Nickel	7440-02-0	TRG	ug/l																					
Potassium	7440-09-7	TRG	ug/l																					
Selenium	7782-49-2	TRG	ug/l																					
Silver	7440-22-4	TRG	ug/l																					
Sodium	7440-23-5	TRG	ug/l																					
Thallium	7440-28-0	TRG	ug/l																					
Vanadium	7440-62-2	TRG	ug/l																					
Zinc	7440-66-6	TRG	ug/l																					
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
2-Butanone	78-93-3	TRG	ug/l	*U*	*5*	*U*	*5*	*U*			*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Hexanone	591-78-6	TRG	ug/l	*U*	*5*	*U*	*5*	*U*			*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*U*	*5*	*U*	*5*	*U*			*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Acetone	67-64-1	TRG	ug/l	*U*	*5*	*U*	3.5	J			*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Benzene	71-43-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromochloromethane	74-97-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromodichloromethane	75-27-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromoform	75-25-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromomethane	74-83-9	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Disulfide	75-15-0	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chlorobenzene	108-90-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroethane	75-00-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroform	67-66-3	TRG	ug/l	*U*	0.33	J	0.33	J			0.3	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloromethane	74-87-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Cyclohexane	110-82-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Dibromochloromethane	124-48-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*			*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	20929	EB-20221003		EB-20221004		EB-20221005		EB-20221006		EB-20221010		EB-20221011		EB-20221012		EB-20221013		EB-20221014		EB-20221018	
				Sample Date:	2022	10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022		10/14/2022		10/18/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																					
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l				0.16	NJ															0.2	NJ	0.2	NJ
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l		0.12	NJ	0.1	NJ			0.11	NJ	0.11	NJ	0.11	NJ			0.1	NJ			0.09	NJ
Total Alkane Tics	E966796	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l		0.14	J	0.18	J			0.05	J	0.08	BJ	0.14	J	0.05	J	0.36	J	0.26	J	0.2	J
Unknown-02	UNKNOWN-02	TIC	ug/l		0.07	J	0.09	J			0.06	J	0.18	J	0.09	J	0.11	NJ	0.19	J	0.1	J	0.1	J
Unknown-03	UNKNOWN-03	TIC	ug/l		0.1	J	0.1	J			0.17	J	0.09	J	0.2	J	0.17	J	0.12	J	0.2	J		
Unknown-04	UNKNOWN-04	TIC	ug/l		0.15	J					0.11	J	0.06	J			0.12	J	0.18	J	0.11	J		
Unknown-05	UNKNOWN-05	TIC	ug/l								0.06	J	0.19	J			0.19	J			0.06	J		
Unknown-06	UNKNOWN-06	TIC	ug/l								0.23	J												
Unknown-07	UNKNOWN-07	TIC	ug/l																					
Unknown-08	UNKNOWN-08	TIC	ug/l																					
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	U	2.1	U	2.2	U	2.2	U	2	U	2	U	2.1	U	2	U	2.2	U	2	U	2.2	U
1-methylnaphthalene	90-12-0	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2,4-Dichlorophenol	120-83-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2,4-Dimethylphenol	105-67-9	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2,4-Dinitrophenol	51-28-5	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2-Chloronaphthalene	91-58-7	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2-Chlorophenol	95-57-8	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2-Methylnaphthalene	91-57-6	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
2-Nitroaniline	88-74-4	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	20929	EB-20221003		EB-20221004		EB-20221005		EB-20221006		EB-20221010		EB-20221011		EB-20221012		EB-20221013		EB-20221014		EB-20221018	
				Sample Date:	2022	10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022		10/14/2022		10/18/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
3-Nitroaniline	99-09-2	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l		18		16		17		15		16		12		5	U	5.6	U	5	U	5.4	U
4-Chloroaniline	106-47-8	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
4-Nitroaniline	100-01-6	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
4-Nitrophenol	100-02-7	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Acenaphthene	83-32-9	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Acenaphthylene	208-96-8	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Acetophenone	98-86-2	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Anthracene	120-12-7	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Atrazine	1912-24-9	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Benzaldehyde	100-52-7	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Benzo(a)anthracene	56-55-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Benzo(a)pyrene	50-32-8	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Caprolactam	105-60-2	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Carbazole	86-74-8	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Chrysene	218-01-9	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Dibenzofuran	132-64-9	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Diethyl Phthalate	84-66-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Dimethyl Phthalate	131-11-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Di-N-Octylphthalate	117-84-0	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Fluoranthene	206-44-0	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Fluorene	86-73-7	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Hexachlorobenzene	118-74-1	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Hexachlorobutadiene	87-68-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Hexachloroethane	67-72-1	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Isophorone	78-59-1	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Naphthalene	91-20-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Nitrobenzene	98-95-3	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Pentachlorophenol	87-86-5	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Phenanthrene	85-01-8	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
Phenol	108-95-2	TRG	ug/l	U	10	U	11	U	11	U	10	U	10	U	11	U	10	U	11	U	9.9	U	11	U
Pyrene	129-00-0	TRG	ug/l	U	5.2	U	5.4	U	5.4	U	5	U	5	U	5.3	U	5	U	5.6	U	5	U	5.4	U
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l	BNJ	3.6	BNJ	3.7	BNJ	4.8	BNJ	3.9	BNJ	3.6	BNJ									3.8	BNJ
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l	NJ	6.2	NJ	5.3	NJ	6.6	NJ	6.4	NJ	4.9	NJ	2.9	NJ	5.1	NJ	4.3	NJ	4.9	NJ	4.3	NJ
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l						2.7	NJ	2.1	NJ												

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	20929	EB-20221003		EB-20221004		EB-20221005		EB-20221006		EB-20221010		EB-20221011		EB-20221012		EB-20221013		EB-20221014		EB-20221018	
				Sample Date:	2022	10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022		10/14/2022		10/18/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l																					
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l																					
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l								8.4	NJ												
Pentaethylene Glycol	4792-15-8	TIC	ug/l	NJ																				
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l	NJ	2.4	NJ																		
Total Alkane Tics	E966796	TIC	ug/l																					
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l		2.4	BJ	2.3	BJ			150	J	2.3	J										
Unknown-02	UNKNOWN-02	TIC	ug/l																					
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l		*4*	*U*									*4*	*U*	*4*	*U*					*4.4*	*U*
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l		*4*	*U*									*4*	*U*	*4*	*U*					2.95	J

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
Sample:				EB-20221020		EB-20221021		EB-20221024		EB-20221026		EB-20221027		EB-20221028		EB-20221031		EB-20221101		EB-20221102		EB-20221103		EB-202
Sample Date:				10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/2022		11/3/2022		11/4/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Metals																								
Aluminum	7429-90-5	TRG	ug/l																					
Antimony	7440-36-0	TRG	ug/l																					
Arsenic	7440-38-2	TRG	ug/l																					
Barium	7440-39-3	TRG	ug/l																					
Beryllium	7440-41-7	TRG	ug/l																					
Cadmium	7440-43-9	TRG	ug/l																					
Calcium	7440-70-2	TRG	ug/l																					
Chromium, Total	7440-47-3	TRG	ug/l																					
Cobalt	7440-48-4	TRG	ug/l																					
Copper	7440-50-8	TRG	ug/l																					
Iron	7439-89-6	TRG	ug/l																					
Lead	7439-92-1	TRG	ug/l																					
Magnesium	7439-95-4	TRG	ug/l																					
Manganese	7439-96-5	TRG	ug/l																					
Mercury	7439-97-6	TRG	ug/l																					
Nickel	7440-02-0	TRG	ug/l																					
Potassium	7440-09-7	TRG	ug/l																					
Selenium	7782-49-2	TRG	ug/l																					
Silver	7440-22-4	TRG	ug/l																					
Sodium	7440-23-5	TRG	ug/l																					
Thallium	7440-28-0	TRG	ug/l																					
Vanadium	7440-62-2	TRG	ug/l																					
Zinc	7440-66-6	TRG	ug/l																					
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
2-Butanone	78-93-3	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
2-Hexanone	591-78-6	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Acetone	67-64-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Benzene	71-43-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromochloromethane	74-97-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromodichloromethane	75-27-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromoform	75-25-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromomethane	74-83-9	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Disulfide	75-15-0	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chlorobenzene	108-90-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroethane	75-00-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroform	67-66-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloromethane	74-87-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Cyclohexane	110-82-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Dibromochloromethane	124-48-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
		Sample:		EB-20221020		EB-20221021		EB-20221024		EB-20221026		EB-20221027		EB-20221028		EB-20221031		EB-20221101		EB-20221102		EB-20221103		EB-202
		Sample Date:		10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/2022		11/3/2022		11/4/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Dichlorodifluoromethane	75-71-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Ethylbenzene	100-41-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Isopropylbenzene	98-82-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
M, P Xylenes	179601-23-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methyl Acetate	79-20-9	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methylcyclohexane	108-87-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methylene Chloride	75-09-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Styrene	100-42-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Toluene	108-88-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Trichloroethene (TCE)	79-01-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Trichlorofluoromethane	75-69-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Vinyl Chloride	75-01-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																					
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l	0.22	NJ	0.2	NJ	0.17	NJ			0.31	NJ	0.23	NJ	0.21	NJ	0.19	NJ			0.22	NJ	0.21
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l			0.09	NJ			0.1	NJ	0.1	NJ	0.11	NJ	0.09	NJ	0.09	NJ	0.1	NJ			0.09
Total Alkane Tics	E966796	TIC	ug/l					0.09	J															
Unknown-01	UNKNOWN-01	TIC	ug/l	0.11	BJ	0.34	BJ	0.3	J	0.09	J	0.1	J	0.28	J	0.21	J	0.08	J	0.05	J	0.09	J	0.21
Unknown-02	UNKNOWN-02	TIC	ug/l	0.09	J	0.05	J	0.09	J	0.25	J			0.11	J	0.09	J	0.05	J	0.21	J	0.19	J	0.08
Unknown-03	UNKNOWN-03	TIC	ug/l	0.09	J	0.11	J	0.05	J									0.2	J	0.08	J	0.08	J	
Unknown-04	UNKNOWN-04	TIC	ug/l	0.06	J	0.09	J											0.09	J	0.08	J			
Unknown-05	UNKNOWN-05	TIC	ug/l			0.22	J											0.07	J	0.2	J			
Unknown-06	UNKNOWN-06	TIC	ug/l																					
Unknown-07	UNKNOWN-07	TIC	ug/l																					
Unknown-08	UNKNOWN-08	TIC	ug/l																					
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	*2*	*U*	*2*	*U*	*2.4*	*U*	*2.1*	*U*	*2.3*	*U*	*2.2*	*U*									*2.4*
1-methylnaphthalene	90-12-0	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2,4-Dichlorophenol	120-83-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2,4-Dimethylphenol	105-67-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2,4-Dinitrophenol	51-28-5	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2-Chloronaphthalene	91-58-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2-Chlorophenol	95-57-8	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2-Methylnaphthalene	91-57-6	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
2-Nitroaniline	88-74-4	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*

Notes:

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VALUE is non-detect but the reporting limit exceeds the critiera.

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
				Sample:	EB-20221020		EB-20221021		EB-20221024		EB-20221026		EB-20221027		EB-20221028		EB-20221031		EB-20221101		EB-20221102		EB-20221103		EB-202
				Sample Date:	10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/2022		11/3/2022		11/4/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2-Nitrophenol	88-75-5	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
3-Nitroaniline	99-09-2	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
4-Chloroaniline	106-47-8	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
4-Nitroaniline	100-01-6	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
4-Nitrophenol	100-02-7	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Acenaphthene	83-32-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Acenaphthylene	208-96-8	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Acetophenone	98-86-2	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Anthracene	120-12-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Atrazine	1912-24-9	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Benzaldehyde	100-52-7	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Benzo(a)anthracene	56-55-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Benzo(a)pyrene	50-32-8	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Caprolactam	105-60-2	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Carbazole	86-74-8	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Chrysene	218-01-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Dibenzofuran	132-64-9	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Diethyl Phthalate	84-66-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Dimethyl Phthalate	131-11-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Di-N-Octylphthalate	117-84-0	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Fluoranthene	206-44-0	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Fluorene	86-73-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Hexachlorobenzene	118-74-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Hexachlorobutadiene	87-68-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Hexachloroethane	67-72-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Isophorone	78-59-1	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Naphthalene	91-20-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Nitrobenzene	98-95-3	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Pentachlorophenol	87-86-5	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Phenanthrene	85-01-8	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
Phenol	108-95-2	TRG	ug/l	*10*	*U*	*9.9*	*U*	*12*	*U*	*11*	*U*	*12*	*U*	*11*	*U*									*12*
Pyrene	129-00-0	TRG	ug/l	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.3*	*U*	*5.8*	*U*	*5.4*	*U*									*6*
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l	3.1	BNJ	3.8	BNJ																	
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l	4.6	NJ	5	NJ	4.8	NJ	3.6	NJ	3.5	NJ	3.7	NJ									3.8
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l							2.6	BNJ													
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
				Sample:	EB-20221020		EB-20221021		EB-20221024		EB-20221026		EB-20221027		EB-20221028		EB-20221031		EB-20221101		EB-20221102		EB-20221103		EB-202
				Sample Date:	10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/2022		11/3/2022		11/4/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l																					
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l					240	NBJ					220	NJ									
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l																					
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l									25	J											
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l																					
Unknown-02	UNKNOWN-02	TIC	ug/l																					
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l					*4*	*U*															*4*
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l					3.23	J															*4*

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Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
		Sample:	21104	EB-20221107		EB-20221108		EB-20221109		EB-20221114		EB-20221114-GW		EB-20221115		EB-20221115-GW		EB-20221116		EB-20221116-GW		EB-20221117	
		Sample Date:	2022	11/7/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022		11/16/2022		11/17/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																								
Aluminum	7429-90-5	TRG	ug/l																					
Antimony	7440-36-0	TRG	ug/l																					
Arsenic	7440-38-2	TRG	ug/l																					
Barium	7440-39-3	TRG	ug/l																					
Beryllium	7440-41-7	TRG	ug/l																					
Cadmium	7440-43-9	TRG	ug/l																					
Calcium	7440-70-2	TRG	ug/l																					
Chromium, Total	7440-47-3	TRG	ug/l																					
Cobalt	7440-48-4	TRG	ug/l																					
Copper	7440-50-8	TRG	ug/l																					
Iron	7439-89-6	TRG	ug/l																					
Lead	7439-92-1	TRG	ug/l																					
Magnesium	7439-95-4	TRG	ug/l																					
Manganese	7439-96-5	TRG	ug/l																					
Mercury	7439-97-6	TRG	ug/l																					
Nickel	7440-02-0	TRG	ug/l																					
Potassium	7440-09-7	TRG	ug/l																					
Selenium	7782-49-2	TRG	ug/l																					
Silver	7440-22-4	TRG	ug/l																					
Sodium	7440-23-5	TRG	ug/l																					
Thallium	7440-28-0	TRG	ug/l																					
Vanadium	7440-62-2	TRG	ug/l																					
Zinc	7440-66-6	TRG	ug/l																					
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	4.9	J+	2.4	J	5		5	U	5	U
Benzene	71-43-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ
Carbon Disulfide	75-15-0	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	21104	EB-20221107		EB-20221108		EB-20221109		EB-20221114		EB-20221114-GW		EB-20221115		EB-20221115-GW		EB-20221116		EB-20221116-GW		EB-20221117	
				Sample Date:	2022	11/7/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022		11/16/2022		11/17/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.64		0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																					
Acenaphthene	83-32-9	TIC	ug/l												2.2	NBJ								
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																		0.88	JN		
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l														0.66	JN						
Nonanol	124-19-6	TIC	ug/l	NJ	0.22	NJ	0.21	NJ	0.26	NJ	0.22	NJ											0.17	NJ
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l	NJ			0.11	NJ	0.09	NJ	0.1	NJ			0.11	NJ								
Total Alkane Tics	E966796	TIC	ug/l										0				0		0.1	J	0			
Unknown-01	UNKNOWN-01	TIC	ug/l	J	0.19	BJ	0.16	J	0.19	J	0.11	J			0.09	J			0.1	J			0.13	BJ
Unknown-02	UNKNOWN-02	TIC	ug/l	J	0.09	J	0.06	BJ	0.06	J	0.1	J			0.07	J			0.08	J			0.11	J
Unknown-03	UNKNOWN-03	TIC	ug/l		0.06	BJ	0.19	J			0.05	J			0.12	J			0.17	J			0.12	J
Unknown-04	UNKNOWN-04	TIC	ug/l		0.1	J	0.07	J							0.18	J							0.19	J
Unknown-05	UNKNOWN-05	TIC	ug/l		0.19	J	0.05	J							0.17	J								
Unknown-06	UNKNOWN-06	TIC	ug/l		0.07	J									0.07	J								
Unknown-07	UNKNOWN-07	TIC	ug/l												0.06	J								
Unknown-08	UNKNOWN-08	TIC	ug/l												0.06	J								
Unknown-09	UNKNOWN-09	TIC	ug/l												0.05	J								
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	U	2.3	U	2.3	U	2.1	U	2.4	U	2	U	2.1	U	2	U			2	U	2.2	U
1-methylnaphthalene	90-12-0	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2,4-Dichlorophenol	120-83-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2,4-Dimethylphenol	105-67-9	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2,4-Dinitrophenol	51-28-5	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	UJ	10	U	10	U			10	U	11	U
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2-Chloronaphthalene	91-58-7	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2-Chlorophenol	95-57-8	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2-Methylnaphthalene	91-57-6	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
2-Nitroaniline	88-74-4	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	UJ	5.2	U	5	U			5	U	5.6	U

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GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	21104	EB-20221107		EB-20221108		EB-20221109		EB-20221114		EB-20221114-GW		EB-20221115		EB-20221115-GW		EB-20221116		EB-20221116-GW		EB-20221117	
				Sample Date:	2022	11/7/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022		11/16/2022		11/17/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
3-Nitroaniline	99-09-2	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	UJ	10	U	10	U			10	U	11	U
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	UJ			10	UJ	11	U
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	1.7	J	5.2	U	1.6	J			1.8	J	5.6	U
4-Chloroaniline	106-47-8	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
4-Nitroaniline	100-01-6	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	UJ	10	U	10	U			10	U	11	U
4-Nitrophenol	100-02-7	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	UJ	10	U	10	U			10	U	11	U
Acenaphthene	83-32-9	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Acenaphthylene	208-96-8	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Acetophenone	98-86-2	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Anthracene	120-12-7	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Atrazine	1912-24-9	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Benzaldehyde	100-52-7	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Benzo(a)anthracene	56-55-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Benzo(a)pyrene	50-32-8	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Caprolactam	105-60-2	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Carbazole	86-74-8	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Chrysene	218-01-9	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Dibenzofuran	132-64-9	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Diethyl Phthalate	84-66-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Dimethyl Phthalate	131-11-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Di-N-Octylphthalate	117-84-0	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Fluoranthene	206-44-0	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Fluorene	86-73-7	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Hexachlorobenzene	118-74-1	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Hexachlorobutadiene	87-68-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Hexachloroethane	67-72-1	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Isophorone	78-59-1	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Naphthalene	91-20-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Nitrobenzene	98-95-3	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Pentachlorophenol	87-86-5	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Phenanthrene	85-01-8	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
Phenol	108-95-2	TRG	ug/l	U	12	U	11	U	10	U	12	U	10	U	10	U	10	U			10	U	11	U
Pyrene	129-00-0	TRG	ug/l	U	5.8	U	5.7	U	5.2	U	6.1	U	5	U	5.2	U	5	U			5	U	5.6	U
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l								2.9	BNJ			2.5	BNJ								
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l										2.7	JN			3.2	JN			4.2	JN		
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l	NJ	2.7	NJ	4	NJ	3.5	NJ	2.9	NJ			3.9	NJ							3.8	NJ
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	21104	EB-20221107		EB-20221108		EB-20221109		EB-20221114		EB-20221114-GW		EB-20221115		EB-20221115-GW		EB-20221116		EB-20221116-GW		EB-20221117	
				Sample Date:	2022	11/7/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022		11/16/2022		11/17/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzene	71-43-2	TIC	ug/l																						
Cyclohexanone	108-94-1	TIC	ug/l																						
Cyclohexene	110-83-8	TIC	ug/l																						
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																						
Ethylidenecyclobutane	1528-21-8	TIC	ug/l												170	BNJ							180	BNJ
Hexadecanoic Acid	57-10-3	TIC	ug/l																						
Isovanillin	621-59-0	TIC	ug/l																						
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																						
Nonanoic Acid	112-05-0	TIC	ug/l																						
Octadecanoic Acid	57-11-4	TIC	ug/l																						
Octanoic Acid	124-07-2	TIC	ug/l																						
Oleamide	301-02-0	TIC	ug/l																						
Pentaethylene Glycol	4792-15-8	TIC	ug/l																						
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																						
Tetraethylene Glycol	112-60-7	TIC	ug/l																						
Total Alkane Tics	E966796	TIC	ug/l										0				0				0				
Triphenylphosphine Oxide	791-28-6	TIC	ug/l								3.1	BNJ			2.1	BNJ									
Unknown-01	UNKNOWN-01	TIC	ug/l						4	BJ															
Unknown-02	UNKNOWN-02	TIC	ug/l																						
Parameters																									
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																						
Hardness (As Caco3)	HARD	TRG	mg/l																						
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																						
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																						
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l	*U*											*4*	*U*									
Sulfate (As So4)	14808-79-8	TRG	mg/l																						
Total Petroleum Hydrocarbons	TPH	TRG	mg/l	*U*											*4*	*U*									

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
Sample:				EB-20221117-GW		EB-20221118		EB-20221118-GW		EB-20221121-GW		EB-20221121-SBGW		EB-20221121-SBS		EB-20221122		EB-20221129		EB-20221206		EB-20221207		EB-202
Sample Date:				11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/2022		12/12
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Metals																								
Aluminum	7429-90-5	TRG	ug/l	*100*	*U*																			
Antimony	7440-36-0	TRG	ug/l	*20*	*U*																			
Arsenic	7440-38-2	TRG	ug/l	*8*	*U*																			
Barium	7440-39-3	TRG	ug/l	*100*	*U*																			
Beryllium	7440-41-7	TRG	ug/l	*3*	*U*																			
Cadmium	7440-43-9	TRG	ug/l	*3*	*U*																			
Calcium	7440-70-2	TRG	ug/l	*500*	*U*																			
Chromium, Total	7440-47-3	TRG	ug/l	*5*	*U*																			
Cobalt	7440-48-4	TRG	ug/l	*20*	*U*																			
Copper	7440-50-8	TRG	ug/l	*10*	*U*																			
Iron	7439-89-6	TRG	ug/l	*50*	*U*																			
Lead	7439-92-1	TRG	ug/l	*8*	*U*																			
Magnesium	7439-95-4	TRG	ug/l	*500*	*U*																			
Manganese	7439-96-5	TRG	ug/l	*5*	*U*																			
Mercury	7439-97-6	TRG	ug/l	*0.2*	*U*																			
Nickel	7440-02-0	TRG	ug/l	*20*	*U*																			
Potassium	7440-09-7	TRG	ug/l	*500*	*U*																			
Selenium	7782-49-2	TRG	ug/l	*20*	*U*																			
Silver	7440-22-4	TRG	ug/l	*5*	*U*																			
Sodium	7440-23-5	TRG	ug/l	*1000*	*U*																			
Thallium	7440-28-0	TRG	ug/l	*20*	*U*																			
Vanadium	7440-62-2	TRG	ug/l	*20*	*U*																			
Zinc	7440-66-6	TRG	ug/l	*20*	*U*																			
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*0.5*	*U*	0.06	J	*0.5*	*U*	*0.5*	*U*	0.06	J	0.05	J	0.06	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
2-Butanone	78-93-3	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
2-Hexanone	591-78-6	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Acetone	67-64-1	TRG	ug/l	12		*5*	*U*	4.4	J	14		*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	7.7
Benzene	71-43-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromochloromethane	74-97-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromodichloromethane	75-27-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromoform	75-25-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromomethane	74-83-9	TRG	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Disulfide	75-15-0	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chlorobenzene	108-90-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroethane	75-00-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroform	67-66-3	TRG	ug/l	0.6		0.52		*0.5*	*U*	0.63		*0.5*	*U*	0.53		0.67		0.48	J	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloromethane	74-87-3	TRG	ug/l	0.1	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Cyclohexane	110-82-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Dibromochloromethane	124-48-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
Sample:				EB-20221117-GW		EB-20221118		EB-20221118-GW		EB-20221121-GW		EB-20221121-SBGW		EB-20221121-SBS		EB-20221122		EB-20221129		EB-20221206		EB-20221207		EB-202
Sample Date:				11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/2022		12/12
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Dichlorodifluoromethane	75-71-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Ethylbenzene	100-41-4	TRG	ug/l	0.1	J	0.09	J	*0.5*	*U*	0.1	J	0.1	J	0.09	J	0.09	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Isopropylbenzene	98-82-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
M, P Xylenes	179601-23-1	TRG	ug/l	0.31	J	0.34	J	*0.5*	*U*	0.34	J	0.35	J	0.31	J	0.32	J	0.27	J	*0.5*	*U*	0.12	J	0.1
Methyl Acetate	79-20-9	TRG	ug/l	0.26	J	*0.5*	*U*	*0.5*	*U*	0.68		*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methylcyclohexane	108-87-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methylene Chloride	75-09-2	TRG	ug/l	0.31	J	*0.5*	*U*	*0.5*	*U*	0.3	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	0.13	J	0.13	J	*0.5*	*U*	0.14	J	0.14	J	0.13	J	0.13	J	*0.5*	*U*	*0.5*	*U*	0.07	J	0.06
Styrene	100-42-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.06	J	0.06	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	0.37	J	0.4	J	*0.5*	*U*	0.36	J	0.43	J	0.39	J	0.38	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	0.08
Toluene	108-88-3	TRG	ug/l	1.3		1.2		*0.5*	*U*	1.3		1.3		1.1		1.2		0.92		*0.5*	*U*	0.32	J	0.47
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	0.35	J	0.32	J	*0.5*	*U*	0.37	J	0.3	J	0.27	J	0.29	J	0.23	J	*0.5*	*U*	*0.5*	*U*	*0.5*
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Trichloroethene (TCE)	79-01-6	TRG	ug/l	0.22	J	0.2	J	*0.5*	*U*	0.22	J	0.21	J	0.17	J	0.18	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Trichlorofluoromethane	75-69-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Vinyl Chloride	75-01-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l											0.15	NJ	0.16	NJ							
3-Methylheptyl acetate	72218-58-7	TIC	ug/l									0.15	NJ											
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l					2.4	JN															
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l	0.51	JN																			
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l					0.68	JN															
Nonanol	124-19-6	TIC	ug/l			0.09	NJ					0.08	NJ											
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l	0				0		0												0.06	J	0.14
Unknown-01	UNKNOWN-01	TIC	ug/l			0.21	J					0.08	J	0.25	J	0.1	J					0.05	J	0.52
Unknown-02	UNKNOWN-02	TIC	ug/l			0.1	BJ					0.1	J	0.06	BJ	0.1	J					0.08	J	0.07
Unknown-03	UNKNOWN-03	TIC	ug/l			0.13	J					0.14	J	0.16	J	0.06	J							0.07
Unknown-04	UNKNOWN-04	TIC	ug/l			0.24	J					0.05	J	0.13	J	0.13	J							0.06
Unknown-05	UNKNOWN-05	TIC	ug/l			0.08	J					0.1	J	0.1	J	0.05	J							0.09
Unknown-06	UNKNOWN-06	TIC	ug/l			0.09	J							0.05	J	0.12	J							0.07
Unknown-07	UNKNOWN-07	TIC	ug/l													0.07	J							0.05
Unknown-08	UNKNOWN-08	TIC	ug/l																					
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	*2*	*U*			*2*	*U*	*2*	*U*			*2*	*U*	*2.2*	*U*	*2.1*	*U*	*2.1*	*U*	*2.2*	*U*	*2.4*
1-methylnaphthalene	90-12-0	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2,4-Dichlorophenol	120-83-2	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2,4-Dimethylphenol	105-67-9	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2,4-Dinitrophenol	51-28-5	TRG	ug/l	*10*	*UJ*			*10*	*UJ*	*10*	*UJ*			*10*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*12*
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2-Chloronaphthalene	91-58-7	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2-Chlorophenol	95-57-8	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2-Methylnaphthalene	91-57-6	TRG	ug/l	*5*	*U*			*5*	*U*	*5*	*U*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	*10*	*U*			*10*	*U*	*10*	*U*			*10*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*11*	*U*	*12*
2-Nitroaniline	88-74-4	TRG	ug/l	*5*	*UJ*			*5*	*UJ*	*5*	*UJ*			*5.1*	*U*	*5.6*	*U*	*5.2*	*U*	*5.3*	*U*	*5.6*	*U*	*6*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

			Location:	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
			Sample:	EB-20221117-GW		EB-20221118		EB-20221118-GW		EB-20221121-GW		EB-20221121-SBGW		EB-20221121-SBS		EB-20221122		EB-20221129		EB-20221206		EB-20221207		EB-202
			Sample Date:	11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/2022		12/12
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2-Nitrophenol	88-75-5	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
3-Nitroaniline	99-09-2	TRG	ug/l	10	UJ			10	UJ	10	UJ			10	U	11	U	10	U	11	U	11	U	12
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	5	U			1.7	J	5	U			5.1	U	5.6	U	5.2	U	3.7	J	5.6	U	6
4-Chloroaniline	106-47-8	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
4-Nitroaniline	100-01-6	TRG	ug/l	10	UJ			10	UJ	10	UJ			10	U	11	U	10	U	11	U	11	U	12
4-Nitrophenol	100-02-7	TRG	ug/l	10	UJ			10	UJ	10	UJ			10	U	11	U	10	U	11	U	11	U	12
Acenaphthene	83-32-9	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Acenaphthylene	208-96-8	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Acetophenone	98-86-2	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Anthracene	120-12-7	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Atrazine	1912-24-9	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Benzaldehyde	100-52-7	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Benzo(a)anthracene	56-55-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Benzo(a)pyrene	50-32-8	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Caprolactam	105-60-2	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Carbazole	86-74-8	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Chrysene	218-01-9	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Dibenzofuran	132-64-9	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Diethyl Phthalate	84-66-2	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Dimethyl Phthalate	131-11-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Di-N-Octylphthalate	117-84-0	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Fluoranthene	206-44-0	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Fluorene	86-73-7	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Hexachlorobenzene	118-74-1	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Hexachlorobutadiene	87-68-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Hexachloroethane	67-72-1	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Isophorone	78-59-1	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Naphthalene	91-20-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Nitrobenzene	98-95-3	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Pentachlorophenol	87-86-5	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	UJ	11	U	12
Phenanthrene	85-01-8	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
Phenol	108-95-2	TRG	ug/l	10	U			10	U	10	U			10	U	11	U	10	U	11	U	11	U	12
Pyrene	129-00-0	TRG	ug/l	5	U			5	U	5	U			5.1	U	5.6	U	5.2	U	5.3	U	5.6	U	6
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l	2.7	JN					2.7	JN													
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l													2.8	BNJ	2.1	NJ	2.2	BNJ			
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l					2.5	JN															
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l																	6.7	NJ			
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipme
		Sample:		EB-20221117-GW		EB-20221118		EB-20221118-GW		EB-20221121-GW		EB-20221121-SBGW		EB-20221121-SBS		EB-20221122		EB-20221129		EB-20221206		EB-20221207		EB-202
		Sample Date:		11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/2022		12/12
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l																					
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l											130	BNJ	210	BNJ							
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l																					
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l	0				0		0														
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l															2.2	J					
Unknown-02	UNKNOWN-02	TIC	ug/l															2.1	J					
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l	1.21	J																			
Hardness (As Caco3)	HARD	TRG	mg/l	*3.3*	*U*																			
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l	*0.05*	*U*																			
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l	*0.05*	*U*																			
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l																	*4*	*U*			*4*
Sulfate (As So4)	14808-79-8	TRG	mg/l	*1*	*U*																			
Total Petroleum Hydrocarbons	TPH	TRG	mg/l																	*4*	*U*			*4*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location: / Sample: / Sample Date:				nt Blank 21212 /2022		Equipment Blank EB-20221213 12/13/2022		Equipment Blank EB-20221215 12/15/2022		Equipment Blank EB-20221219 12/19/2022		Equipment Blank EB-20221221 12/21/2022		Equipment Blank EB-20230103 1/3/2023		Equipment Blank EB-20230104 1/4/2023		Equipment Blank EB-20230106 1/6/2023		Equipment Blank EB-20230110 1/10/2023		Equipment Blank EB-20230111 1/11/2023		Equipment Blank EB-20230112 1/12/2023	
Analyte	**CAS**	**Result Type**	**Unit**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Metals																										
Aluminum	7429-90-5	TRG	ug/l																							
Antimony	7440-36-0	TRG	ug/l																							
Arsenic	7440-38-2	TRG	ug/l																							
Barium	7440-39-3	TRG	ug/l																							
Beryllium	7440-41-7	TRG	ug/l																							
Cadmium	7440-43-9	TRG	ug/l																							
Calcium	7440-70-2	TRG	ug/l																							
Chromium, Total	7440-47-3	TRG	ug/l																							
Cobalt	7440-48-4	TRG	ug/l																							
Copper	7440-50-8	TRG	ug/l																							
Iron	7439-89-6	TRG	ug/l																							
Lead	7439-92-1	TRG	ug/l																							
Magnesium	7439-95-4	TRG	ug/l																							
Manganese	7439-96-5	TRG	ug/l																							
Mercury	7439-97-6	TRG	ug/l																							
Nickel	7440-02-0	TRG	ug/l																							
Potassium	7440-09-7	TRG	ug/l																							
Selenium	7782-49-2	TRG	ug/l																							
Silver	7440-22-4	TRG	ug/l																							
Sodium	7440-23-5	TRG	ug/l																							
Thallium	7440-28-0	TRG	ug/l																							
Vanadium	7440-62-2	TRG	ug/l																							
Zinc	7440-66-6	TRG	ug/l																							
VOCs																										
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
2-Butanone	78-93-3	TRG	ug/l	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
2-Hexanone	591-78-6	TRG	ug/l	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Acetone	67-64-1	TRG	ug/l		*5*	*U*	*5*	*U*	10		*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*
Benzene	71-43-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromochloromethane	74-97-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromodichloromethane	75-27-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromoform	75-25-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Bromomethane	74-83-9	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*
Carbon Disulfide	75-15-0	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chlorobenzene	108-90-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroethane	75-00-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloroform	67-66-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	0.48	J	*1*	*U*	*0.5*	*U*	0.61		*0.5*	*U*	0.45	J	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Chloromethane	74-87-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Cyclohexane	110-82-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*
Dibromochloromethane	124-48-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	21212	EB-20221213		EB-20221215		EB-20221219		EB-20221221		EB-20230103		EB-20230104		EB-20230106		EB-20230110		EB-20230111		EB-20230112	
				Sample Date:	/2022	12/13/2022		12/15/2022		12/19/2022		12/21/2022		1/3/2023		1/4/2023		1/6/2023		1/10/2023		1/11/2023		1/12/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	TRG	ug/l	J	0.17	J	0.19	J	0.5	U	0.26	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	J	0.08	J	0.1	J	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	J	0.16	J	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	TRG	ug/l	J	0.71		0.78		0.6		1.1		0.5	U	0.62		0.16	J	0.29	J	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	U	0.5	U	0.5	U	0.16	J	0.38	J	0.5	U	0.18	J	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l								0.28	NDJ												
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l																					
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l		4	NJ																		
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l								2.1	NBDJ												
Tetrahydrofuran	109-99-9	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l	J																				
Unknown-01	UNKNOWN-01	TIC	ug/l	BJ	0.05	J	0.1	J			0.1	DJ												
Unknown-02	UNKNOWN-02	TIC	ug/l	J	0.09	J	0.1	J			0.18	DJ												
Unknown-03	UNKNOWN-03	TIC	ug/l	J	0.06	J	0.07	J			0.24	DJ												
Unknown-04	UNKNOWN-04	TIC	ug/l	J	0.13	J	0.08	J																
Unknown-05	UNKNOWN-05	TIC	ug/l	J	0.05	J	0.16	J																
Unknown-06	UNKNOWN-06	TIC	ug/l	J	0.06	J	0.06	J																
Unknown-07	UNKNOWN-07	TIC	ug/l	J	0.07	J	0.06	J																
Unknown-08	UNKNOWN-08	TIC	ug/l				0.08	J																
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	U	2.1	U	2.1	U	2.1	U	2.1	U	2.1	U	2	U	2	U	2	U	2.1	U	2	U
1-methylnaphthalene	90-12-0	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2,4-Dichlorophenol	120-83-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2,4-Dimethylphenol	105-67-9	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2,4-Dinitrophenol	51-28-5	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2-Chloronaphthalene	91-58-7	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2-Chlorophenol	95-57-8	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2-Methylnaphthalene	91-57-6	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
2-Nitroaniline	88-74-4	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U

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				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	21212	EB-20221213		EB-20221215		EB-20221219		EB-20221221		EB-20230103		EB-20230104		EB-20230106		EB-20230110		EB-20230111		EB-20230112	
				Sample Date:	/2022	12/13/2022		12/15/2022		12/19/2022		12/21/2022		1/3/2023		1/4/2023		1/6/2023		1/10/2023		1/11/2023		1/12/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
3-Nitroaniline	99-09-2	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
4-Chloroaniline	106-47-8	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
4-Nitroaniline	100-01-6	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
4-Nitrophenol	100-02-7	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Acenaphthene	83-32-9	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	2.8	J	4.9	U	5.2	U	5.1	U
Acenaphthylene	208-96-8	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Acetophenone	98-86-2	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Anthracene	120-12-7	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Atrazine	1912-24-9	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Benzaldehyde	100-52-7	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Benzo(a)anthracene	56-55-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Benzo(a)pyrene	50-32-8	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Caprolactam	105-60-2	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Carbazole	86-74-8	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Chrysene	218-01-9	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Dibenzofuran	132-64-9	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	4.9	J	4.9	U	5.2	U	5.1	U
Diethyl Phthalate	84-66-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Dimethyl Phthalate	131-11-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Di-N-Octylphthalate	117-84-0	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Fluoranthene	206-44-0	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Fluorene	86-73-7	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	3.1	J	4.9	U	5.2	U	5.1	U
Hexachlorobenzene	118-74-1	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Hexachlorobutadiene	87-68-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Hexachloroethane	67-72-1	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Isophorone	78-59-1	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Naphthalene	91-20-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1		2.1	J	5.2	U	5.1	U
Nitrobenzene	98-95-3	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
Pentachlorophenol	87-86-5	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Phenanthrene	85-01-8	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.8		4.9	U	5.2	U	5.1	U
Phenol	108-95-2	TRG	ug/l	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U	9.8	U	10	U	10	U
Pyrene	129-00-0	TRG	ug/l	U	5.2	U	5.2	U	5.2	U	5.3	U	5.2	U	5	U	5.1	U	4.9	U	5.2	U	5.1	U
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l		3.9	BNJ	3.3	BNJ			2.5	BNJ							2	NJ	2.4	NJ	2.8	BNJ
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l		2.2	NJ	2.2	NJ			2.2	NJ			2.4	NJ					4.8	NJ	4.7	NJ
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	nt Blank	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
				Sample:	21212	EB-20221213		EB-20221215		EB-20221219		EB-20221221		EB-20230103		EB-20230104		EB-20230106		EB-20230110		EB-20230111		EB-20230112	
				Sample Date:	/2022	12/13/2022		12/15/2022		12/19/2022		12/21/2022		1/3/2023		1/4/2023		1/6/2023		1/10/2023		1/11/2023		1/12/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l																					
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l																		210	NJ		
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l																					
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l																					
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l		2.1	J	2.3	J			2.2	J			3	J	4.4	BJ	2.2	J				
Unknown-02	UNKNOWN-02	TIC	ug/l														2.6	J						
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l	*U*			*4*	*U*																
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l	*U*			1.4	J																

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Equipment Blank		Equipment Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
Sample:				EB-20230112-GW		EB-20230113		FB-20220912		FB-20220913		FB-20220914		FB-20220919		FB-20220921		FB-20220922		FB-20220923		FB-20220926		FB-202	
Sample Date:				1/12/2023		1/13/2023		9/12/2022		9/13/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		9/23/2022		9/26/2022		9/27/	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	
Metals																									
Aluminum	7429-90-5	TRG	ug/l																						
Antimony	7440-36-0	TRG	ug/l																						
Arsenic	7440-38-2	TRG	ug/l																						
Barium	7440-39-3	TRG	ug/l																						
Beryllium	7440-41-7	TRG	ug/l																						
Cadmium	7440-43-9	TRG	ug/l																						
Calcium	7440-70-2	TRG	ug/l																						
Chromium, Total	7440-47-3	TRG	ug/l																						
Cobalt	7440-48-4	TRG	ug/l																						
Copper	7440-50-8	TRG	ug/l																						
Iron	7439-89-6	TRG	ug/l																						
Lead	7439-92-1	TRG	ug/l																						
Magnesium	7439-95-4	TRG	ug/l																						
Manganese	7439-96-5	TRG	ug/l																						
Mercury	7439-97-6	TRG	ug/l																						
Nickel	7440-02-0	TRG	ug/l																						
Potassium	7440-09-7	TRG	ug/l																						
Selenium	7782-49-2	TRG	ug/l																						
Silver	7440-22-4	TRG	ug/l																						
Sodium	7440-23-5	TRG	ug/l																						
Thallium	7440-28-0	TRG	ug/l																						
Vanadium	7440-62-2	TRG	ug/l																						
Zinc	7440-66-6	TRG	ug/l																						
VOCs																									
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,1-Dichloroethane	75-34-3	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,1-Dichloroethene	75-35-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2-Dibromoethane	106-93-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2-Dichloroethane	107-06-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,2-Dichloropropane	78-87-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
2-Butanone	78-93-3	TRG	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	
2-Hexanone	591-78-6	TRG	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	
Acetone	67-64-1	TRG	ug/l	4.4	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	
Benzene	71-43-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Bromochloromethane	74-97-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Bromodichloromethane	75-27-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Bromoform	75-25-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Bromomethane	74-83-9	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Carbon Disulfide	75-15-0	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Carbon Tetrachloride	56-23-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Chlorobenzene	108-90-7	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Chloroethane	75-00-3	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Chloroform	67-66-3	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Chloromethane	74-87-3	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Cyclohexane	110-82-7	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Dibromochloromethane	124-48-1	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.
N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Equipment Blank		Equipment Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
Sample:				EB-20230112-GW		EB-20230113		FB-20220912		FB-20220913		FB-20220914		FB-20220919		FB-20220921		FB-20220922		FB-20220923		FB-20220926		FB-202	
Sample Date:				1/12/2023		1/13/2023		9/12/2022		9/13/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		9/23/2022		9/26/2022		9/27/	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Dichlorodifluoromethane	75-71-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Ethylbenzene	100-41-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Isopropylbenzene	98-82-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
M, P Xylenes	179601-23-1	TRG	ug/l	0.04	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methyl Acetate	79-20-9	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methylcyclohexane	108-87-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methylene Chloride	75-09-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Styrene	100-42-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Toluene	108-88-3	TRG	ug/l	0.5	U	0.5	U	0.08	J	0.5	U	0.05	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	0.5	U	0.5	U	0.12	J	0.28	J	0.14	J	0.5	U	0.2	J	0.5	U	0.5	U	0.5	U	0.41
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Trichloroethene (TCE)	79-01-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Trichlorofluoromethane	75-69-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Vinyl Chloride	75-01-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																					
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l																					
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l					0.12	NJ															
Total Alkane Tics	E966796	TIC	ug/l	0.047																				
Unknown-01	UNKNOWN-01	TIC	ug/l					0.2	J	0.12	J	0.12	J											
Unknown-02	UNKNOWN-02	TIC	ug/l					0.19	J	0.22	J	0.23	J											
Unknown-03	UNKNOWN-03	TIC	ug/l					0.19	J	0.2	J	0.18	J											
Unknown-04	UNKNOWN-04	TIC	ug/l							0.05	J	0.21	J											
Unknown-05	UNKNOWN-05	TIC	ug/l							0.2	J													
Unknown-06	UNKNOWN-06	TIC	ug/l																					
Unknown-07	UNKNOWN-07	TIC	ug/l																					
Unknown-08	UNKNOWN-08	TIC	ug/l																					
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	2	U	2.1	U	2	U	2	U	2	U	2.2	U	2.2	U	2	U	2	U	2	U	2
1-methylnaphthalene	90-12-0	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2,4-Dichlorophenol	120-83-2	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2,4-Dimethylphenol	105-67-9	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2,4-Dinitrophenol	51-28-5	TRG	ug/l	10	UJ	10	U	9.8	U	10	U	9.8	U	11	U	11	U	10	U	10	U	10	U	10
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2-Chloronaphthalene	91-58-7	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2-Chlorophenol	95-57-8	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2-Methylnaphthalene	91-57-6	TRG	ug/l	5.1	U	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	10	U	10	U	9.8	U	10	U	9.8	U	11	U	11	U	10	U	10	U	10	U	10
2-Nitroaniline	88-74-4	TRG	ug/l	5.1	UJ	5.2	U	4.9	U	5.1	U	4.9	U	5.6	U	5.4	U	5	U	5	U	5.1	U	5.1

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:	Equipment Blank		Equipment Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
		Sample:	EB-20230112-GW		EB-20230113		FB-20220912		FB-20220913		FB-20220914		FB-20220919		FB-20220921		FB-20220922		FB-20220923		FB-20220926		FB-202		
		Sample Date:	1/12/2023		1/13/2023		9/12/2022		9/13/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		9/23/2022		9/26/2022		9/27/		
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2-Nitrophenol	88-75-5	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
3-Nitroaniline	99-09-2	TRG	ug/l	*10*	*UJ*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	*10*	*UJ*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	1.1	J	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
4-Chloroaniline	106-47-8	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
4-Nitroaniline	100-01-6	TRG	ug/l	*10*	*UJ*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
4-Nitrophenol	100-02-7	TRG	ug/l	*10*	*UJ*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Acenaphthene	83-32-9	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Acenaphthylene	208-96-8	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Acetophenone	98-86-2	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Anthracene	120-12-7	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Atrazine	1912-24-9	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Benzaldehyde	100-52-7	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Benzo(a)anthracene	56-55-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Benzo(a)pyrene	50-32-8	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Caprolactam	105-60-2	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Carbazole	86-74-8	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Chrysene	218-01-9	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Dibenzofuran	132-64-9	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Diethyl Phthalate	84-66-2	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Dimethyl Phthalate	131-11-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Di-N-Octylphthalate	117-84-0	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Fluoranthene	206-44-0	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Fluorene	86-73-7	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Hexachlorobenzene	118-74-1	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Hexachlorobutadiene	87-68-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Hexachloroethane	67-72-1	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Isophorone	78-59-1	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Naphthalene	91-20-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Nitrobenzene	98-95-3	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Pentachlorophenol	87-86-5	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Phenanthrene	85-01-8	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
Phenol	108-95-2	TRG	ug/l	*10*	*U*	*10*	*U*	*9.8*	*U*	*10*	*U*	*9.8*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	
Pyrene	129-00-0	TRG	ug/l	*5.1*	*U*	*5.2*	*U*	*4.9*	*U*	*5.1*	*U*	*4.9*	*U*	*5.6*	*U*	*5.4*	*U*	*5*	*U*	*5*	*U*	*5.1*	*U*	*5.1*	
1-Hexadecene	629-73-2	TIC	ug/l																						
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																						
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																						
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l			2.9	BNJ	3.7	NBJ	3.3	NBJ	3.1	BNJ			3.6	BNJ	3.2	BNJ	3.1	BNJ	3.6	NJ	4.3	
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																						
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l	4.3	JN																				
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l			5	NJ	6.5	NJ	6.3	NJ	7	NJ	6.5	NJ	5.3	NJ	5.8	NJ	5.9	NJ	6.6	NJ	6	
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																						
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																						

Notes:

VALUE is non-detect.

VALUE exceeds relevant EPA RSL.

VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.

D Result was run under a dilution.

J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.

R Result was rejected by the validator.

U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Equipment Blank		Equipment Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
				Sample:	EB-20230112-GW		EB-20230113		FB-20220912		FB-20220913		FB-20220914		FB-20220919		FB-20220921		FB-20220922		FB-20220923		FB-20220926		FB-202	
				Sample Date:	1/12/2023		1/13/2023		9/12/2022		9/13/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		9/23/2022		9/26/2022		9/27/	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	
Benzene	71-43-2	TIC	ug/l																						
Cyclohexanone	108-94-1	TIC	ug/l					3.3	NJ	2.8	NJ														
Cyclohexene	110-83-8	TIC	ug/l											420	NJ	400	NJ								240
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																						
Ethylidenecyclobutane	1528-21-8	TIC	ug/l			210	NJ																		
Hexadecanoic Acid	57-10-3	TIC	ug/l																			4	NJ		
Isovanillin	621-59-0	TIC	ug/l																			2	NJ		
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																						
Nonanoic Acid	112-05-0	TIC	ug/l																			4.9	NJ		
Octadecanoic Acid	57-11-4	TIC	ug/l																						
Octanoic Acid	124-07-2	TIC	ug/l																			3.8	NJ		
Oleamide	301-02-0	TIC	ug/l																						
Pentaethylene Glycol	4792-15-8	TIC	ug/l																						
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																						
Tetraethylene Glycol	112-60-7	TIC	ug/l																						
Total Alkane Tics	E966796	TIC	ug/l	0.82										16	J										
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																						
Unknown-01	UNKNOWN-01	TIC	ug/l									4.1	J	4.4	BJ	2.6	J	2.6	J			13	J		
Unknown-02	UNKNOWN-02	TIC	ug/l									2.2	J									8.7	J		
Parameters																									
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																						
Hardness (As Caco3)	HARD	TRG	mg/l																						
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																						
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																						
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l																						
Sulfate (As So4)	14808-79-8	TRG	mg/l																						
Total Petroleum Hydrocarbons	TPH	TRG	mg/l					2.53	J			2	J					1.57	J	*4.4*	*U*				

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 20927	FB-20220928		FB-20220929		FB-20221003		FB-20221004		FB-20221005		FB-20221006		FB-20221010		FB-20221011		FB-20221012		FB-20221013	
				Sample Date: 2022	9/28/2022		9/29/2022		10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																								
Aluminum	7429-90-5	TRG	ug/l																					
Antimony	7440-36-0	TRG	ug/l																					
Arsenic	7440-38-2	TRG	ug/l																					
Barium	7440-39-3	TRG	ug/l																					
Beryllium	7440-41-7	TRG	ug/l																					
Cadmium	7440-43-9	TRG	ug/l																					
Calcium	7440-70-2	TRG	ug/l																					
Chromium, Total	7440-47-3	TRG	ug/l																					
Cobalt	7440-48-4	TRG	ug/l																					
Copper	7440-50-8	TRG	ug/l																					
Iron	7439-89-6	TRG	ug/l																					
Lead	7439-92-1	TRG	ug/l																					
Magnesium	7439-95-4	TRG	ug/l																					
Manganese	7439-96-5	TRG	ug/l																					
Mercury	7439-97-6	TRG	ug/l																					
Nickel	7440-02-0	TRG	ug/l																					
Potassium	7440-09-7	TRG	ug/l																					
Selenium	7782-49-2	TRG	ug/l																					
Silver	7440-22-4	TRG	ug/l																					
Sodium	7440-23-5	TRG	ug/l																					
Thallium	7440-28-0	TRG	ug/l																					
Vanadium	7440-62-2	TRG	ug/l																					
Zinc	7440-66-6	TRG	ug/l																					
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Disulfide	75-15-0	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.38	J	0.34	J	0.3	J	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

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U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 20927	FB-20220928		FB-20220929		FB-20221003		FB-20221004		FB-20221005		FB-20221006		FB-20221010		FB-20221011		FB-20221012		FB-20221013	
				Sample Date: 2022	9/28/2022		9/29/2022		10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	J	0.18	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																					
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l																		0.22	NJ	0.19	NJ
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l								0.1	NJ	0.09	NJ	0.12	NJ	0.11	NJ	0.12	NJ	0.11	NJ		
Total Alkane Tics	E966796	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l				2.5	J	0.16	J	0.15	J	0.05	J	0.08	BJ	0.13	BJ	0.16	J	0.14	J	0.33	J
Unknown-02	UNKNOWN-02	TIC	ug/l						0.1	J	0.08	J	0.15	J	0.16	J	0.19	J	0.09	J	0.08	J	0.12	J
Unknown-03	UNKNOWN-03	TIC	ug/l						0.08	J	0.09	J	0.11	J	0.11	J	0.1	J	0.21	J			0.19	J
Unknown-04	UNKNOWN-04	TIC	ug/l						0.1	J	0.16	J	0.18	J	0.19	J	0.24	J					0.12	J
Unknown-05	UNKNOWN-05	TIC	ug/l						0.18	J														
Unknown-06	UNKNOWN-06	TIC	ug/l																					
Unknown-07	UNKNOWN-07	TIC	ug/l																					
Unknown-08	UNKNOWN-08	TIC	ug/l																					
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	U	2.3	U	2	U	2.4	U	2.1	U	2.1	U	2	U	2	U	2	U	1.9	U	2	U
1-methylnaphthalene	90-12-0	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2,4-Dichlorophenol	120-83-2	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2,4-Dimethylphenol	105-67-9	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2,4-Dinitrophenol	51-28-5	TRG	ug/l	U	11	U	10	U	12	U	10	U	10	U	10	U	10	U	10	U	9.7	U	9.9	U
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2-Chloronaphthalene	91-58-7	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2-Chlorophenol	95-57-8	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2-Methylnaphthalene	91-57-6	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	U	11	U	10	U	12	U	10	U	10	U	10	U	10	U	10	U	9.7	U	9.9	U
2-Nitroaniline	88-74-4	TRG	ug/l	U	5.7	U	5.1	U	6.1	U	5.2	U	5.2	U	5	U	5	U	5	U	4.9	U	5	U

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank			Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 20927			FB-20220928		FB-20220929		FB-20221003		FB-20221004		FB-20221005		FB-20221006		FB-20221010		FB-20221011		FB-20221012		FB-20221013	
				Sample Date: 2022			9/28/2022		9/29/2022		10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
3-Nitroaniline	99-09-2	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	*U*	17		17		16		17		18		17		17		12		11		*5*	*U*
4-Chloroaniline	106-47-8	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
4-Nitroaniline	100-01-6	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
4-Nitrophenol	100-02-7	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Acenaphthene	83-32-9	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Acenaphthylene	208-96-8	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Acetophenone	98-86-2	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Anthracene	120-12-7	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Atrazine	1912-24-9	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Benzaldehyde	100-52-7	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Benzo(a)anthracene	56-55-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Benzo(a)pyrene	50-32-8	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Caprolactam	105-60-2	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Carbazole	86-74-8	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Chrysene	218-01-9	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Dibenzofuran	132-64-9	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Diethyl Phthalate	84-66-2	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Dimethyl Phthalate	131-11-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Di-N-Octylphthalate	117-84-0	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Fluoranthene	206-44-0	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Fluorene	86-73-7	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Hexachlorobenzene	118-74-1	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Hexachlorobutadiene	87-68-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Hexachloroethane	67-72-1	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Isophorone	78-59-1	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Naphthalene	91-20-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Nitrobenzene	98-95-3	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Pentachlorophenol	87-86-5	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Phenanthrene	85-01-8	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
Phenol	108-95-2	TRG	ug/l	*U*	*11*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*10*	*U*	*9.7*	*U*	*9.9*	*U*
Pyrene	129-00-0	TRG	ug/l	*U*	*5.7*	*U*	*5.1*	*U*	*6.1*	*U*	*5.2*	*U*	*5.2*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*4.9*	*U*	*5*	*U*
1-Hexadecene	629-73-2	TIC	ug/l																							
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																							
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																							
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l	BNJ			3.2	BNJ	4.3	BNJ	3.5	BNJ	4.4	BNJ	4.1	BNJ	4.1	BNJ								
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																							
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																							
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l	NJ			6.5	NJ	5.6	NJ	4.5	NJ	6.8	NJ	5.7	NJ	4.6	NJ	2.9	NJ	2.7	NJ	4.9	NJ		
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																							
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																							

Notes:

VALUE is non-detect.

VALUE exceeds relevant EPA RSL.

VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.

D Result was run under a dilution.

J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.

R Result was rejected by the validator.

U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample:	20927	FB-20220928		FB-20220929		FB-20221003		FB-20221004		FB-20221005		FB-20221006		FB-20221010		FB-20221011		FB-20221012		FB-20221013	
				Sample Date:	2022	9/28/2022		9/29/2022		10/3/2022		10/4/2022		10/5/2022		10/6/2022		10/10/2022		10/11/2022		10/12/2022		10/13/2022	
Analyte	**CAS**	**Result Type**	**Unit**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l	NJ																				
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l						2.5	NJ														
Ethylidenecyclobutane	1528-21-8	TIC	ug/l																					
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l				2.1	NBJ																
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l				2.1	NJ																
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l				3.8	BNJ																
Tetraethylene Glycol	112-60-7	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l																					
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l						2.6	J	2.6	BJ	2.7	J	2.6	J	2.4	J						
Unknown-02	UNKNOWN-02	TIC	ug/l																					
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l		*4.4*	*U*			*4*	*U*									*4*	*U*	*4*	*U*		
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l		*4.4*	*U*			*4*	*U*									*4*	*U*	*4*	*U*		

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
Sample:				FB-20221014		FB-20221018		FB-20221020		FB-20221021		FB-20221024		FB-20221026		FB-20221027		FB-20221028		FB-20221031		FB-20221101		FB-202	
Sample Date:				10/14/2022		10/18/2022		10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Metals																										
Aluminum	7429-90-5	TRG	ug/l																							
Antimony	7440-36-0	TRG	ug/l																							
Arsenic	7440-38-2	TRG	ug/l																							
Barium	7440-39-3	TRG	ug/l																							
Beryllium	7440-41-7	TRG	ug/l																							
Cadmium	7440-43-9	TRG	ug/l																							
Calcium	7440-70-2	TRG	ug/l																							
Chromium, Total	7440-47-3	TRG	ug/l																							
Cobalt	7440-48-4	TRG	ug/l																							
Copper	7440-50-8	TRG	ug/l																							
Iron	7439-89-6	TRG	ug/l																							
Lead	7439-92-1	TRG	ug/l																							
Magnesium	7439-95-4	TRG	ug/l																							
Manganese	7439-96-5	TRG	ug/l																							
Mercury	7439-97-6	TRG	ug/l																							
Nickel	7440-02-0	TRG	ug/l																							
Potassium	7440-09-7	TRG	ug/l																							
Selenium	7782-49-2	TRG	ug/l																							
Silver	7440-22-4	TRG	ug/l																							
Sodium	7440-23-5	TRG	ug/l																							
Thallium	7440-28-0	TRG	ug/l																							
Vanadium	7440-62-2	TRG	ug/l																							
Zinc	7440-66-6	TRG	ug/l																							
VOCs																										
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
2-Butanone	78-93-3	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
2-Hexanone	591-78-6	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Acetone	67-64-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Benzene	71-43-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromochloromethane	74-97-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromodichloromethane	75-27-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromoform	75-25-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromomethane	74-83-9	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Disulfide	75-15-0	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chlorobenzene	108-90-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroethane	75-00-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroform	67-66-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloromethane	74-87-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Cyclohexane	110-82-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Dibromochloromethane	124-48-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
		Sample:		FB-20221014		FB-20221018		FB-20221020		FB-20221021		FB-20221024		FB-20221026		FB-20221027		FB-20221028		FB-20221031		FB-20221101		FB-202	
		Sample Date:		10/14/2022		10/18/2022		10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	
Dichlorodifluoromethane	75-71-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Ethylbenzene	100-41-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Isopropylbenzene	98-82-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
M, P Xylenes	179601-23-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Methyl Acetate	79-20-9	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Methylcyclohexane	108-87-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Methylene Chloride	75-09-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Styrene	100-42-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Toluene	108-88-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Trichloroethene (TCE)	79-01-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Trichlorofluoromethane	75-69-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
Vinyl Chloride	75-01-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																					
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l					0.21	NJ	0.18	NJ	0.2	NJ	0.26	NJ	0.31	NJ	0.23	NJ	0.22	NJ	0.19	NJ	0.21	
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l	0.1	NJ	0.09	NJ	0.08	NJ	0.09	NJ	0.1	NJ	0.1	NJ	0.1	NJ	0.11	NJ	0.09	NJ	0.11	NJ		
Total Alkane Tics	E966796	TIC	ug/l											0.09	J	0.1	J								
Unknown-01	UNKNOWN-01	TIC	ug/l	0.16	J	0.2	J	0.16	BJ	0.21	BJ	0.34	J					0.06	J	0.2	J	0.21	J	0.06	
Unknown-02	UNKNOWN-02	TIC	ug/l	0.2	J	0.11	J	0.05	BJ	0.06	BJ	0.07	J					0.29	J	0.1	J	0.09	J	0.09	
Unknown-03	UNKNOWN-03	TIC	ug/l	0.11	J	0.2	J	0.19	J	0.05	J	0.09	J					0.12	J					0.24	
Unknown-04	UNKNOWN-04	TIC	ug/l	0.19	J			0.09	J	0.09	J	0.07	J					0.05	J					0.09	
Unknown-05	UNKNOWN-05	TIC	ug/l							0.05	J	0.08	J											0.07	
Unknown-06	UNKNOWN-06	TIC	ug/l																						
Unknown-07	UNKNOWN-07	TIC	ug/l																						
Unknown-08	UNKNOWN-08	TIC	ug/l																						
Unknown-09	UNKNOWN-09	TIC	ug/l																						
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	*1.9*	*U*	*2.2*	*U*	*2*	*U*	*2*	*U*	*2.4*	*U*	*2.1*	*U*	*2.2*	*U*	*2.1*	*U*						
1-methylnaphthalene	90-12-0	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2,4-Dichlorophenol	120-83-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2,4-Dimethylphenol	105-67-9	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2,4-Dinitrophenol	51-28-5	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*						
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2-Chloronaphthalene	91-58-7	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2-Chlorophenol	95-57-8	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2-Methylnaphthalene	91-57-6	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*						
2-Nitroaniline	88-74-4	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*						

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
				Sample:	FB-20221014		FB-20221018		FB-20221020		FB-20221021		FB-20221024		FB-20221026		FB-20221027		FB-20221028		FB-20221031		FB-20221101		FB-202
				Sample Date:	10/14/2022		10/18/2022		10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2-Nitrophenol	88-75-5	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
3-Nitroaniline	99-09-2	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
4-Chloroaniline	106-47-8	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
4-Nitroaniline	100-01-6	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
4-Nitrophenol	100-02-7	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Acenaphthene	83-32-9	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Acenaphthylene	208-96-8	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Acetophenone	98-86-2	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Anthracene	120-12-7	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Atrazine	1912-24-9	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Benzaldehyde	100-52-7	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Benzo(a)anthracene	56-55-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Benzo(a)pyrene	50-32-8	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Caprolactam	105-60-2	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Carbazole	86-74-8	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Chrysene	218-01-9	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Dibenzofuran	132-64-9	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Diethyl Phthalate	84-66-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Dimethyl Phthalate	131-11-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Di-N-Octylphthalate	117-84-0	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Fluoranthene	206-44-0	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Fluorene	86-73-7	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Hexachlorobenzene	118-74-1	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Hexachlorobutadiene	87-68-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Hexachloroethane	67-72-1	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Isophorone	78-59-1	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Naphthalene	91-20-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Nitrobenzene	98-95-3	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Pentachlorophenol	87-86-5	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Phenanthrene	85-01-8	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
Phenol	108-95-2	TRG	ug/l	*9.7*	*U*	*11*	*U*	*10*	*U*	*10*	*U*	*12*	*U*	*10*	*U*	*11*	*U*	*11*	*U*					
Pyrene	129-00-0	TRG	ug/l	*4.8*	*U*	*5.4*	*U*	*5.1*	*U*	*5*	*U*	*5.9*	*U*	*5.2*	*U*	*5.4*	*U*	*5.3*	*U*					
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l			3.9	BNJ	3.5	BNJ	3.8	BNJ													
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l	4.4	NJ	3.9	NJ	4.3	NJ	5	NJ	4.5	NJ	3.6	NJ	3.9	NJ	2.2	NJ					
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l															3.5	BNJ					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
				Sample:	FB-20221014		FB-20221018		FB-20221020		FB-20221021		FB-20221024		FB-20221026		FB-20221027		FB-20221028		FB-20221031		FB-20221101		FB-202
				Sample Date:	10/14/2022		10/18/2022		10/20/2022		10/21/2022		10/24/2022		10/26/2022		10/27/2022		10/28/2022		10/31/2022		11/1/2022		11/2/
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Benzene	71-43-2	TIC	ug/l									2.8	NJ											
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l									250	NJ											
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l																					
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l																					
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l																					
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l									4.8	BJ											
Unknown-02	UNKNOWN-02	TIC	ug/l																					
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l			*4*	*U*					*4*	*U*											
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l			1.73	J					1.56	J											

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 21102	FB-20221103		FB-20221104		FB-20221107		FB-20221108		FB-20221109		FB-20221114		FB-20221114-GW		FB-20221115		FB-20221115-GW		FB-20221116	
				Sample Date: 2022	11/3/2022		11/4/2022		10/28/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																								
Aluminum	7429-90-5	TRG	ug/l																					
Antimony	7440-36-0	TRG	ug/l																					
Arsenic	7440-38-2	TRG	ug/l																					
Barium	7440-39-3	TRG	ug/l																					
Beryllium	7440-41-7	TRG	ug/l																					
Cadmium	7440-43-9	TRG	ug/l																					
Calcium	7440-70-2	TRG	ug/l																					
Chromium, Total	7440-47-3	TRG	ug/l																					
Cobalt	7440-48-4	TRG	ug/l																					
Copper	7440-50-8	TRG	ug/l																					
Iron	7439-89-6	TRG	ug/l																					
Lead	7439-92-1	TRG	ug/l																					
Magnesium	7439-95-4	TRG	ug/l																					
Manganese	7439-96-5	TRG	ug/l																					
Mercury	7439-97-6	TRG	ug/l																					
Nickel	7440-02-0	TRG	ug/l																					
Potassium	7440-09-7	TRG	ug/l																					
Selenium	7782-49-2	TRG	ug/l																					
Silver	7440-22-4	TRG	ug/l																					
Sodium	7440-23-5	TRG	ug/l																					
Thallium	7440-28-0	TRG	ug/l																					
Vanadium	7440-62-2	TRG	ug/l																					
Zinc	7440-66-6	TRG	ug/l																					
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ
Carbon Disulfide	75-15-0	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U	0.5	U
Dibromochloromethane	124-48-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:	Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
		Sample:	21102	FB-20221103		FB-20221104		FB-20221107		FB-20221108		FB-20221109		FB-20221114		FB-20221114-GW		FB-20221115		FB-20221115-GW		FB-20221116			
		Sample Date:	2022	11/3/2022		11/4/2022		10/28/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022			
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
M, P Xylenes	179601-23-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.76		0.5	U		
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methylene Chloride	75-09-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	U		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Toluene	108-88-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U		
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																						
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																						
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																						
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																						
Acenaphthene	83-32-9	TIC	ug/l																						
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																						
Benzo[c]thiophene	000270-82-6	TIC	ug/l																						
Decyl Aldehyde	112-31-2	TIC	ug/l																						
Indane	000496-11-7	TIC	ug/l																						
Naphthalene	91-20-3	TIC	ug/l																						
Nonanal	000124-19-6	TIC	ug/l																						
Nonanol	124-19-6	TIC	ug/l	NJ	0.22	NJ			0.24	NJ	0.22	NJ	0.26	NJ					0.17	NJ						
Octanal	124-13-0	TIC	ug/l																						
Pentafluorobenzene	363-72-4	TIC	ug/l																						
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																						
Sulfur dioxide	007446-09-5	TIC	ug/l																	0.96	JN				
Sulfur dioxide	7446.09-5	TIC	ug/l																						
Tetrahydrofuran	109-99-9	TIC	ug/l		0.09	NJ	0.09	NJ	0.09	NJ	0.1	NJ	0.1	NJ					0.11	NJ			0.09	NJ		
Total Alkane Tics	E966796	TIC	ug/l													0				0		0.08	J		
Unknown-01	UNKNOWN-01	TIC	ug/l	J	0.05	J	0.22	J	0.22	BJ	0.17	J	0.2	J	0.11	J			0.11	J			0.06	J		
Unknown-02	UNKNOWN-02	TIC	ug/l	J	0.21	J	0.08	J	0.17	J	0.19	J	0.06	J	0.12	J			0.08	J			0.13	J		
Unknown-03	UNKNOWN-03	TIC	ug/l	J	0.08	J	0.23	J	0.06	J	0.06	J			0.1	J			0.07	J						
Unknown-04	UNKNOWN-04	TIC	ug/l	J					0.07	J					0.22	J			0.07	J						
Unknown-05	UNKNOWN-05	TIC	ug/l	J																						
Unknown-06	UNKNOWN-06	TIC	ug/l																						
Unknown-07	UNKNOWN-07	TIC	ug/l																						
Unknown-08	UNKNOWN-08	TIC	ug/l																						
Unknown-09	UNKNOWN-09	TIC	ug/l																						
SVOCs																									
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l				2.1	U	2.2	U	2.2	U	2.1	U	2.2	U	2	U	2	U	2	U				
1-methylnaphthalene	90-12-0	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2,4-Dichlorophenol	120-83-2	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2,4-Dimethylphenol	105-67-9	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2,4-Dinitrophenol	51-28-5	TRG	ug/l				11	U	11	U	11	U	10	U	11	U	10	U	9.9	U	10	UJ				
2,4-Dinitrotoluene	121-14-2	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2,6-Dinitrotoluene	606-20-2	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2-Chloronaphthalene	91-58-7	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2-Chlorophenol	95-57-8	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2-Methylnaphthalene	91-57-6	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	U				
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l				11	U	11	U	11	U	10	U	11	U	10	U	9.9	U	10	U				
2-Nitroaniline	88-74-4	TRG	ug/l				5.3	U	5.4	U	5.4	U	5.2	U	5.5	U	5	U	5	U	5	UJ				

Notes:

VALUE is non-detect.

VALUE exceeds relevant EPA RSL.

VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.

D Result was run under a dilution.

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 21102	FB-20221103		FB-20221104		FB-20221107		FB-20221108		FB-20221109		FB-20221114		FB-20221114-GW		FB-20221115		FB-20221115-GW		FB-20221116	
				Sample Date: 2022	11/3/2022		11/4/2022		10/28/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
3-Nitroaniline	99-09-2	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*UJ*		
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	2	J	*5*	*U*	2	J		
4-Chloroaniline	106-47-8	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
4-Nitroaniline	100-01-6	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*UJ*		
4-Nitrophenol	100-02-7	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*UJ*		
Acenaphthene	83-32-9	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Acenaphthylene	208-96-8	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Acetophenone	98-86-2	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Anthracene	120-12-7	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Atrazine	1912-24-9	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Benzaldehyde	100-52-7	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Benzo(a)anthracene	56-55-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Benzo(a)pyrene	50-32-8	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Benzo(b)fluoranthene	205-99-2	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Benzo(k)fluoranthene	207-08-9	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Caprolactam	105-60-2	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Carbazole	86-74-8	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Chrysene	218-01-9	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Dibenzofuran	132-64-9	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Diethyl Phthalate	84-66-2	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Dimethyl Phthalate	131-11-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Di-N-Octylphthalate	117-84-0	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Fluoranthene	206-44-0	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Fluorene	86-73-7	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Hexachlorobenzene	118-74-1	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Hexachlorobutadiene	87-68-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Hexachloroethane	67-72-1	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Isophorone	78-59-1	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Naphthalene	91-20-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Nitrobenzene	98-95-3	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Pentachlorophenol	87-86-5	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Phenanthrene	85-01-8	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
Phenol	108-95-2	TRG	ug/l				*11*	*U*	*11*	*U*	*11*	*U*	*10*	*U*	*11*	*U*	*10*	*U*	*9.9*	*U*	*10*	*U*		
Pyrene	129-00-0	TRG	ug/l				*5.3*	*U*	*5.4*	*U*	*5.4*	*U*	*5.2*	*U*	*5.5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*		
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l												2.7	BNJ			2.4	BNJ				
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																		15	JN		
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l														2.7	JN			3	JN		
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l				3.3	NJ	3.2	NJ	4.3	NJ			3.2	NJ			3.9	NJ				
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 21102	FB-20221103		FB-20221104		FB-20221107		FB-20221108		FB-20221109		FB-20221114		FB-20221114-GW		FB-20221115		FB-20221115-GW		FB-20221116	
				Sample Date: 2022	11/3/2022		11/4/2022		10/28/2022		11/8/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/15/2022		11/16/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l																					
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l												180	BNJ								
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l																					
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l														0				0			
Triphenylphosphine Oxide	791-28-6	TIC	ug/l												2.4	BNJ			2.1	BNJ				
Unknown-01	UNKNOWN-01	TIC	ug/l										4.9	BJ										
Unknown-02	UNKNOWN-02	TIC	ug/l										3.3	J										
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l				*4*	*U*											*4*	*U*				
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l				*4*	*U*											1.76	J				

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Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
Sample:				FB-20221116-GW		FB-20221117		FB-20221117-GW		FB-20221118		FB-20221118-GW		FB-20221121		FB-20221121-GW		FB-20221122		FB-20221129		FB-20221206		FB-202	
Sample Date:				11/16/2022		11/17/2022		11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Metals																									
Aluminum	7429-90-5	TRG	ug/l					*100*	U																
Antimony	7440-36-0	TRG	ug/l					*20*	U																
Arsenic	7440-38-2	TRG	ug/l					*8*	U																
Barium	7440-39-3	TRG	ug/l					*100*	U																
Beryllium	7440-41-7	TRG	ug/l					*3*	U																
Cadmium	7440-43-9	TRG	ug/l					*3*	U																
Calcium	7440-70-2	TRG	ug/l					*500*	U																
Chromium, Total	7440-47-3	TRG	ug/l					*5*	U																
Cobalt	7440-48-4	TRG	ug/l					*20*	U																
Copper	7440-50-8	TRG	ug/l					*10*	U																
Iron	7439-89-6	TRG	ug/l					*50*	U																
Lead	7439-92-1	TRG	ug/l					*8*	U																
Magnesium	7439-95-4	TRG	ug/l					*500*	U																
Manganese	7439-96-5	TRG	ug/l					24.3																	
Mercury	7439-97-6	TRG	ug/l					*0.2*	U																
Nickel	7440-02-0	TRG	ug/l					*20*	U																
Potassium	7440-09-7	TRG	ug/l					*500*	U																
Selenium	7782-49-2	TRG	ug/l					*20*	U																
Silver	7440-22-4	TRG	ug/l					*5*	U																
Sodium	7440-23-5	TRG	ug/l					*1000*	U																
Thallium	7440-28-0	TRG	ug/l					*20*	U																
Vanadium	7440-62-2	TRG	ug/l					*20*	U																
Zinc	7440-66-6	TRG	ug/l					*20*	U																
VOCs																									
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*0.5*	U	*0.5*	U	0.08	J	0.05	J	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
2-Butanone	78-93-3	TRG	ug/l	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*
2-Hexanone	591-78-6	TRG	ug/l	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U	*5*
Acetone	67-64-1	TRG	ug/l	4.2	J	*5*	U	14		*5*	U	4.2	J	*5*	U	12		*5*	U	*5*	U	*5*	U	*5*	U	*5*
Benzene	71-43-2	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Bromochloromethane	74-97-5	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Bromodichloromethane	75-27-4	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Bromoform	75-25-2	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Bromomethane	74-83-9	TRG	ug/l	*0.5*	U	*0.5*	UJ	*0.5*	U	*0.5*	UJ	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Carbon Disulfide	75-15-0	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Chlorobenzene	108-90-7	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Chloroethane	75-00-3	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Chloroform	67-66-3	TRG	ug/l	*0.5*	U	*0.5*	U	0.78		0.57		*0.5*	U	*0.5*	U	0.65		0.7		0.48	J	*0.5*	U	*0.5*	U	*0.5*
Chloromethane	74-87-3	TRG	ug/l	*0.5*	U	*0.5*	U	0.09	J	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Cyclohexane	110-82-7	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*
Dibromochloromethane	124-48-1	TRG	ug/l	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*	U	*0.5*

Notes:

VALUE is non-detect.

VALUE exceeds relevant EPA RSL.

VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.

D Result was run under a dilution.

J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.

R Result was rejected by the validator.

U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
		Sample:		FB-20221116-GW		FB-20221117		FB-20221117-GW		FB-20221118		FB-20221118-GW		FB-20221121		FB-20221121-GW		FB-20221122		FB-20221129		FB-20221206		FB-202	
		Sample Date:		11/16/2022		11/17/2022		11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Dichlorodifluoromethane	75-71-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Ethylbenzene	100-41-4	TRG	ug/l	0.5	U	0.5	U	0.14	J	0.09	J	0.5	U	0.5	U	0.11	J	0.1	J	0.5	U	0.5	U	0.5
Isopropylbenzene	98-82-8	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
M, P Xylenes	179601-23-1	TRG	ug/l	0.5	U	0.5	U	0.45	J	0.33	J	0.5	U	0.36	J	0.37	J	0.33	J	0.5	U	0.5	U	0.15
Methyl Acetate	79-20-9	TRG	ug/l	0.5	U	0.5	U	0.37	J	0.5	U	0.5	U	0.5	U	0.56		0.5	U	0.5	U	0.5	U	0.5
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methylcyclohexane	108-87-2	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Methylene Chloride	75-09-2	TRG	ug/l	0.5	UJ	0.5	U	0.36	J	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U	0.5	U	0.5
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	0.5	U	0.5	U	0.17	J	0.13	J	0.5	U	0.14	J	0.15	J	0.13	J	0.5	U	0.5	U	0.08
Styrene	100-42-5	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.07	J	0.5	U	0.5	U	0.5	U	0.06	J	0.5	U	0.5	U	0.5
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	0.5	U	0.5	U	0.49	J	0.39	J	0.5	U	0.45	J	0.42	J	0.43	J	0.5	U	0.5	U	0.14
Toluene	108-88-3	TRG	ug/l	0.5	U	0.5	U	1.7		1.2		0.5	U	1.3		1.4		1.2		0.9		0.5	U	0.63
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	0.5	U	0.5	U	0.46	J	0.42	J	0.5	U	0.5	U	0.41	J	0.29	J	0.23	J	0.5	U	0.5
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Trichloroethene (TCE)	79-01-6	TRG	ug/l	0.5	U	0.5	U	0.29	J	0.19	J	0.5	U	0.21	J	0.23	J	0.18	J	0.5	U	0.5	U	0.5
Trichlorofluoromethane	75-69-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Vinyl Chloride	75-01-4	TRG	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l															0.06	NJ					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l											0.17	NJ			0.17	NJ					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l							0.1	NJ													
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l									0.57	JN											
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l																					
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l											0.05	NJ									
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l			0.09	NJ																	
Total Alkane Tics	E966796	TIC	ug/l	0				0				0				0								
Unknown-01	UNKNOWN-01	TIC	ug/l			0.68	BJ			0.41	BJ			0.08	J			0.08	J					0.1
Unknown-02	UNKNOWN-02	TIC	ug/l			0.12	J			0.06	BJ			0.1	J			0.12	J					0.1
Unknown-03	UNKNOWN-03	TIC	ug/l			0.08	J			0.09	BJ			0.15	J			0.13	J					0.13
Unknown-04	UNKNOWN-04	TIC	ug/l			0.17	J			0.14	J			0.08	J			0.12	J					0.08
Unknown-05	UNKNOWN-05	TIC	ug/l							0.22	J			0.13	J									0.07
Unknown-06	UNKNOWN-06	TIC	ug/l							0.05	J			0.1	NJ									0.06
Unknown-07	UNKNOWN-07	TIC	ug/l							0.07	J			0.05	J									
Unknown-08	UNKNOWN-08	TIC	ug/l							0.08	J			0.11	J									
Unknown-09	UNKNOWN-09	TIC	ug/l																					
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	2	U	2.1	U	2	U			2	U	2.2	U	2	U	2.1	U	2.4	U	2.1	U	2.2
1-methylnaphthalene	90-12-0	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2,4-Dichlorophenol	120-83-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2,4-Dimethylphenol	105-67-9	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2,4-Dinitrophenol	51-28-5	TRG	ug/l	10	U	10	U	10	UJ			10	U	11	U	10	U	11	U	12	U	10	U	11
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2-Chloronaphthalene	91-58-7	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2-Chlorophenol	95-57-8	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2-Methylnaphthalene	91-57-6	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11
2-Nitroaniline	88-74-4	TRG	ug/l	5	U	5.2	U	5	UJ			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
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N Result is a tentatively identified compound.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
				Sample:	FB-20221116-GW		FB-20221117		FB-20221117-GW		FB-20221118		FB-20221118-GW		FB-20221121		FB-20221121-GW		FB-20221122		FB-20221129		FB-20221206		FB-202		
				Sample Date:	11/16/2022		11/17/2022		11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/		
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
2-Nitrophenol	88-75-5	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
3-Nitroaniline	99-09-2	TRG	ug/l	10	U	10	U	10	UJ			10	U	11	U	10	U	11	U	12	U	10	U	11		
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	10	UJ	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	1.8	J	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	3.5	J	5.5		
4-Chloroaniline	106-47-8	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
4-Nitroaniline	100-01-6	TRG	ug/l	10	U	10	U	10	UJ			10	U	11	U	10	U	11	U	12	U	10	U	11		
4-Nitrophenol	100-02-7	TRG	ug/l	10	U	10	U	10	UJ			10	U	11	U	10	U	11	U	12	U	10	U	11		
Acenaphthene	83-32-9	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Acenaphthylene	208-96-8	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Acetophenone	98-86-2	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Anthracene	120-12-7	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Atrazine	1912-24-9	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Benzaldehyde	100-52-7	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Benzo(a)anthracene	56-55-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Benzo(a)pyrene	50-32-8	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Caprolactam	105-60-2	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Carbazole	86-74-8	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Chrysene	218-01-9	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Dibenzofuran	132-64-9	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Diethyl Phthalate	84-66-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Dimethyl Phthalate	131-11-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Di-N-Octylphthalate	117-84-0	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Fluoranthene	206-44-0	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Fluorene	86-73-7	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Hexachlorobenzene	118-74-1	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Hexachlorobutadiene	87-68-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Hexachloroethane	67-72-1	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Isophorone	78-59-1	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Naphthalene	91-20-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Nitrobenzene	98-95-3	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Pentachlorophenol	87-86-5	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	UJ	11		
Phenanthrene	85-01-8	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
Phenol	108-95-2	TRG	ug/l	10	U	10	U	10	U			10	U	11	U	10	U	11	U	12	U	10	U	11		
Pyrene	129-00-0	TRG	ug/l	5	U	5.2	U	5	U			5	U	5.4	U	5	U	5.3	U	6.1	U	5.2	U	5.5		
1-Hexadecene	629-73-2	TIC	ug/l																							
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l					3.6	JN							2.6	JN									
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																							
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l											2.5	BNJ			2.5	BNJ							
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																							
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l	3.9	JN																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l			3.4	NJ															6	NJ			
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																							
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																							

Notes:

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VALUE exceeds relevant EPA RSL.

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field
				Sample:	FB-20221116-GW		FB-20221117		FB-20221117-GW		FB-20221118		FB-20221118-GW		FB-20221121		FB-20221121-GW		FB-20221122		FB-20221129		FB-20221206		FB-202		
				Sample Date:	11/16/2022		11/17/2022		11/17/2022		11/18/2022		11/18/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/		
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Benzene	71-43-2	TIC	ug/l																							
Cyclohexanone	108-94-1	TIC	ug/l																							
Cyclohexene	110-83-8	TIC	ug/l																							
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																							
Ethylidenecyclobutane	1528-21-8	TIC	ug/l															200	BNJ							
Hexadecanoic Acid	57-10-3	TIC	ug/l																							
Isovanillin	621-59-0	TIC	ug/l																							
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																							
Nonanoic Acid	112-05-0	TIC	ug/l																							
Octadecanoic Acid	57-11-4	TIC	ug/l																							
Octanoic Acid	124-07-2	TIC	ug/l																							
Oleamide	301-02-0	TIC	ug/l																							
Pentaethylene Glycol	4792-15-8	TIC	ug/l																							
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																							
Tetraethylene Glycol	112-60-7	TIC	ug/l																							
Total Alkane Tics	E966796	TIC	ug/l	0				0				0				0										
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																							
Unknown-01	UNKNOWN-01	TIC	ug/l													5	J									
Unknown-02	UNKNOWN-02	TIC	ug/l																							
Parameters																										
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l					*1*	*UJ*																	
Hardness (As Caco3)	HARD	TRG	mg/l					*3.3*	*U*																	
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l					*0.05*	*U*																	
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l					*0.05*	*U*																	
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l																					4.5		
Sulfate (As So4)	14808-79-8	TRG	mg/l					*1*	*U*																	
Total Petroleum Hydrocarbons	TPH	TRG	mg/l																					5.94		

Notes:

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J Estimated value. +/- indicates direction of bias.

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Analyte	CAS	Result Type	Unit	Location: Blank Sample: 21207 Sample Date: 2022		Field Blank FB-20221212 12/12/2022		Field Blank FB-20221213 12/13/2022		Field Blank FB-20221215 12/15/2022		Field Blank FB-20221219 12/19/2022		Field Blank FB-20221221 12/21/2022		Field Blank FB-20230103 1/3/2023		Field Blank FB-20230104 1/4/2023		Field Blank FB-20230106 1/6/2023		Field Blank FB-20230110 1/10/2023		Field Blank FB-20230111 1/11/2023	
				Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																									
Aluminum	7429-90-5	TRG	ug/l																						
Antimony	7440-36-0	TRG	ug/l																						
Arsenic	7440-38-2	TRG	ug/l																						
Barium	7440-39-3	TRG	ug/l																						
Beryllium	7440-41-7	TRG	ug/l																						
Cadmium	7440-43-9	TRG	ug/l																						
Calcium	7440-70-2	TRG	ug/l																						
Chromium, Total	7440-47-3	TRG	ug/l																						
Cobalt	7440-48-4	TRG	ug/l																						
Copper	7440-50-8	TRG	ug/l																						
Iron	7439-89-6	TRG	ug/l																						
Lead	7439-92-1	TRG	ug/l																						
Magnesium	7439-95-4	TRG	ug/l																						
Manganese	7439-96-5	TRG	ug/l																						
Mercury	7439-97-6	TRG	ug/l																						
Nickel	7440-02-0	TRG	ug/l																						
Potassium	7440-09-7	TRG	ug/l																						
Selenium	7782-49-2	TRG	ug/l																						
Silver	7440-22-4	TRG	ug/l																						
Sodium	7440-23-5	TRG	ug/l																						
Thallium	7440-28-0	TRG	ug/l																						
Vanadium	7440-62-2	TRG	ug/l																						
Zinc	7440-66-6	TRG	ug/l																						
VOCs																									
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	TRG	ug/l	U	5	U	5	U	5	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	TRG	ug/l	U	5	U	5	U	5	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	TRG	ug/l	U	7.5		5	U	8.1		10		10	U	5	U	5	U	8.5		8.6		5	U	5	U
Benzene	71-43-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	UJ	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Disulfide	75-15-0	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	TRG	ug/l	U	0.47	J	0.5	U	0.5	U	0.51		1	U	0.44	J	0.64		0.5		0.46	J	0.5	U	0.5	U
Chloromethane	74-87-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 21207	FB-20221212		FB-20221213		FB-20221215		FB-20221219		FB-20221221		FB-20230103		FB-20230104		FB-20230106		FB-20230110		FB-20230111	
				Sample Date: 2022	12/12/2022		12/13/2022		12/15/2022		12/19/2022		12/21/2022		1/3/2023		1/4/2023		1/6/2023		1/10/2023		1/11/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U	0.06	J	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	TRG	ug/l	J	0.11	J	0.17	J	0.19	J	0.5	U	0.26	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	J	0.5	U	0.09	J	0.1	J	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	J	0.5	U	0.5	U	0.17	J	0.5	U	0.24	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	TRG	ug/l		0.49	J	0.72		0.85		0.64		1.2		0.43	J	0.72		0.47	J	0.32	J	0.5	U
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.16	J	0.46	J	0.5	U	0.18	J	0.14	J	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																					
Acenaphthene	83-32-9	TIC	ug/l																					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																					
Benzo[c]thiophene	000270-82-6	TIC	ug/l																					
Decyl Aldehyde	112-31-2	TIC	ug/l																					
Indane	000496-11-7	TIC	ug/l																					
Naphthalene	91-20-3	TIC	ug/l																					
Nonanal	000124-19-6	TIC	ug/l																					
Nonanol	124-19-6	TIC	ug/l																					
Octanal	124-13-0	TIC	ug/l																					
Pentafluorobenzene	363-72-4	TIC	ug/l																					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																					
Sulfur dioxide	007446-09-5	TIC	ug/l																					
Sulfur dioxide	7446.09-5	TIC	ug/l																					
Tetrahydrofuran	109-99-9	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l		0.06	J	0.13	J					0.16	DJ										
Unknown-01	UNKNOWN-01	TIC	ug/l	J	0.92	BJ	0.06	J	0.19	BJ			0.98	BDJ										
Unknown-02	UNKNOWN-02	TIC	ug/l	J	0.08	J	0.08	J	0.05	J			0.14	DJ										
Unknown-03	UNKNOWN-03	TIC	ug/l	J	0.15	J	0.06	J	0.1	J			0.22	DJ										
Unknown-04	UNKNOWN-04	TIC	ug/l	J	0.08	NJ	0.07	J	0.07	J			0.26	DJ										
Unknown-05	UNKNOWN-05	TIC	ug/l	J	0.06	J	0.07	J	0.17	J														
Unknown-06	UNKNOWN-06	TIC	ug/l	J	0.06	J			0.08	J														
Unknown-07	UNKNOWN-07	TIC	ug/l		0.07	J			0.06	J														
Unknown-08	UNKNOWN-08	TIC	ug/l		0.08	J			0.1	J														
Unknown-09	UNKNOWN-09	TIC	ug/l						0.05	J														
SVOCs																								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l	U	1.9	U	2	U	2.1	U	2.1	U	2.1	U	2	U	2	U	2.1	U	2	U	2	U
1-methylnaphthalene	90-12-0	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	6.9		5	U	5.1	U
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2,4-Dichlorophenol	120-83-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2,4-Dimethylphenol	105-67-9	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2,4-Dinitrophenol	51-28-5	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
2,4-Dinitrotoluene	121-14-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2,6-Dinitrotoluene	606-20-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2-Chloronaphthalene	91-58-7	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2-Chlorophenol	95-57-8	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
2-Methylnaphthalene	91-57-6	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	3.9	J	5	U	5.1	U
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
2-Nitroaniline	88-74-4	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U

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				Location: Blank	Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank		Field Blank	
				Sample: 21207	FB-20221212		FB-20221213		FB-20221215		FB-20221219		FB-20221221		FB-20230103		FB-20230104		FB-20230106		FB-20230110		FB-20230111	
				Sample Date: 2022	12/12/2022		12/13/2022		12/15/2022		12/19/2022		12/21/2022		1/3/2023		1/4/2023		1/6/2023		1/10/2023		1/11/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
3-Nitroaniline	99-09-2	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
4-Chloroaniline	106-47-8	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
4-Nitroaniline	100-01-6	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
4-Nitrophenol	100-02-7	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Acenaphthene	83-32-9	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	12		5	U	5.1	U
Acenaphthylene	208-96-8	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Acetophenone	98-86-2	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Anthracene	120-12-7	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Atrazine	1912-24-9	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Benzaldehyde	100-52-7	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Benzo(a)anthracene	56-55-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Benzo(a)pyrene	50-32-8	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Benzo(b)fluoranthene	205-99-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Benzo(k)fluoranthene	207-08-9	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	4.3	J	5	U	5.1	U
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Caprolactam	105-60-2	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Carbazole	86-74-8	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Chrysene	218-01-9	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Dibenzofuran	132-64-9	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	12		5	U	5.1	U
Diethyl Phthalate	84-66-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Dimethyl Phthalate	131-11-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Di-N-Octylphthalate	117-84-0	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Fluoranthene	206-44-0	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.1	J	5	U	5.1	U
Fluorene	86-73-7	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	9.6		5	U	5.1	U
Hexachlorobenzene	118-74-1	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Hexachlorobutadiene	87-68-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Hexachloroethane	67-72-1	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Isophorone	78-59-1	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Naphthalene	91-20-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	20		5	U	5.1	U
Nitrobenzene	98-95-3	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
Pentachlorophenol	87-86-5	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Phenanthrene	85-01-8	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	18		5	U	5.1	U
Phenol	108-95-2	TRG	ug/l	U	9.6	U	10	U	10	U	11	U	11	U	10	U	9.8	U	11	U	9.9	U	10	U
Pyrene	129-00-0	TRG	ug/l	U	4.8	U	5	U	5.2	U	5.3	U	5.3	U	5	U	4.9	U	5.3	U	5	U	5.1	U
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																2.3	NJ				
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l				3.5	BNJ	3	BNJ			2.9	BNJ							2	NJ	2.3	NJ
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l				2.4	NJ			2.7	NJ					2.4	NJ						
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

Notes:

VALUE is non-detect.

VALUE exceeds relevant EPA RSL.

VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.

D Result was run under a dilution.

J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.

R Result was rejected by the validator.

U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

					Location: Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank
					Sample: 21207	FB-20221212	FB-20221213	FB-20221215	FB-20221219	FB-20221221	FB-20230103	FB-20230104	FB-20230106	FB-20230110	FB-20230111
					Sample Date: 2022	12/12/2022	12/13/2022	12/15/2022	12/19/2022	12/21/2022	1/3/2023	1/4/2023	1/6/2023	1/10/2023	1/11/2023
Analyte	CAS	Result Type	Unit	Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual
Benzene	71-43-2	TIC	ug/l												
Cyclohexanone	108-94-1	TIC	ug/l												
Cyclohexene	110-83-8	TIC	ug/l												
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l												
Ethylidenecyclobutane	1528-21-8	TIC	ug/l												
Hexadecanoic Acid	57-10-3	TIC	ug/l												
Isovanillin	621-59-0	TIC	ug/l												
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l												
Nonanoic Acid	112-05-0	TIC	ug/l												
Octadecanoic Acid	57-11-4	TIC	ug/l												
Octanoic Acid	124-07-2	TIC	ug/l												
Oleamide	301-02-0	TIC	ug/l												
Pentaethylene Glycol	4792-15-8	TIC	ug/l												
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l												
Tetraethylene Glycol	112-60-7	TIC	ug/l												
Total Alkane Tics	E966796	TIC	ug/l												
Triphenylphosphine Oxide	791-28-6	TIC	ug/l												
Unknown-01	UNKNOWN-01	TIC	ug/l		2.1 J	2.7 J		3 J		2.1 J	2.7 J	3.7 J	2.2 J	2.4 J	
Unknown-02	UNKNOWN-02	TIC	ug/l			3.1 J						2.5 J			
Parameters															
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l												
Hardness (As Caco3)	HARD	TRG	mg/l												
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l												
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l												
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l		*4 U*		*4 U*								
Sulfate (As So4)	14808-79-8	TRG	mg/l												
Total Petroleum Hydrocarbons	TPH	TRG	mg/l		*4 U*		*4 U*								

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Field Blank		Field Blank		Field Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip B
Sample:				FB-20230112		FB-20230112-GW		FB-20230113		TB-20220912		TB-20220914		TB-20220919		TB-20220921		TB-20220922		TB-20220926		TB-20220927		TB-202				
Sample Date:				1/12/2023		1/12/2023		1/13/2023		9/12/2022		9/14/2022		9/19/2022		9/21/2022		9/22/2022		10/4/2022		9/27/2022		9/29/				
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Metals																										
Aluminum	7429-90-5	TRG	ug/l																							
Antimony	7440-36-0	TRG	ug/l																							
Arsenic	7440-38-2	TRG	ug/l																							
Barium	7440-39-3	TRG	ug/l																							
Beryllium	7440-41-7	TRG	ug/l																							
Cadmium	7440-43-9	TRG	ug/l																							
Calcium	7440-70-2	TRG	ug/l																							
Chromium, Total	7440-47-3	TRG	ug/l																							
Cobalt	7440-48-4	TRG	ug/l																							
Copper	7440-50-8	TRG	ug/l																							
Iron	7439-89-6	TRG	ug/l																							
Lead	7439-92-1	TRG	ug/l																							
Magnesium	7439-95-4	TRG	ug/l																							
Manganese	7439-96-5	TRG	ug/l																							
Mercury	7439-97-6	TRG	ug/l																							
Nickel	7440-02-0	TRG	ug/l																							
Potassium	7440-09-7	TRG	ug/l																							
Selenium	7782-49-2	TRG	ug/l																							
Silver	7440-22-4	TRG	ug/l																							
Sodium	7440-23-5	TRG	ug/l																							
Thallium	7440-28-0	TRG	ug/l																							
Vanadium	7440-62-2	TRG	ug/l																							
Zinc	7440-66-6	TRG	ug/l																							
VOCs																										
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
2-Butanone	78-93-3	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
2-Hexanone	591-78-6	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Acetone	67-64-1	TRG	ug/l	*5*	*U*	4.3	J	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*
Benzene	71-43-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromochloromethane	74-97-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromodichloromethane	75-27-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromoform	75-25-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Bromomethane	74-83-9	TRG	ug/l	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Disulfide	75-15-0	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chlorobenzene	108-90-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroethane	75-00-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloroform	67-66-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Chloromethane	74-87-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Cyclohexane	110-82-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Dibromochloromethane	124-48-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.
N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

| | | Location: | | Field Blank | | Field Blank | | Field Blank | | Trip Blank | | Trip Blank | | Trip

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

| | | Location: | | Field Blank | | Field Blank | | Field Blank | | Trip Blank | | Trip Blank | | Trip

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

| | | | | Location: | Field Blank | | Field Blank | | Field Blank | | Trip Blank | | Trip Blank | | Trip

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
				Sample: 220929	TB-20221003		TB-20221005		TB-20221010		TB-20221010A		TB-20221012		TB-20221018		TB-20221020		TB-20221021		TB-20221024		TB-20221026	
				Sample Date: 2022	10/3/2022		10/5/2022		10/10/2022		10/10/2022		10/12/2022		10/18/2022		10/20/2022		10/21/2022		10/24/2022		10/26/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																								
Aluminum	7429-90-5	TRG	ug/l																					
Antimony	7440-36-0	TRG	ug/l																					
Arsenic	7440-38-2	TRG	ug/l																					
Barium	7440-39-3	TRG	ug/l																					
Beryllium	7440-41-7	TRG	ug/l																					
Cadmium	7440-43-9	TRG	ug/l																					
Calcium	7440-70-2	TRG	ug/l																					
Chromium, Total	7440-47-3	TRG	ug/l																					
Cobalt	7440-48-4	TRG	ug/l																					
Copper	7440-50-8	TRG	ug/l																					
Iron	7439-89-6	TRG	ug/l																					
Lead	7439-92-1	TRG	ug/l																					
Magnesium	7439-95-4	TRG	ug/l																					
Manganese	7439-96-5	TRG	ug/l																					
Mercury	7439-97-6	TRG	ug/l																					
Nickel	7440-02-0	TRG	ug/l																					
Potassium	7440-09-7	TRG	ug/l																					
Selenium	7782-49-2	TRG	ug/l																					
Silver	7440-22-4	TRG	ug/l																					
Sodium	7440-23-5	TRG	ug/l																					
Thallium	7440-28-0	TRG	ug/l																					
Vanadium	7440-62-2	TRG	ug/l																					
Zinc	7440-66-6	TRG	ug/l																					
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Disulfide	75-15-0	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
				Sample: 220929	TB-20221003		TB-20221005		TB-20221010		TB-20221010A		TB-20221012		TB-20221018		TB-20221020		TB-20221021		TB-20221024		TB-20221026			
				Sample Date: 2022	10/3/2022		10/5/2022		10/10/2022		10/10/2022		10/12/2022		10/18/2022		10/20/2022		10/21/2022		10/24/2022		10/26/2022			
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
M, P Xylenes	179601-23-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methylene Chloride	75-09-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Toluene	108-88-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.06	J		
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																							
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																							
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																							
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																							
Acenaphthene	83-32-9	TIC	ug/l																							
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																							
Benzo[c]thiophene	000270-82-6	TIC	ug/l																							
Decyl Aldehyde	112-31-2	TIC	ug/l																0.17	NJ						
Indane	000496-11-7	TIC	ug/l																							
Naphthalene	91-20-3	TIC	ug/l								0.08	NJ														
Nonanal	000124-19-6	TIC	ug/l																							
Nonanol	124-19-6	TIC	ug/l	NJ							0.63	NJ			0.23	NJ	0.45	NJ	1.2	NJ	0.8	NJ				
Octanal	124-13-0	TIC	ug/l										0.12	NJ					0.19	NJ						
Pentafluorobenzene	363-72-4	TIC	ug/l																							
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																							
Sulfur dioxide	007446-09-5	TIC	ug/l																							
Sulfur dioxide	7446.09-5	TIC	ug/l																							
Tetrahydrofuran	109-99-9	TIC	ug/l		0.11	NJ	0.12	NJ			0.15	NJ	0.12	NJ	0.1	NJ	0.1	NJ	0.12	NJ			0.11	NJ		
Total Alkane Tics	E966796	TIC	ug/l																							
Unknown-01	UNKNOWN-01	TIC	ug/l	J	0.12	J	0.08	BJ	0.14	J	0.08	J	0.35	J	0.08	J	0.16	BJ	0.26	BJ	0.4	J	0.07	J		
Unknown-02	UNKNOWN-02	TIC	ug/l		0.06	J	0.05	J	0.12	J	0.06	J	0.06	J			0.07	J	0.06	BJ	0.11	J	0.06	J		
Unknown-03	UNKNOWN-03	TIC	ug/l		0.14	J	0.1	J	0.07	J	0.42	J	0.08	J			0.08	J	0.14	J	0.08	J	0.12	J		
Unknown-04	UNKNOWN-04	TIC	ug/l				0.12	J	0.12	J	0.07	J	0.27	J					0.05	J	0.26	J	0.55	J		
Unknown-05	UNKNOWN-05	TIC	ug/l				0.16	J	0.1	J	0.17	J	0.14	J					0.27	J	0.08	J				
Unknown-06	UNKNOWN-06	TIC	ug/l				0.15	J			0.06	J	0.74	J							0.2	J				
Unknown-07	UNKNOWN-07	TIC	ug/l				0.86	J					0.09	J							0.06	J				
Unknown-08	UNKNOWN-08	TIC	ug/l				0.1	J													0.08	J				
Unknown-09	UNKNOWN-09	TIC	ug/l																		0.07	J				
SVOCs																										
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l																							
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l																							
1-methylnaphthalene	90-12-0	TRG	ug/l																							
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l																							
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l																							
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l																							
2,4-Dichlorophenol	120-83-2	TRG	ug/l																							
2,4-Dimethylphenol	105-67-9	TRG	ug/l																							
2,4-Dinitrophenol	51-28-5	TRG	ug/l																							
2,4-Dinitrotoluene	121-14-2	TRG	ug/l																							
2,6-Dinitrotoluene	606-20-2	TRG	ug/l																							
2-Chloronaphthalene	91-58-7	TRG	ug/l																							
2-Chlorophenol	95-57-8	TRG	ug/l																							
2-Methylnaphthalene	91-57-6	TRG	ug/l																							
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l																							
2-Nitroaniline	88-74-4	TRG	ug/l																							

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
				Sample: 20929	TB-20221003		TB-20221005		TB-20221010		TB-20221010A		TB-20221012		TB-20221018		TB-20221020		TB-20221021		TB-20221024		TB-20221026	
				Sample Date: 2022	10/3/2022		10/5/2022		10/10/2022		10/10/2022		10/12/2022		10/18/2022		10/20/2022		10/21/2022		10/24/2022		10/26/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l																					
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l																					
3-Nitroaniline	99-09-2	TRG	ug/l																					
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l																					
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l																					
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l																					
4-Chloroaniline	106-47-8	TRG	ug/l																					
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l																					
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l																					
4-Nitroaniline	100-01-6	TRG	ug/l																					
4-Nitrophenol	100-02-7	TRG	ug/l																					
Acenaphthene	83-32-9	TRG	ug/l																					
Acenaphthylene	208-96-8	TRG	ug/l																					
Acetophenone	98-86-2	TRG	ug/l																					
Anthracene	120-12-7	TRG	ug/l																					
Atrazine	1912-24-9	TRG	ug/l																					
Benzaldehyde	100-52-7	TRG	ug/l																					
Benzo(a)anthracene	56-55-3	TRG	ug/l																					
Benzo(a)pyrene	50-32-8	TRG	ug/l																					
Benzo(b)fluoranthene	205-99-2	TRG	ug/l																					
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l																					
Benzo(k)fluoranthene	207-08-9	TRG	ug/l																					
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l																					
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l																					
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l																					
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l																					
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l																					
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l																					
Caprolactam	105-60-2	TRG	ug/l																					
Carbazole	86-74-8	TRG	ug/l																					
Chrysene	218-01-9	TRG	ug/l																					
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l																					
Dibenzofuran	132-64-9	TRG	ug/l																					
Diethyl Phthalate	84-66-2	TRG	ug/l																					
Dimethyl Phthalate	131-11-3	TRG	ug/l																					
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l																					
Di-N-Octylphthalate	117-84-0	TRG	ug/l																					
Fluoranthene	206-44-0	TRG	ug/l																					
Fluorene	86-73-7	TRG	ug/l																					
Hexachlorobenzene	118-74-1	TRG	ug/l																					
Hexachlorobutadiene	87-68-3	TRG	ug/l																					
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l																					
Hexachloroethane	67-72-1	TRG	ug/l																					
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l																					
Isophorone	78-59-1	TRG	ug/l																					
Naphthalene	91-20-3	TRG	ug/l																					
Nitrobenzene	98-95-3	TRG	ug/l																					
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l																					
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l																					
Pentachlorophenol	87-86-5	TRG	ug/l																					
Phenanthrene	85-01-8	TRG	ug/l																					
Phenol	108-95-2	TRG	ug/l																					
Pyrene	129-00-0	TRG	ug/l																					
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l																					
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l																					
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
				Sample: 20929	TB-20221003	TB-20221005	TB-20221010	TB-20221010A	TB-20221012	TB-20221018	TB-20221020	TB-20221021	TB-20221024	TB-20221026
				Sample Date: 2022	10/3/2022	10/5/2022	10/10/2022	10/10/2022	10/12/2022	10/18/2022	10/20/2022	10/21/2022	10/24/2022	10/26/2022
Analyte	CAS	Result Type	Unit	Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual	Result Qual
Benzene	71-43-2	TIC	ug/l											
Cyclohexanone	108-94-1	TIC	ug/l											
Cyclohexene	110-83-8	TIC	ug/l											
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l											
Ethylidenecyclobutane	1528-21-8	TIC	ug/l											
Hexadecanoic Acid	57-10-3	TIC	ug/l											
Isovanillin	621-59-0	TIC	ug/l											
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l											
Nonanoic Acid	112-05-0	TIC	ug/l											
Octadecanoic Acid	57-11-4	TIC	ug/l											
Octanoic Acid	124-07-2	TIC	ug/l											
Oleamide	301-02-0	TIC	ug/l											
Pentaethylene Glycol	4792-15-8	TIC	ug/l											
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l											
Tetraethylene Glycol	112-60-7	TIC	ug/l											
Total Alkane Tics	E966796	TIC	ug/l											
Triphenylphosphine Oxide	791-28-6	TIC	ug/l											
Unknown-01	UNKNOWN-01	TIC	ug/l											
Unknown-02	UNKNOWN-02	TIC	ug/l											
Parameters														
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l											
Hardness (As Caco3)	HARD	TRG	mg/l											
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l											
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l											
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l											
Sulfate (As So4)	14808-79-8	TRG	mg/l											
Total Petroleum Hydrocarbons	TPH	TRG	mg/l											

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip I
Sample:				TB-20221028		TB-20221031		TB-20221101		TB-20221103		TB-20221104		TB-20221107		TB-20221109		TB-20221114		TB-20221114-GW		TB-20221115-GW		TB-2022				
Sample Date:				10/28/2022		10/31/2022		11/1/2022		11/3/2022		11/4/2022		11/7/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/16				
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Metals																												
Aluminum	7429-90-5	TRG	ug/l																									
Antimony	7440-36-0	TRG	ug/l																									
Arsenic	7440-38-2	TRG	ug/l																									
Barium	7440-39-3	TRG	ug/l																									
Beryllium	7440-41-7	TRG	ug/l																									
Cadmium	7440-43-9	TRG	ug/l																									
Calcium	7440-70-2	TRG	ug/l																									
Chromium, Total	7440-47-3	TRG	ug/l																									
Cobalt	7440-48-4	TRG	ug/l																									
Copper	7440-50-8	TRG	ug/l																									
Iron	7439-89-6	TRG	ug/l																									
Lead	7439-92-1	TRG	ug/l																									
Magnesium	7439-95-4	TRG	ug/l																									
Manganese	7439-96-5	TRG	ug/l																									
Mercury	7439-97-6	TRG	ug/l																									
Nickel	7440-02-0	TRG	ug/l																									
Potassium	7440-09-7	TRG	ug/l																									
Selenium	7782-49-2	TRG	ug/l																									
Silver	7440-22-4	TRG	ug/l																									
Sodium	7440-23-5	TRG	ug/l																									
Thallium	7440-28-0	TRG	ug/l																									
Vanadium	7440-62-2	TRG	ug/l																									
Zinc	7440-66-6	TRG	ug/l																									
VOCs																												
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,1-Dichloroethane	75-34-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,1-Dichloroethene	75-35-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*				
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2-Dibromoethane	106-93-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2-Dichloroethane	107-06-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,2-Dichloropropane	78-87-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
2-Butanone	78-93-3	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*		
2-Hexanone	591-78-6	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*		
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*		
Acetone	67-64-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*5*		
Benzene	71-43-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Bromochloromethane	74-97-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Bromodichloromethane	75-27-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Bromoform	75-25-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Bromomethane	74-83-9	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Carbon Disulfide	75-15-0	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Carbon Tetrachloride	56-23-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Chlorobenzene	108-90-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Chloroethane	75-00-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Chloroform	67-66-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Chloromethane	74-87-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*				
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Cyclohexane	110-82-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		
Dibromochloromethane	124-48-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*		

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

		Location:	Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip B
		Sample:	TB-20221028		TB-20221031		TB-20221101		TB-20221103		TB-20221104		TB-20221107		TB-20221109		TB-20221114		TB-20221114-GW		TB-20221115-GW		TB-20221116-GW		TB-20221117-GW		TB-2022	
		Sample Date:	10/28/2022		10/31/2022		11/1/2022		11/3/2022		11/4/2022		11/7/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/16/2022		11/17/2022		11/16	
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Dichlorodifluoromethane	75-71-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Ethylbenzene	100-41-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Isopropylbenzene	98-82-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
M, P Xylenes	179601-23-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methyl Acetate	79-20-9	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methylcyclohexane	108-87-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Methylene Chloride	75-09-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Styrene	100-42-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Toluene	108-88-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*UJ*	*0.5*	*U*	*0.5*	*U*	*0.5*
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Trichloroethene (TCE)	79-01-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Trichlorofluoromethane	75-69-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
Vinyl Chloride	75-01-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																								
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																								
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																								
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																								
Acenaphthene	83-32-9	TIC	ug/l																								
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																								
Benzo[c]thiophene	000270-82-6	TIC	ug/l																								
Decyl Aldehyde	112-31-2	TIC	ug/l			0.21	NJ																				
Indane	000496-11-7	TIC	ug/l																								
Naphthalene	91-20-3	TIC	ug/l																								
Nonanal	000124-19-6	TIC	ug/l																			0.64	JN				
Nonanol	124-19-6	TIC	ug/l	0.65	NJ	1.1	NJ	0.51	NJ	0.57	NJ			0.62	NJ	0.11	NJ	0.69	NJ								
Octanal	124-13-0	TIC	ug/l			0.22	NJ					0.1	NJ														
Pentafluorobenzene	363-72-4	TIC	ug/l																								
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																								
Sulfur dioxide	007446-09-5	TIC	ug/l																	0.75	JN	0.56	JN	2.7			
Sulfur dioxide	7446.09-5	TIC	ug/l																								
Tetrahydrofuran	109-99-9	TIC	ug/l	0.12	NJ			0.12	NJ	0.12	NJ	0.11	NJ	0.1	NJ	0.1	NJ										
Total Alkane Tics	E966796	TIC	ug/l																	0		0		0			
Unknown-01	UNKNOWN-01	TIC	ug/l	0.06	J	0.06	J	0.07	J	0.06	J	0.07	J	0.32	BJ	0.05	BJ	0.13	J								
Unknown-02	UNKNOWN-02	TIC	ug/l	0.06	J	0.11	J	0.07	J	0.05	J	0.16	J	0.09	J	0.06	J	0.07	J								
Unknown-03	UNKNOWN-03	TIC	ug/l	0.09	J	0.09	J	0.07	J	0.08	J	0.76	J	0.09	J	0.06	J	0.07	J								
Unknown-04	UNKNOWN-04	TIC	ug/l	0.08	J	0.09	J	0.12	J	0.07	J	0.08	J	0.56	J			0.11	J								
Unknown-05	UNKNOWN-05	TIC	ug/l	0.08	J	0.2	J			0.07	J			0.06	J			0.06	J								
Unknown-06	UNKNOWN-06	TIC	ug/l	0.18	J					0.12	J			0.11	J												
Unknown-07	UNKNOWN-07	TIC	ug/l																								
Unknown-08	UNKNOWN-08	TIC	ug/l																								
Unknown-09	UNKNOWN-09	TIC	ug/l																								
SVOCs																											
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l																								
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l																								
1-methylnaphthalene	90-12-0	TRG	ug/l																								
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l																								
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l																								
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l																								
2,4-Dichlorophenol	120-83-2	TRG	ug/l																								
2,4-Dimethylphenol	105-67-9	TRG	ug/l																								
2,4-Dinitrophenol	51-28-5	TRG	ug/l																								
2,4-Dinitrotoluene	121-14-2	TRG	ug/l																								
2,6-Dinitrotoluene	606-20-2	TRG	ug/l																								
2-Chloronaphthalene	91-58-7	TRG	ug/l																								
2-Chlorophenol	95-57-8	TRG	ug/l																								
2-Methylnaphthalene	91-57-6	TRG	ug/l																								
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l																								
2-Nitroaniline	88-74-4	TRG	ug/l																								

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.
N Result is a tentatively identified compound.
R Result was rejected by the validator.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip B
				Sample:	TB-20221028		TB-20221031		TB-20221101		TB-20221103		TB-20221104		TB-20221107		TB-20221109		TB-20221114		TB-20221114-GW		TB-20221115-GW		TB-2022			
				Sample Date:	10/28/2022		10/31/2022		11/1/2022		11/3/2022		11/4/2022		11/7/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/16			
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
2-Nitrophenol	88-75-5	TRG	ug/l																								
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l																								
3-Nitroaniline	99-09-2	TRG	ug/l																								
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l																								
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l																								
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l																								
4-Chloroaniline	106-47-8	TRG	ug/l																								
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l																								
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l																								
4-Nitroaniline	100-01-6	TRG	ug/l																								
4-Nitrophenol	100-02-7	TRG	ug/l																								
Acenaphthene	83-32-9	TRG	ug/l																								
Acenaphthylene	208-96-8	TRG	ug/l																								
Acetophenone	98-86-2	TRG	ug/l																								
Anthracene	120-12-7	TRG	ug/l																								
Atrazine	1912-24-9	TRG	ug/l																								
Benzaldehyde	100-52-7	TRG	ug/l																								
Benzo(a)anthracene	56-55-3	TRG	ug/l																								
Benzo(a)pyrene	50-32-8	TRG	ug/l																								
Benzo(b)fluoranthene	205-99-2	TRG	ug/l																								
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l																								
Benzo(k)fluoranthene	207-08-9	TRG	ug/l																								
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l																								
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l																								
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l																								
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l																								
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l																								
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l																								
Caprolactam	105-60-2	TRG	ug/l																								
Carbazole	86-74-8	TRG	ug/l																								
Chrysene	218-01-9	TRG	ug/l																								
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l																								
Dibenzofuran	132-64-9	TRG	ug/l																								
Diethyl Phthalate	84-66-2	TRG	ug/l																								
Dimethyl Phthalate	131-11-3	TRG	ug/l																								
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l																								
Di-N-Octylphthalate	117-84-0	TRG	ug/l																								
Fluoranthene	206-44-0	TRG	ug/l																								
Fluorene	86-73-7	TRG	ug/l																								
Hexachlorobenzene	118-74-1	TRG	ug/l																								
Hexachlorobutadiene	87-68-3	TRG	ug/l																								
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l																								
Hexachloroethane	67-72-1	TRG	ug/l																								
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l																								
Isophorone	78-59-1	TRG	ug/l																								
Naphthalene	91-20-3	TRG	ug/l																								
Nitrobenzene	98-95-3	TRG	ug/l																								
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l																								
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l																								
Pentachlorophenol	87-86-5	TRG	ug/l																								
Phenanthrene	85-01-8	TRG	ug/l																								
Phenol	108-95-2	TRG	ug/l																								
Pyrene	129-00-0	TRG	ug/l																								
1-Hexadecene	629-73-2	TIC	ug/l																								
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																								
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																								
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l																								
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																								
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																								
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l																								
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																								
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																								

Notes:

VALUE is non-detect.
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D Result was run under a dilution.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip I
				Sample:	TB-20221028		TB-20221031		TB-20221101		TB-20221103		TB-20221104		TB-20221107		TB-20221109		TB-20221114		TB-20221114-GW		TB-20221115-GW		TB-2022			
				Sample Date:	10/28/2022		10/31/2022		11/1/2022		11/3/2022		11/4/2022		11/7/2022		11/9/2022		11/14/2022		11/14/2022		11/15/2022		11/16			
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzene	71-43-2	TIC	ug/l																								
Cyclohexanone	108-94-1	TIC	ug/l																								
Cyclohexene	110-83-8	TIC	ug/l																								
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																								
Ethylidenecyclobutane	1528-21-8	TIC	ug/l																								
Hexadecanoic Acid	57-10-3	TIC	ug/l																								
Isovanillin	621-59-0	TIC	ug/l																								
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																								
Nonanoic Acid	112-05-0	TIC	ug/l																								
Octadecanoic Acid	57-11-4	TIC	ug/l																								
Octanoic Acid	124-07-2	TIC	ug/l																								
Oleamide	301-02-0	TIC	ug/l																								
Pentaethylene Glycol	4792-15-8	TIC	ug/l																								
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																								
Tetraethylene Glycol	112-60-7	TIC	ug/l																								
Total Alkane Tics	E966796	TIC	ug/l																								
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																								
Unknown-01	UNKNOWN-01	TIC	ug/l																								
Unknown-02	UNKNOWN-02	TIC	ug/l																								
Parameters																											
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																								
Hardness (As Caco3)	HARD	TRG	mg/l																								
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																								
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																								
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l																								
Sulfate (As So4)	14808-79-8	TRG	mg/l																								
Total Petroleum Hydrocarbons	TPH	TRG	mg/l																								

Notes:

VALUE is non-detect.
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D Result was run under a dilution.
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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
				Sample: L116-GW	TB-20221117		TB-20221117-GW		TB-20221118-GW		TB-20221121		TB-20221121-GW		TB-20221122		TB-20221129		TB-20221206		TB-20221207		TB-20221212	
				Sample Date: /2022	11/17/2022		11/17/2022		11/18/2022		11/21/2022		11/21/2022		11/22/2022		11/29/2022		12/6/2022		12/7/2022		12/12/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Metals																								
Aluminum	7429-90-5	TRG	ug/l																					
Antimony	7440-36-0	TRG	ug/l																					
Arsenic	7440-38-2	TRG	ug/l																					
Barium	7440-39-3	TRG	ug/l																					
Beryllium	7440-41-7	TRG	ug/l																					
Cadmium	7440-43-9	TRG	ug/l																					
Calcium	7440-70-2	TRG	ug/l																					
Chromium, Total	7440-47-3	TRG	ug/l																					
Cobalt	7440-48-4	TRG	ug/l																					
Copper	7440-50-8	TRG	ug/l																					
Iron	7439-89-6	TRG	ug/l																					
Lead	7439-92-1	TRG	ug/l																					
Magnesium	7439-95-4	TRG	ug/l																					
Manganese	7439-96-5	TRG	ug/l																					
Mercury	7439-97-6	TRG	ug/l																					
Nickel	7440-02-0	TRG	ug/l																					
Potassium	7440-09-7	TRG	ug/l																					
Selenium	7782-49-2	TRG	ug/l																					
Silver	7440-22-4	TRG	ug/l																					
Sodium	7440-23-5	TRG	ug/l																					
Thallium	7440-28-0	TRG	ug/l																					
Vanadium	7440-62-2	TRG	ug/l																					
Zinc	7440-66-6	TRG	ug/l																					
VOCs																								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	78-93-3	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	591-78-6	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	67-64-1	TRG	ug/l	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	71-43-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	TRG	ug/l	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Disulfide	75-15-0	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	56-23-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	110-82-7	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

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GCL Tie treating Superfund Site
Sidney, New York

				Location:	Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
				Sample:	L116-GW	TB-20221117	TB-20221117-GW	TB-20221118-GW	TB-20221121	TB-20221121-GW	TB-20221122	TB-20221129	TB-20221206	TB-20221207	TB-20221212	
				Sample Date:	/2022	11/17/2022	11/17/2022	11/18/2022	11/21/2022	11/21/2022	11/22/2022	11/29/2022	12/6/2022	12/7/2022	12/12/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Dichlorodifluoromethane	75-71-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
M, P Xylenes	179601-23-1	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	79-20-9	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	108-87-2	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	75-09-2	TRG	ug/l	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	TRG	ug/l	U	0.07	J	0.5	U	0.5	U	0.5	U	0.5	U	0.07	J	0.5	U	0.5	U	0.5	U	0.5	U	0.41	J
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene (TCE)	79-01-6	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	TRG	ug/l	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l																							
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l												1.1	JN										
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l																							
3-Methylheptyl acetate	72218-58-7	TIC	ug/l																							
Acenaphthene	83-32-9	TIC	ug/l																							
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l																							
Benzo[c]thiophene	000270-82-6	TIC	ug/l																							
Decyl Aldehyde	112-31-2	TIC	ug/l																							
Indane	000496-11-7	TIC	ug/l																							
Naphthalene	91-20-3	TIC	ug/l																							
Nonanal	000124-19-6	TIC	ug/l				1.3	JN	1.3	JN			1.2	JN												
Nonanol	124-19-6	TIC	ug/l												0.58	NJ										
Octanal	124-13-0	TIC	ug/l																							
Pentafluorobenzene	363-72-4	TIC	ug/l																							
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l																							
Sulfur dioxide	007446-09-5	TIC	ug/l	JN																						
Sulfur dioxide	7446.09-5	TIC	ug/l																						0.98	NBJ
Tetrahydrofuran	109-99-9	TIC	ug/l		0.12	NJ					0.1	NJ			0.1	NJ										
Total Alkane Tics	E966796	TIC	ug/l				0		0		0.32	J	0													
Unknown-01	UNKNOWN-01	TIC	ug/l		0.33	BJ					0.06	J			0.08	J							0.08	BJ		
Unknown-02	UNKNOWN-02	TIC	ug/l		0.07	BJ					0.07	J			0.08	J										
Unknown-03	UNKNOWN-03	TIC	ug/l		0.09	J									0.07	J										
Unknown-04	UNKNOWN-04	TIC	ug/l		0.12	J									0.15	J										
Unknown-05	UNKNOWN-05	TIC	ug/l		0.42	J																				
Unknown-06	UNKNOWN-06	TIC	ug/l																							
Unknown-07	UNKNOWN-07	TIC	ug/l																							
Unknown-08	UNKNOWN-08	TIC	ug/l																							
Unknown-09	UNKNOWN-09	TIC	ug/l																							
SVOCs																										
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l																							
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l																							
1-methylnaphthalene	90-12-0	TRG	ug/l																							
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l																							
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l																							
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l																							
2,4-Dichlorophenol	120-83-2	TRG	ug/l																							
2,4-Dimethylphenol	105-67-9	TRG	ug/l																							
2,4-Dinitrophenol	51-28-5	TRG	ug/l																							
2,4-Dinitrotoluene	121-14-2	TRG	ug/l																							
2,6-Dinitrotoluene	606-20-2	TRG	ug/l																							
2-Chloronaphthalene	91-58-7	TRG	ug/l																							
2-Chlorophenol	95-57-8	TRG	ug/l																							
2-Methylnaphthalene	91-57-6	TRG	ug/l																							
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l																							
2-Nitroaniline	88-74-4	TRG	ug/l																							

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
				Sample:	L116-GW	TB-20221117	TB-20221117-GW	TB-20221118-GW	TB-20221121	TB-20221121-GW	TB-20221122	TB-20221129	TB-20221206	TB-20221207	TB-20221212	
				Sample Date:	/2022	11/17/2022	11/17/2022	11/18/2022	11/21/2022	11/21/2022	11/22/2022	11/29/2022	12/6/2022	12/7/2022	12/12/2022	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l																					
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l																					
3-Nitroaniline	99-09-2	TRG	ug/l																					
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l																					
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l																					
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l																					
4-Chloroaniline	106-47-8	TRG	ug/l																					
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l																					
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l																					
4-Nitroaniline	100-01-6	TRG	ug/l																					
4-Nitrophenol	100-02-7	TRG	ug/l																					
Acenaphthene	83-32-9	TRG	ug/l																					
Acenaphthylene	208-96-8	TRG	ug/l																					
Acetophenone	98-86-2	TRG	ug/l																					
Anthracene	120-12-7	TRG	ug/l																					
Atrazine	1912-24-9	TRG	ug/l																					
Benzaldehyde	100-52-7	TRG	ug/l																					
Benzo(a)anthracene	56-55-3	TRG	ug/l																					
Benzo(a)pyrene	50-32-8	TRG	ug/l																					
Benzo(b)fluoranthene	205-99-2	TRG	ug/l																					
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l																					
Benzo(k)fluoranthene	207-08-9	TRG	ug/l																					
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l																					
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l																					
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l																					
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l																					
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l																					
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l																					
Caprolactam	105-60-2	TRG	ug/l																					
Carbazole	86-74-8	TRG	ug/l																					
Chrysene	218-01-9	TRG	ug/l																					
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l																					
Dibenzofuran	132-64-9	TRG	ug/l																					
Diethyl Phthalate	84-66-2	TRG	ug/l																					
Dimethyl Phthalate	131-11-3	TRG	ug/l																					
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l																					
Di-N-Octylphthalate	117-84-0	TRG	ug/l																					
Fluoranthene	206-44-0	TRG	ug/l																					
Fluorene	86-73-7	TRG	ug/l																					
Hexachlorobenzene	118-74-1	TRG	ug/l																					
Hexachlorobutadiene	87-68-3	TRG	ug/l																					
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l																					
Hexachloroethane	67-72-1	TRG	ug/l																					
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l																					
Isophorone	78-59-1	TRG	ug/l																					
Naphthalene	91-20-3	TRG	ug/l																					
Nitrobenzene	98-95-3	TRG	ug/l																					
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l																					
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l																					
Pentachlorophenol	87-86-5	TRG	ug/l																					
Phenanthrene	85-01-8	TRG	ug/l																					
Phenol	108-95-2	TRG	ug/l																					
Pyrene	129-00-0	TRG	ug/l																					
1-Hexadecene	629-73-2	TIC	ug/l																					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l																					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l																					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l																					
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l																					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l																					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l																					
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l																					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l																					

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Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location:	Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
				Sample:	L116-GW	TB-20221117	TB-20221117-GW	TB-20221118-GW	TB-20221121	TB-20221121-GW	TB-20221122	TB-20221129	TB-20221206	TB-20221207	TB-20221212
				Sample Date:	/2022	11/17/2022	11/17/2022	11/18/2022	11/21/2022	11/21/2022	11/22/2022	11/29/2022	12/6/2022	12/7/2022	12/12/2022
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Benzene	71-43-2	TIC	ug/l																					
Cyclohexanone	108-94-1	TIC	ug/l																					
Cyclohexene	110-83-8	TIC	ug/l																					
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l																					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l																					
Hexadecanoic Acid	57-10-3	TIC	ug/l																					
Isovanillin	621-59-0	TIC	ug/l																					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l																					
Nonanoic Acid	112-05-0	TIC	ug/l																					
Octadecanoic Acid	57-11-4	TIC	ug/l																					
Octanoic Acid	124-07-2	TIC	ug/l																					
Oleamide	301-02-0	TIC	ug/l																					
Pentaethylene Glycol	4792-15-8	TIC	ug/l																					
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l																					
Tetraethylene Glycol	112-60-7	TIC	ug/l																					
Total Alkane Tics	E966796	TIC	ug/l																					
Triphenylphosphine Oxide	791-28-6	TIC	ug/l																					
Unknown-01	UNKNOWN-01	TIC	ug/l																					
Unknown-02	UNKNOWN-02	TIC	ug/l																					
Parameters																								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l																					
Hardness (As Caco3)	HARD	TRG	mg/l																					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l																					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l																					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l																					
Sulfate (As So4)	14808-79-8	TRG	mg/l																					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l																					

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

Location:				Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip I
Sample:				TB-20221212A		TB-20221215		TB-20221219		TB-20221221		TB-20230103		TB-20230104		TB-20230106		TB-20230110		TB-20230111		TB-20230112		TB-2023						
Sample Date:				12/12/2022		12/15/2022		12/19/2022		12/20/2022		1/3/2023		1/4/2023		1/6/2023		1/10/2023		1/11/2023		1/12/2023		1/12/						
Analyte	CAS	Result Type	Unit	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result
Metals																														
Aluminum	7429-90-5	TRG	ug/l																											
Antimony	7440-36-0	TRG	ug/l																											
Arsenic	7440-38-2	TRG	ug/l																											
Barium	7440-39-3	TRG	ug/l																											
Beryllium	7440-41-7	TRG	ug/l																											
Cadmium	7440-43-9	TRG	ug/l																											
Calcium	7440-70-2	TRG	ug/l																											
Chromium, Total	7440-47-3	TRG	ug/l																											
Cobalt	7440-48-4	TRG	ug/l																											
Copper	7440-50-8	TRG	ug/l																											
Iron	7439-89-6	TRG	ug/l																											
Lead	7439-92-1	TRG	ug/l																											
Magnesium	7439-95-4	TRG	ug/l																											
Manganese	7439-96-5	TRG	ug/l																											
Mercury	7439-97-6	TRG	ug/l																											
Nickel	7440-02-0	TRG	ug/l																											
Potassium	7440-09-7	TRG	ug/l																											
Selenium	7782-49-2	TRG	ug/l																											
Silver	7440-22-4	TRG	ug/l																											
Sodium	7440-23-5	TRG	ug/l																											
Thallium	7440-28-0	TRG	ug/l																											
Vanadium	7440-62-2	TRG	ug/l																											
Zinc	7440-66-6	TRG	ug/l																											
VOCs																														
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,1-Dichloroethane	75-34-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,1-Dichloroethene	75-35-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2-Dibromoethane	106-93-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2-Dichloroethane	107-06-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,2-Dichloropropane	78-87-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
2-Butanone	78-93-3	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*50*	*U*	*5*	*U*	*5*	*U*	*5*						
2-Hexanone	591-78-6	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*50*	*U*	*5*	*U*	*5*	*U*	*5*						
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*50*	*U*	*5*	*U*	*5*	*U*	*5*						
Acetone	67-64-1	TRG	ug/l	*5*	*U*	*5*	*U*	*5*	*U*	*10*	*U*	*5*	*U*	*5*	*U*	*5*	*U*	*50*	*U*	*5*	*U*	*5*	*U*	*5*						
Benzene	71-43-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Bromochloromethane	74-97-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Bromodichloromethane	75-27-4	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Bromoform	75-25-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Bromomethane	74-83-9	TRG	ug/l	*0.5*	*U*	*0.5*	*UJ*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*UJ*	*0.5*						
Carbon Disulfide	75-15-0	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	0.07						
Carbon Tetrachloride	56-23-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Chlorobenzene	108-90-7	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Chloroethane	75-00-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Chloroform	67-66-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Chloromethane	74-87-3	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Cyclohexane	110-82-7	TRG	ug/l	*0.5*	*U*	0.12	J	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						
Dibromochloromethane	124-48-1	TRG	ug/l	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*1*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*	*U*	*5*	*U*	*0.5*	*U*	*0.5*	*U*	*0.5*						

Notes:

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VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

| | | Location: | | Trip Blank | | Trip Blank | | Trip Blank

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

| | | | | Location: | Trip Blank | | Trip Blank | | Trip Blank |

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

| | | | | Location: | Trip Blank | | Trip Blank | | Trip Blank |

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank				
				Sample: 0112-GW	Trip Blank TB-20230113		Trip Blank TB-20230117-GW	
				Sample Date: 2023	1/13/2023		1/17/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual
Metals								
Aluminum	7429-90-5	TRG	ug/l					
Antimony	7440-36-0	TRG	ug/l					
Arsenic	7440-38-2	TRG	ug/l					
Barium	7440-39-3	TRG	ug/l					
Beryllium	7440-41-7	TRG	ug/l					
Cadmium	7440-43-9	TRG	ug/l					
Calcium	7440-70-2	TRG	ug/l					
Chromium, Total	7440-47-3	TRG	ug/l					
Cobalt	7440-48-4	TRG	ug/l					
Copper	7440-50-8	TRG	ug/l					
Iron	7439-89-6	TRG	ug/l					
Lead	7439-92-1	TRG	ug/l					
Magnesium	7439-95-4	TRG	ug/l					
Manganese	7439-96-5	TRG	ug/l					
Mercury	7439-97-6	TRG	ug/l					
Nickel	7440-02-0	TRG	ug/l					
Potassium	7440-09-7	TRG	ug/l					
Selenium	7782-49-2	TRG	ug/l					
Silver	7440-22-4	TRG	ug/l					
Sodium	7440-23-5	TRG	ug/l					
Thallium	7440-28-0	TRG	ug/l					
Vanadium	7440-62-2	TRG	ug/l					
Zinc	7440-66-6	TRG	ug/l					
VOCs								
1,1,1-Trichloroethane	71-55-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2,2-Tetrachloroethane	79-34-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,1,2-Trichloroethane	79-00-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethane	75-34-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,1-Dichloroethene	75-35-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichlorobenzene	87-61-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trichloropropane	96-18-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trichlorobenzene	120-82-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2,4-Trimethylbenzene	95-63-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
1,2-Dibromo-3-Chloropropane	96-12-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dibromoethane	106-93-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichlorobenzene	95-50-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloroethane	107-06-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2-Dichloropropane	78-87-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
1,3-Dichlorobenzene	541-73-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,4-Dichlorobenzene	106-46-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
2-Butanone	78-93-3	TRG	ug/l	*U*	*5*	*U*	*5*	*U*
2-Hexanone	591-78-6	TRG	ug/l	*U*	*5*	*U*	*5*	*U*
4-Methyl-2-Pentanone	108-10-1	TRG	ug/l	*U*	*5*	*U*	*5*	*U*
Acetone	67-64-1	TRG	ug/l	*U*	*5*	*U*	*5*	*U*
Benzene	71-43-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Bromochloromethane	74-97-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Bromodichloromethane	75-27-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Bromoform	75-25-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Bromomethane	74-83-9	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Carbon Disulfide	75-15-0	TRG	ug/l	J	*0.5*	*U*	*0.5*	*U*
Carbon Tetrachloride	56-23-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Chlorobenzene	108-90-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Chloroethane	75-00-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Chloroform	67-66-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Chloromethane	74-87-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
cis-1,2-Dichloroethene	156-59-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
cis-1,3-Dichloropropene	10061-01-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Cyclohexane	110-82-7	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Dibromochloromethane	124-48-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*

Notes:

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Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank		Trip Blank	
				Sample: 0112-GW	TB-20230113		TB-20230117-GW	
				Sample Date: 2023	1/13/2023		1/17/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual
Dichlorodifluoromethane	75-71-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Ethylbenzene	100-41-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
Isopropylbenzene	98-82-8	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
M, P Xylenes	179601-23-1	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
Methyl Acetate	79-20-9	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Methyl tert-Butyl Ether	1634-04-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Methylcyclohexane	108-87-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Methylene Chloride	75-09-2	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
o-Xylene (1,2-Dimethylbenzene)	95-47-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
Styrene	100-42-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
Tetrachloroethene (PCE)	127-18-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
Toluene	108-88-3	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
trans-1,2-Dichloroethene	156-60-5	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
trans-1,3-Dichloropropene	10061-02-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Trichloroethene (TCE)	79-01-6	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*UJ*
Trichlorofluoromethane	75-69-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
Vinyl Chloride	75-01-4	TRG	ug/l	*U*	*0.5*	*U*	*0.5*	*U*
1,2,3-Trimethyl Benzene	526-73-8	TIC	ug/l					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l	JN				
2-Ethylhexyl Acetate	103-09-3	TIC	ug/l					
3-Methylheptyl acetate	72218-58-7	TIC	ug/l					
Acenaphthene	83-32-9	TIC	ug/l					
Aminomethanesulfonic acid	013881-91-9	TIC	ug/l					
Benzo[c]thiophene	000270-82-6	TIC	ug/l					
Decyl Aldehyde	112-31-2	TIC	ug/l					
Indane	000496-11-7	TIC	ug/l					
Naphthalene	91-20-3	TIC	ug/l					
Nonanal	000124-19-6	TIC	ug/l	JN				
Nonanol	124-19-6	TIC	ug/l					
Octanal	124-13-0	TIC	ug/l					
Pentafluorobenzene	363-72-4	TIC	ug/l					
P-Monochlorobenzotrifluoride	98-56-6	TIC	ug/l					
Sulfur dioxide	007446-09-5	TIC	ug/l					
Sulfur dioxide	7446.09-5	TIC	ug/l					
Tetrahydrofuran	109-99-9	TIC	ug/l					
Total Alkane Tics	E966796	TIC	ug/l				0.064	
Unknown-01	UNKNOWN-01	TIC	ug/l					
Unknown-02	UNKNOWN-02	TIC	ug/l					
Unknown-03	UNKNOWN-03	TIC	ug/l					
Unknown-04	UNKNOWN-04	TIC	ug/l					
Unknown-05	UNKNOWN-05	TIC	ug/l					
Unknown-06	UNKNOWN-06	TIC	ug/l					
Unknown-07	UNKNOWN-07	TIC	ug/l					
Unknown-08	UNKNOWN-08	TIC	ug/l					
Unknown-09	UNKNOWN-09	TIC	ug/l					
SVOCs								
1,2,4,5-Tetrachlorobenzene	95-94-3	TRG	ug/l					
1,4-Dioxane (P-Dioxane)	123-91-1	TRG	ug/l					
1-methylnaphthalene	90-12-0	TRG	ug/l					
2,3,4,6-Tetrachlorophenol	58-90-2	TRG	ug/l					
2,4,5-Trichlorophenol	95-95-4	TRG	ug/l					
2,4,6-Trichlorophenol	88-06-2	TRG	ug/l					
2,4-Dichlorophenol	120-83-2	TRG	ug/l					
2,4-Dimethylphenol	105-67-9	TRG	ug/l					
2,4-Dinitrophenol	51-28-5	TRG	ug/l					
2,4-Dinitrotoluene	121-14-2	TRG	ug/l					
2,6-Dinitrotoluene	606-20-2	TRG	ug/l					
2-Chloronaphthalene	91-58-7	TRG	ug/l					
2-Chlorophenol	95-57-8	TRG	ug/l					
2-Methylnaphthalene	91-57-6	TRG	ug/l					
2-Methylphenol (O-Cresol)	95-48-7	TRG	ug/l					
2-Nitroaniline	88-74-4	TRG	ug/l					

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Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank		Trip Blank	
				Sample: 0112-GW	TB-20230113		TB-20230117-GW	
				Sample Date: 2023	1/13/2023		1/17/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual
2-Nitrophenol	88-75-5	TRG	ug/l					
3,3'-Dichlorobenzidine	91-94-1	TRG	ug/l					
3-Nitroaniline	99-09-2	TRG	ug/l					
4,6-Dinitro-2-Methylphenol	534-52-1	TRG	ug/l					
4-Bromophenyl Phenyl Ether	101-55-3	TRG	ug/l					
4-Chloro-3-Methylphenol	59-50-7	TRG	ug/l					
4-Chloroaniline	106-47-8	TRG	ug/l					
4-Chlorophenyl Phenyl Ether	7005-72-3	TRG	ug/l					
4-Methylphenol (P-Cresol)	106-44-5	TRG	ug/l					
4-Nitroaniline	100-01-6	TRG	ug/l					
4-Nitrophenol	100-02-7	TRG	ug/l					
Acenaphthene	83-32-9	TRG	ug/l					
Acenaphthylene	208-96-8	TRG	ug/l					
Acetophenone	98-86-2	TRG	ug/l					
Anthracene	120-12-7	TRG	ug/l					
Atrazine	1912-24-9	TRG	ug/l					
Benzaldehyde	100-52-7	TRG	ug/l					
Benzo(a)anthracene	56-55-3	TRG	ug/l					
Benzo(a)pyrene	50-32-8	TRG	ug/l					
Benzo(b)fluoranthene	205-99-2	TRG	ug/l					
Benzo(g,h,i)perylene	191-24-2	TRG	ug/l					
Benzo(k)fluoranthene	207-08-9	TRG	ug/l					
Benzyl Butyl Phthalate	85-68-7	TRG	ug/l					
Biphenyl (Diphenyl)	92-52-4	TRG	ug/l					
bis(2-Chloroethoxy) Methane	111-91-1	TRG	ug/l					
bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	TRG	ug/l					
bis(2-Chloroisopropyl) Ether	108-60-1	TRG	ug/l					
bis(2-Ethylhexyl) Phthalate	117-81-7	TRG	ug/l					
Caprolactam	105-60-2	TRG	ug/l					
Carbazole	86-74-8	TRG	ug/l					
Chrysene	218-01-9	TRG	ug/l					
Dibenz(a,h)anthracene	53-70-3	TRG	ug/l					
Dibenzofuran	132-64-9	TRG	ug/l					
Diethyl Phthalate	84-66-2	TRG	ug/l					
Dimethyl Phthalate	131-11-3	TRG	ug/l					
Di-N-Butyl Phthalate	84-74-2	TRG	ug/l					
Di-N-Octylphthalate	117-84-0	TRG	ug/l					
Fluoranthene	206-44-0	TRG	ug/l					
Fluorene	86-73-7	TRG	ug/l					
Hexachlorobenzene	118-74-1	TRG	ug/l					
Hexachlorobutadiene	87-68-3	TRG	ug/l					
Hexachlorocyclopentadiene	77-47-4	TRG	ug/l					
Hexachloroethane	67-72-1	TRG	ug/l					
Indeno(1,2,3-c,d)pyrene	193-39-5	TRG	ug/l					
Isophorone	78-59-1	TRG	ug/l					
Naphthalene	91-20-3	TRG	ug/l					
Nitrobenzene	98-95-3	TRG	ug/l					
N-Nitrosodi-N-Propylamine	621-64-7	TRG	ug/l					
N-Nitrosodiphenylamine	86-30-6	TRG	ug/l					
Pentachlorophenol	87-86-5	TRG	ug/l					
Phenanthrene	85-01-8	TRG	ug/l					
Phenol	108-95-2	TRG	ug/l					
Pyrene	129-00-0	TRG	ug/l					
1-Hexadecene	629-73-2	TIC	ug/l					
1-Hexanol, 2-ethyl-	000104-76-7	TIC	ug/l					
2,7-Dimethyl Naphthalene	582-16-1	TIC	ug/l					
2-Chlorocyclohexanol	1561-86-0	TIC	ug/l					
5-Bromo-4-oxo-4,5,6,7-tetrahydrobe	300574-36-1	TIC	ug/l					
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	082304-66-3	TIC	ug/l					
7,9-Di-Tert-Butyl-1-Oxaspiro(4,5)Deca-6	82304-66-3	TIC	ug/l					
7-Oxabicyclo[2.2.1]heptane	279-49-2	TIC	ug/l					
7-Oxabicyclo[4.1.0]heptane	286-20-4	TIC	ug/l					

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

Appendix K
Sample Blank Results
GCL Tie treating Superfund Site
Sidney, New York

				Location: Blank	Trip Blank		Trip Blank	
				Sample: 0112-GW	TB-20230113		TB-20230117-GW	
				Sample Date: 2023	1/13/2023		1/17/2023	
Analyte	CAS	Result Type	Unit	Qual	Result	Qual	Result	Qual
Benzene	71-43-2	TIC	ug/l					
Cyclohexanone	108-94-1	TIC	ug/l					
Cyclohexene	110-83-8	TIC	ug/l					
Decamethyl-Cyclopentasiloxane	541-02-6	TIC	ug/l					
Ethylidenecyclobutane	1528-21-8	TIC	ug/l					
Hexadecanoic Acid	57-10-3	TIC	ug/l					
Isovanillin	621-59-0	TIC	ug/l					
m-Xylene (1,3-Dimethylbenzene)	108-38-3	TIC	ug/l					
Nonanoic Acid	112-05-0	TIC	ug/l					
Octadecanoic Acid	57-11-4	TIC	ug/l					
Octanoic Acid	124-07-2	TIC	ug/l					
Oleamide	301-02-0	TIC	ug/l					
Pentaethylene Glycol	4792-15-8	TIC	ug/l					
P-Xylene (1,4-Dimethylbenzene)	106-42-3	TIC	ug/l					
Tetraethylene Glycol	112-60-7	TIC	ug/l					
Total Alkane Tics	E966796	TIC	ug/l					
Triphenylphosphine Oxide	791-28-6	TIC	ug/l					
Unknown-01	UNKNOWN-01	TIC	ug/l					
Unknown-02	UNKNOWN-02	TIC	ug/l					
Parameters								
Alkalinity, Total (As Caco3)	ALK	TRG	mg/l					
Hardness (As Caco3)	HARD	TRG	mg/l					
Nitrogen, Nitrate (As N)	14797-55-8	TRG	mg/l					
Nitrogen, Nitrite (as N)	14797-65-0	TRG	mg/l					
Oil & Grease, Hem-Grav	HEMOILGREASE	TRG	mg/l					
Sulfate (As So4)	14808-79-8	TRG	mg/l					
Total Petroleum Hydrocarbons	TPH	TRG	mg/l					

Notes:

VALUE is non-detect.
VALUE exceeds relevant EPA RSL.
VALUE is non-detect but the reporting limit exceeds the critiera.

B Analyte was found in the associated method blank as well as in the sample.
D Result was run under a dilution.
J Estimated value. +/- indicates direction of bias.

N Result is a tentatively identified compound.
R Result was rejected by the validator.
U Result was not detected. Reporting detection limit is listed instead.

APPENDIX L

ANALYTICAL REPORT

Lab Number:	L2250642
Client:	HDR Engineering, Inc. One International Boulevard 10th Floor Suite 1000 Mahwah, NJ 07495
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50238
Report Date:	09/30/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2250642
Report Date: 09/30/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2250642-01	EB-20220912	WATER	Not Specified	09/12/22 17:00	09/15/22
L2250642-02	EB-20220914	WATER	Not Specified	09/14/22 12:15	09/15/22
L2250642-03	FB-20220912	WATER	Not Specified	09/12/22 17:00	09/15/22
L2250642-04	FB-20220914	WATER	Not Specified	09/14/22 12:00	09/15/22
L2250642-05	SB-BR-LIF16-25-26	SOIL	Not Specified	09/12/22 15:30	09/15/22
L2250642-06	SB-BR-LIF16-25-26-1	SOIL	Not Specified	09/12/22 15:30	09/15/22
L2250642-07	SB-BR-LIF18-12-13	SOIL	Not Specified	09/14/22 13:50	09/15/22
L2250642-08	SB-BR-LIF18-31-32	SOIL	Not Specified	09/14/22 14:10	09/15/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2250642
Project Number:	50238	**Report Date:**	09/30/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2250642
Project Number:	50238	**Report Date:**	09/30/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2250642-01: The collection date and time on the chain of custody was 12-SEP-22 17:00; however, the collection date/time on the container label was 13-SEP-22 17:00. At the client's request, the collection date/time is reported as 12-SEP-22 17:00.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 09/30/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-01
Client ID: EB-20220912
Sample Location: Not Specified

Sample Depth:
Matrix: Water

Date Collected: 09/12/22 17:00
Date Received: 09/15/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	09/30/22 13:00	09/30/22 14:28	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-02
Client ID: EB-20220914
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 09/14/22 12:15
Date Received: 09/15/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	2.63	J	mg/l	4.00	1.24	1	09/30/22 13:00	09/30/22 14:28	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-03
Client ID: FB-20220912
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 09/12/22 17:00
Date Received: 09/15/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	2.53	J	mg/l	4.00	1.24	1	09/30/22 13:00	09/30/22 14:28	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-04
Client ID: FB-20220914
Sample Location: Not Specified

Date Collected: 09/14/22 12:00
Date Received: 09/15/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	2.00	J	mg/l	4.40	1.36	1.1	09/30/22 13:00	09/30/22 14:28	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-05
Client ID: SB-BR-LIF16-25-26
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Date Collected: 09/12/22 15:30
Date Received: 09/15/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	76.5		%	0.100	NA	1	-	09/21/22 09:29	121,2540G	RI
Oil & Grease, Hem-Grav	ND		mg/kg	261	261.	1	09/22/22 18:00	09/23/22 15:10	1,9071B	TL
TPH, HEM-SGT	ND		mg/kg	261	261.	1	09/22/22 18:00	09/23/22 16:30	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-06
Client ID: SB-BR-LIF16-25-26-1
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 09/12/22 15:30
Date Received: 09/15/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.3		%	0.100	NA	1	-	09/21/22 09:29	121,2540G	RI
Oil & Grease, Hem-Grav	ND		mg/kg	255	255.	1	09/22/22 18:00	09/23/22 15:10	1,9071B	TL
TPH, HEM-SGT	ND		mg/kg	255	255.	1	09/22/22 18:00	09/23/22 16:30	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-07
Client ID: SB-BR-LIF18-12-13
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 09/14/22 13:50
Date Received: 09/15/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.5		%	0.100	NA	1	-	09/21/22 09:29	121,2540G	RI
Oil & Grease, Hem-Grav	10600		mg/kg	255	255.	1	09/22/22 18:00	09/23/22 15:10	1,9071B	TL
TPH, HEM-SGT	6200		mg/kg	255	255.	1	09/22/22 18:00	09/23/22 16:30	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2250642
Report Date: 09/30/22

SAMPLE RESULTS

Lab ID: L2250642-08
Client ID: SB-BR-LIF18-31-32
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 09/14/22 14:10
Date Received: 09/15/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.1		%	0.100	NA	1	-	09/21/22 09:29	121,2540G	RI
Oil & Grease, Hem-Grav	ND		mg/kg	230	230.	1	09/22/22 18:00	09/23/22 15:10	1,9071B	TL
TPH, HEM-SGT	ND		mg/kg	230	230.	1	09/22/22 18:00	09/23/22 16:30	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2250642
Report Date: 09/30/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 05-08 Batch: WG1690868-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	09/22/22 18:00	09/23/22 16:30	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 05-08 Batch: WG1690869-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	09/22/22 18:00	09/23/22 15:10	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1693916-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	09/30/22 13:00	09/30/22 14:28	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50238

Lab Number: L2250642

Report Date: 09/30/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05-08 Batch: WG1690868-2								
TPH, HEM-SGT	87		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 05-08 Batch: WG1690869-2								
Oil & Grease, Hem-Grav	98		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1693916-2								
TPH	123		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2250642
Report Date: 09/30/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05-08 31-32	QC Batch ID: WG1690868-4			QC Sample: L2250642-08			Client ID: SB-BR-LIF18-					
TPH, HEM-SGT	ND	2300	1870	81		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 05-08 31-32	QC Batch ID: WG1690869-4			QC Sample: L2250642-08			Client ID: SB-BR-LIF18-					
Oil & Grease, Hem-Grav	ND	4590	4370	95		-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-04	QC Batch ID: WG1693916-4			QC Sample: L2243988-99			Client ID: MS Sample					
TPH	ND	20	17.9	90		-	-		64-132	-		34

Lab Duplicate Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2250642
Report Date: 09/30/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05-08 QC Batch ID: WG1690021-1 QC Sample: L2250642-05 Client ID: SB-BR-LIF16-25-26						
Solids, Total	76.5	77.5	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 05-08 QC Batch ID: WG1690868-3 QC Sample: L2250642-08 Client ID: SB-BR-LIF18-31-32						
TPH, HEM-SGT	ND	ND	mg/kg	NC		34
General Chemistry - Westborough Lab Associated sample(s): 05-08 QC Batch ID: WG1690869-3 QC Sample: L2250642-08 Client ID: SB-BR-LIF18-31-32						
Oil & Grease, Hem-Grav	ND	ND	mg/kg	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1693916-3 QC Sample: L2243988-98 Client ID: DUP Sample						
TPH	2.60J	3.66J	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2250642
Report Date: 09/30/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2250642-01A	Amber 1000ml HCl preserved	A	NA		2.5	Y	Absent		TPH-1664(28)
L2250642-02A	Amber 1000ml HCl preserved	A	NA		2.5	Y	Absent		TPH-1664(28)
L2250642-03A	Amber 1000ml HCl preserved	A	NA		2.5	Y	Absent		TPH-1664(28)
L2250642-04A	Amber 1000ml HCl preserved	A	NA		2.5	Y	Absent		TPH-1664(28)
L2250642-05A	Glass 250ml/8oz unpreserved	A	NA		2.5	Y	Absent		TS(7),TPH-9071(28),OG-9071(28)
L2250642-06A	Glass 250ml/8oz unpreserved	A	NA		2.5	Y	Absent		TPH-9071(28),TS(7),OG-9071(28)
L2250642-07A	Glass 250ml/8oz unpreserved	A	NA		2.5	Y	Absent		TPH-9071(28),TS(7),OG-9071(28)
L2250642-08A	Glass 250ml/8oz unpreserved	A	NA		2.5	Y	Absent		TPH-9071(28),TS(7),OG-9071(28)

Container Comments

L2250642-01A	individual container custody seal intact
L2250642-02A	individual container custody seal intact
L2250642-03A	individual container custody seal intact
L2250642-04A	individual container custody seal intact
L2250642-05A	individual container custody seal intact
L2250642-06A	individual container custody seal intact
L2250642-07A	individual container custody seal intact
L2250642-08A	individual container custody seal intact

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2250642
Project Number:	50238	**Report Date:**	09/30/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2250642
Project Number:	50238	**Report Date:**	09/30/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2250642
Project Number:	50238	**Report Date:**	09/30/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2250642
Project Number:	50238	**Report Date:**	09/30/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2250642

Page 1 of 1

USEPA CLP COC (REGION COPY)

DateShipped: 9/15/2022
CarrierName: Courier
AirBillNo:

CHAIN OF CUSTODY RECORD
GCL Re and Treating Facility
Case #: 50230
Cooler # : 1

No: 2-091322-144937-0003
Lab: Alpha Analytical
Lab Contact: Nadine Yokes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
EB-20220912		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/12/2022 17:00	Equipment Blank
EB-20220914		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/14/2022 12:15	Equipment Blank
FB-20220912		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/12/2022 17:00	Field Blank
FB-20220914		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/14/2022 12:00	Field Blank
SB-BR-LIF16-25-26		Soil/ HDR OBG JV	Grab	TPH(10)	A (4 C) (1)	SB-BR-LIF16	09/12/2022 15:30	Field Sample
SB-BR-LIF16-25-26-1		Soil/ HDR OBG JV	Grab	TPH(10)	A (4 C) (1)	SB-BR-LIF16	09/12/2022 15:30	Field Duplicate
SB-BR-LIF16-12-13		Soil/ HDR OBG JV	Grab	TPH(10)	A (4 C) (1)	SB-BR-LIF16	09/14/2022 13:50	Field Sample
SB-BR-LIF16-31-32		Soil/ HDR OBG JV	Grab	TPH(10)	A (4 C) (1)	SB-BR-LIF16	09/14/2022 14:10	Field Sample

Special Instructions: NAPL observed in SB-BR-LIF16-12-13 and likely SB-BR-LIF16-31-32

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TPH=TPH

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples hand left to lab courier	HDR	9/15/2022 1200			
	Richard Kanaly	9/15/22 1700	Wendy Manning	9/16/22 8:30	

ANALYTICAL REPORT

Lab Number:	L2252956
Client:	HDR Engineering, Inc. One International Boulevard 10th Floor Suite 1000 Mahwah, NJ 07495
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50238
Report Date:	10/10/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2252956
Report Date: 10/10/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2252956-01	EB-20220922	WATER	Not Specified	09/22/22 17:15	09/26/22
L2252956-02	EB-20220923	WATER	Not Specified	09/23/22 09:15	09/26/22
L2252956-03	FB-20220922	WATER	Not Specified	09/22/22 17:30	09/26/22
L2252956-04	FB-20220923	WATER	Not Specified	09/23/22 09:00	09/26/22
L2252956-05	SB-BR-LIF22-19-20	SOIL	Not Specified	09/22/22 16:30	09/26/22
L2252956-06	SB-BR-LIF22-48-49	SOIL	Not Specified	09/23/22 11:10	09/26/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2252956
Project Number:	50238	**Report Date:**	10/10/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2252956
Project Number:	50238	**Report Date:**	10/10/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 10/10/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2252956
Report Date: 10/10/22

SAMPLE RESULTS

Lab ID: L2252956-01
Client ID: EB-20220922
Sample Location: Not Specified

Date Collected: 09/22/22 17:15
Date Received: 09/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	ND		mg/l	4.40	1.36	1.1	10/09/22 21:45	10/09/22 22:45	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2252956
Report Date: 10/10/22

SAMPLE RESULTS

Lab ID: L2252956-02
Client ID: EB-20220923
Sample Location: Not Specified

Date Collected: 09/23/22 09:15
Date Received: 09/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/09/22 21:45	10/09/22 22:45	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2252956
Report Date: 10/10/22

SAMPLE RESULTS

Lab ID: L2252956-03
Client ID: FB-20220922
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 09/22/22 17:30
Date Received: 09/26/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	1.57	J	mg/l	4.40	1.36	1.1	10/09/22 21:45	10/09/22 22:45	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2252956
Report Date: 10/10/22

SAMPLE RESULTS

Lab ID: L2252956-04
Client ID: FB-20220923
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 09/23/22 09:00
Date Received: 09/26/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
TPH, SGT-HEM	ND		mg/l	4.40	1.36	1.1	10/09/22 21:45	10/09/22 22:45	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2252956
Report Date: 10/10/22

SAMPLE RESULTS

Lab ID: L2252956-05
Client ID: SB-BR-LIF22-19-20
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 09/22/22 16:30
Date Received: 09/26/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.8		%	0.100	NA	1	-	09/28/22 11:50	121,2540G	RI
Oil & Grease, Hem-Grav	8110		mg/kg	236	236.	1	10/02/22 15:30	10/02/22 20:40	1,9071B	TL
TPH, HEM-SGT	719		mg/kg	236	236.	1	10/02/22 15:30	10/02/22 21:35	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2252956
Report Date: 10/10/22

SAMPLE RESULTS

Lab ID: L2252956-06
Client ID: SB-BR-LIF22-48-49
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 09/23/22 11:10
Date Received: 09/26/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.8		%	0.100	NA	1	-	09/28/22 11:50	121,2540G	RI
Oil & Grease, Hem-Grav	ND		mg/kg	267	267.	1	10/02/22 15:30	10/02/22 20:40	1,9071B	TL
TPH, HEM-SGT	ND		mg/kg	267	267.	1	10/02/22 15:30	10/02/22 21:35	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2252956
Report Date: 10/10/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 05-06 Batch: WG1694618-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	10/02/22 15:30	10/02/22 21:35	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 05-06 Batch: WG1694619-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	10/02/22 15:30	10/02/22 20:40	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1697294-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/09/22 21:45	10/09/22 22:45	140,1664B	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50238

Lab Number: L2252956

Report Date: 10/10/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05-06 Batch: WG1694618-2								
TPH, HEM-SGT	78		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 05-06 Batch: WG1694619-2								
Oil & Grease, Hem-Grav	101		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1697294-2								
TPH	83		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2252956
Report Date: 10/10/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05-06 QC Batch ID: WG1694618-4 QC Sample: L2253975-01 Client ID: MS Sample												
TPH, HEM-SGT	604	2280	2440	81		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 05-06 QC Batch ID: WG1694619-4 QC Sample: L2243988-117 Client ID: MS Sample												
Oil & Grease, Hem-Grav	2500	4000	6570	102		-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1697294-4 QC Sample: L2253197-01 Client ID: MS Sample												
TPH	ND	19.2	15.2	79		-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50238

Lab Number: L2252956

Report Date: 10/10/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 05-06 QC Batch ID: WG1693047-1 QC Sample: L2253302-01 Client ID: DUP Sample						
Solids, Total	84.6	85.9	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 05-06 QC Batch ID: WG1694618-3 QC Sample: L2253975-01 Client ID: DUP Sample						
TPH, HEM-SGT	604	581	mg/kg	4		34
General Chemistry - Westborough Lab Associated sample(s): 05-06 QC Batch ID: WG1694619-3 QC Sample: L2243988-117 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	2500	1690	mg/kg	**39**	Q	18
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1697294-3 QC Sample: L2251381-02 Client ID: DUP Sample						
TPH	1.56J	ND	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2252956
Report Date: 10/10/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2252956-01A	Amber 1000ml HCl preserved	A	NA		5.5	Y	Absent		TPH-1664(28)
L2252956-02A	Amber 1000ml HCl preserved	A	NA		5.5	Y	Absent		TPH-1664(28)
L2252956-03A	Amber 1000ml HCl preserved	A	NA		5.5	Y	Absent		TPH-1664(28)
L2252956-04A	Amber 1000ml HCl preserved	A	NA		5.5	Y	Absent		TPH-1664(28)
L2252956-05A	Glass 250ml/8oz unpreserved	A	NA		5.5	Y	Absent		TS(7),TPH-9071(28),OG-9071(28)
L2252956-06A	Glass 250ml/8oz unpreserved	A	NA		5.5	Y	Absent		TPH-9071(28),TS(7),OG-9071(28)

Container Comments

L2252956-01A	Container had custody seal
L2252956-02A	Container had custody seal
L2252956-03A	Container had custody seal
L2252956-04A	Container had custody seal
L2252956-05A	Container had custody seal
L2252956-06A	Container had custody seal

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2252956
Project Number:	50238	**Report Date:**	10/10/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2252956
Project Number:	50238	**Report Date:**	10/10/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2252956
Project Number:	50238	**Report Date:**	10/10/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2252956
Project Number:	50238	**Report Date:**	10/10/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L22 52956

USEPA CLP COC (LAB COPY)
DateShipped: 9/26/2022
CarrierName: Courier
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50238
Cooler #: 1

No: 2-092622-105735-0010
Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20220922		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/22/2022 17:15	
EB-20220923		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/23/2022 09:15	
FB-20220922		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/22/2022 17:30	
FB-20220923		Water/ HDR OBG JV	Grab	TPH(10)	A (HCl) (1)	Blank	09/23/2022 09:00	
SB-BR-LIF22-19-20		Soil/ HDR OBG JV	Grab	TPH(10) OG	A (4 C) (1)	SB-BR-LIF22	09/22/2022 16:30	
SB-BR-LIF22-48-49		Soil/ HDR OBG JV	Grab	TPH(10) OG	A (4 C) (1)	SB-BR-LIF22	09/23/2022 11:10	

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TPH=TPH

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples Shipped via Courier	HDR	9-26-2022 1130 1400	Alpha Analytical	9/26/22 1400	
		9/26/22 1555		9/27/22 0020	

ANALYTICAL REPORT

Lab Number:	L2253783
Client:	HDR Engineering, Inc. One International Boulevard 10th Floor Suite 1000 Mahwah, NJ 07495
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50238
Report Date:	10/13/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2253783
Report Date: 10/13/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2253783-01	EB-20220928	WATER	Not Specified	09/28/22 11:15	09/29/22
L2253783-02	FB-20220928	WATER	Not Specified	09/28/22 11:00	09/29/22
L2253783-03	GW-SB-BR-LIF22-100-120	WATER	Not Specified	09/28/22 10:40	09/29/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2253783
Project Number:	50238	**Report Date:**	10/13/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2253783
Project Number:	50238	**Report Date:**	10/13/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly O'Neill

Title: Technical Director/Representative Date: 10/13/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2253783
Report Date: 10/13/22

SAMPLE RESULTS

Lab ID: L2253783-01
Client ID: EB-20220928
Sample Location: Not Specified

Date Collected: 09/28/22 11:15
Date Received: 09/29/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.4	4.4	1.1	10/12/22 11:00	10/12/22 17:00	140,1664B	JM
TPH, SGT-HEM	1.37	J	mg/l	4.40	1.36	1.1	10/12/22 17:00	10/12/22 18:00	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2253783
Report Date: 10/13/22

SAMPLE RESULTS

Lab ID: L2253783-02
Client ID: FB-20220928
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 09/28/22 11:00
Date Received: 09/29/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.4	4.4	1.1	10/12/22 11:00	10/12/22 17:00	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.40	1.36	1.1	10/12/22 17:00	10/12/22 18:00	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2253783
Report Date: 10/13/22

SAMPLE RESULTS

Lab ID: L2253783-03
Client ID: GW-SB-BR-LIF22-100-120
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 09/28/22 10:40
Date Received: 09/29/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/12/22 11:00	10/12/22 17:00	140,1664B	JM
TPH, SGT-HEM	2.48	J	mg/l	4.00	1.24	1	10/12/22 17:00	10/12/22 18:00	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50238
Lab Number: L2253783
Report Date: 10/13/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1698436-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/12/22 11:00	10/12/22 17:00	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1698451-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/12/22 17:00	10/12/22 18:00	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50238

Lab Number: L2253783

Report Date: 10/13/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1698436-2								
Oil & Grease, Hem-Grav	93		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1698451-2								
TPH	115		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2253783
Report Date: 10/13/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1698436-4 QC Sample: L2253987-53 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	39.6	31	78		-	-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1698451-4 QC Sample: L2255993-02 Client ID: MS Sample												
TPH	ND	19.8	22.7	114		-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50238

Lab Number: L2253783

Report Date: 10/13/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1698436-3 QC Sample: L2253987-52 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1698451-3 QC Sample: L2255993-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50238

Lab Number: L2253783
Report Date: 10/13/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2253783-01A	Amber 1000ml HCl preserved	A	NA		3.1	Y	Absent		TPH-1664(28),OG-1664(28)
L2253783-02A	Amber 1000ml HCl preserved	A	NA		3.1	Y	Absent		TPH-1664(28),OG-1664(28)
L2253783-03A	Amber 1000ml HCl preserved	A	NA		3.1	Y	Absent		TPH-1664(28),OG-1664(28)

Container Comments

L2253783-01A	Container Seal Present/Intact
L2253783-02A	Container Seal Present/Intact
L2253783-03A	Container Seal Present/Intact

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2253783
Project Number:	50238	**Report Date:**	10/13/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2253783
Project Number:	50238	**Report Date:**	10/13/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2253783
Project Number:	50238	**Report Date:**	10/13/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2253783
Project Number:	50238	**Report Date:**	10/13/22

REFERENCES

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2253783

USEPA CLP COC (LAB COPY)

DateShipped: 9/29/2022
CarrierName: Courier
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50238
Cooler #: 1

No: 2-092922-095207-0014

Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20220928	-	Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	09/28/2022 11:15	53783-01
FB-20220928	-	Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	09/28/2022 11:00	02
GW-SB-BR-LIF22-100-120	-	Ground Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	SB-BR-LIF22	09/28/2022 10:40	03

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples shipped via courier	HDR	9-29-2022 1200		9/9/22 12:15	
	AAL Sec. Service	9/29/22 1428	AAL	9/29/22 1428	
	AAL	9/29/22 1428		9/30/22 0100	

ANALYTICAL REPORT

Lab Number:	L2255180
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	10/19/22

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2255180
Report Date: 10/19/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2255180-01	EB-20221003	WATER	Not Specified	10/03/22 13:15	10/05/22
L2255180-02	FB-20221003	WATER	Not Specified	10/03/22 13:05	10/05/22
L2255180-03	SB-BR-03-33-34	SOIL	Not Specified	10/03/22 15:45	10/05/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2255180
Project Number:	50385	**Report Date:**	10/19/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2255180
Project Number:	50385	**Report Date:**	10/19/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 10/19/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2255180
Report Date: 10/19/22

SAMPLE RESULTS

Lab ID: L2255180-01
Client ID: EB-20221003
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/03/22 13:15
Date Received: 10/05/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/19/22 10:30	10/19/22 16:14	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/19/22 11:00	10/19/22 18:25	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2255180
Report Date: 10/19/22

SAMPLE RESULTS

Lab ID: L2255180-02
Client ID: FB-20221003
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/03/22 13:05
Date Received: 10/05/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/19/22 10:30	10/19/22 16:14	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/19/22 11:00	10/19/22 18:25	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2255180
Report Date: 10/19/22

SAMPLE RESULTS

Lab ID: L2255180-03
Client ID: SB-BR-03-33-34
Sample Location: Not Specified

Date Collected: 10/03/22 15:45
Date Received: 10/05/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	73.9		%	0.100	NA	1	-	10/07/22 13:07	121,2540G	RI
Oil & Grease, Hem-Grav	41600		mg/kg	271	271.	1	10/16/22 14:30	10/16/22 22:45	1,9071B	TL
TPH, HEM-SGT	18100		mg/kg	271	271.	1	10/16/22 14:30	10/16/22 21:45	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2255180
Report Date: 10/19/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1700158-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	10/16/22 14:30	10/16/22 22:45	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1700160-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	10/16/22 14:30	10/16/22 21:45	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1701409-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/19/22 11:00	10/19/22 18:25	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1701412-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/19/22 10:30	10/19/22 16:14	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2255180

Report Date: 10/19/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1700158-2								
Oil & Grease, Hem-Grav	103		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1700160-2								
TPH, HEM-SGT	80		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1701409-2								
TPH	74		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1701412-2								
Oil & Grease, Hem-Grav	93		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2255180
Report Date: 10/19/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1700158-4 QC Sample: L2256835-07 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	4480	4610	103		-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1700160-4 QC Sample: L2253987-93 Client ID: MS Sample												
TPH, HEM-SGT	ND	2000	1650	82		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1701409-4 QC Sample: L2253989-09 Client ID: MS Sample												
TPH	3.50J	20	18.6	93		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1701412-4 QC Sample: L2253989-09 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	40	130	**321**	Q	-	-		78-114	-		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2255180

Report Date: 10/19/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1696747-1 QC Sample: L2255639-01 Client ID: DUP Sample						
Solids, Total	80.6	83.5	%	4		20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1700158-3 QC Sample: L2256835-07 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/kg	NC		18
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1700160-3 QC Sample: L2253987-93 Client ID: DUP Sample						
TPH, HEM-SGT	ND	ND	mg/kg	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1701409-3 QC Sample: L2253989-08 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1701412-3 QC Sample: L2253989-08 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2255180
Report Date: 10/19/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2255180-01A	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		TPH-1664(28),OG-1664(28)
L2255180-02A	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		TPH-1664(28),OG-1664(28)
L2255180-03A	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		TS(7),TPH-9071(28),OG-9071(28)

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2255180
Project Number:	50385	**Report Date:**	10/19/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2255180
Project Number:	50385	**Report Date:**	10/19/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2255180
Project Number:	50385	**Report Date:**	10/19/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2255180
Project Number:	50385	**Report Date:**	10/19/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Page 1 of 1

L2255180

USEPA CLP COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 2-100522-112001-0018

DateShipped: 10/5/2022
CarrierName: Courier
AirbillNo:

Case #: 50385
Cooler #: 1

Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20221003	-	Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/03/2022 13:15	
FB-20221003	-	Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/03/2022 13:05	
SB-BR-03-33-34	-	Soil/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (1)	SB-BR-03	10/03/2022 15:45	

Shipment for Case Complete? N

Special Instructions:

Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples shipped via FedEx	HDR	10/5/22 1410	Rick Kanady	10-5-22 1410	
	Rick Kanady	10/5/22 1605		10/6/22 0000	

ANALYTICAL REPORT

Lab Number:	L2257033
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	10/31/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2257033
Report Date: 10/31/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2257033-01	EB-20221011	WATER	Not Specified	10/11/22 14:45	10/13/22
L2257033-02	EB-20221012	WATER	Not Specified	10/12/22 10:15	10/13/22
L2257033-03	FB-20221011	WATER	Not Specified	10/11/22 14:30	10/13/22
L2257033-04	FB-20221012	WATER	Not Specified	10/12/22 10:10	10/13/22
L2257033-05	GW-SB-BR-02-90-100	WATER	Not Specified	10/12/22 15:40	10/13/22
L2257033-06	SB-BR-02-13-14	SOIL	Not Specified	10/11/22 15:10	10/13/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2257033
Project Number:	50385	**Report Date:**	10/31/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2257033
Project Number:	50385	**Report Date:**	10/31/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 10/31/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2257033
Report Date: 10/31/22

SAMPLE RESULTS

Lab ID: L2257033-01
Client ID: EB-20221011
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/11/22 14:45
Date Received: 10/13/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/30/22 11:00	10/30/22 13:30	140,1664B	TL
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/30/22 13:45	10/30/22 16:30	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2257033
Report Date: 10/31/22

SAMPLE RESULTS

Lab ID: L2257033-02
Client ID: EB-20221012
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/12/22 10:15
Date Received: 10/13/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/30/22 11:00	10/30/22 13:30	140,1664B	TL
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/30/22 13:45	10/30/22 16:30	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2257033
Report Date: 10/31/22

SAMPLE RESULTS

Lab ID: L2257033-03
Client ID: FB-20221011
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/11/22 14:30
Date Received: 10/13/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/30/22 11:00	10/30/22 13:30	140,1664B	TL
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/30/22 13:45	10/30/22 16:30	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2257033
Report Date: 10/31/22

SAMPLE RESULTS

Lab ID: L2257033-04
Client ID: FB-20221012
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/12/22 10:10
Date Received: 10/13/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/30/22 11:00	10/30/22 13:30	140,1664B	TL
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/30/22 13:45	10/30/22 16:30	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2257033
Report Date: 10/31/22

SAMPLE RESULTS

Lab ID: L2257033-05
Client ID: GW-SB-BR-02-90-100
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/12/22 15:40
Date Received: 10/13/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	5.5		mg/l	4.0	4.0	1	10/30/22 11:00	10/30/22 13:30	140,1664B	TL
TPH, SGT-HEM	2.16	J	mg/l	4.00	1.24	1	10/30/22 13:45	10/30/22 16:30	140,1664B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2257033
Report Date: 10/31/22

SAMPLE RESULTS

Lab ID: L2257033-06
Client ID: SB-BR-02-13-14
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 10/11/22 15:10
Date Received: 10/13/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75.4		%	0.100	NA	1	-	10/18/22 11:47	121,2540G	RI
Oil & Grease, Hem-Grav	5460		mg/kg	265	265.	1	10/23/22 15:00	10/23/22 20:30	1,9071B	TL
TPH, HEM-SGT	703		mg/kg	265	265.	1	10/23/22 15:00	10/23/22 21:00	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2257033
Report Date: 10/31/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 06 Batch: WG1703114-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	10/23/22 15:00	10/23/22 21:00	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 06 Batch: WG1703118-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	10/23/22 15:00	10/23/22 20:30	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1705921-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	10/30/22 13:45	10/30/22 16:30	140,1664B	TL
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1705922-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	10/30/22 11:00	10/30/22 13:30	140,1664B	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2257033

Report Date: 10/31/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 06 Batch: WG1703114-2								
TPH, HEM-SGT	90		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 06 Batch: WG1703118-2								
Oil & Grease, Hem-Grav	102		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1705921-2								
TPH	99		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1705922-2								
Oil & Grease, Hem-Grav	112		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2257033
Report Date: 10/31/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 06 QC Batch ID: WG1703114-4 QC Sample: L2253989-45 Client ID: MS Sample												
TPH, HEM-SGT	750	2000	3280	127		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 06 QC Batch ID: WG1703118-4 QC Sample: L2258575-01 Client ID: MS Sample												
Oil & Grease, Hem-Grav	4370	4300	10600	**145**	Q	-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1705921-4 QC Sample: L2259578-02 Client ID: MS Sample												
TPH	ND	19.2	13.8	72		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1705922-4 QC Sample: L2253987-114 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	38.5	35	90		-	-		78-114	-		18

Lab Duplicate Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2257033
Report Date: 10/31/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 06 QC Batch ID: WG1700882-1 QC Sample: L2256824-01 Client ID: DUP Sample						
Solids, Total	84.1	86.4	%	3		20
General Chemistry - Westborough Lab Associated sample(s): 06 QC Batch ID: WG1703114-3 QC Sample: L2253989-45 Client ID: DUP Sample						
TPH, HEM-SGT	750	890	mg/kg	17		34
General Chemistry - Westborough Lab Associated sample(s): 06 QC Batch ID: WG1703118-3 QC Sample: L2258575-01 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	4370	5420	mg/kg	**21**	Q	18
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1705921-3 QC Sample: L2259578-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1705922-3 QC Sample: L2253987-113 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2257033
Report Date: 10/31/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2257033-01A	Amber 1000ml HCl preserved	A	NA		3.8	Y	Absent		TPH-1664(28),OG-1664(28)
L2257033-02A	Amber 1000ml HCl preserved	A	NA		3.8	Y	Absent		TPH-1664(28),OG-1664(28)
L2257033-03A	Amber 1000ml HCl preserved	A	NA		3.8	Y	Absent		TPH-1664(28),OG-1664(28)
L2257033-04A	Amber 1000ml HCl preserved	A	NA		3.8	Y	Absent		OG-1664(28),TPH-1664(28)
L2257033-05A	Amber 1000ml HCl preserved	A	NA		3.8	Y	Absent		OG-1664(28),TPH-1664(28)
L2257033-06A	Glass 250ml/8oz unpreserved	A	NA		3.8	Y	Absent		TS(7),TPH-9071(28),OG-9071(28)

Container Comments

L2257033-01A	Container received with custody seal intact
L2257033-02A	Container received with custody seal intact
L2257033-03A	Container received with custody seal intact
L2257033-04A	Container received with custody seal intact
L2257033-05A	Container received with custody seal intact
L2257033-06A	Container received with custody seal intact

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2257033
Project Number:	50385	**Report Date:**	10/31/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2257033
Project Number:	50385	**Report Date:**	10/31/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2257033
Project Number:	50385	**Report Date:**	10/31/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2257033
Project Number:	50385	**Report Date:**	10/31/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Page 1 of 1

L2257033

USEPA CLP COC (REGION COPY)

DateShipped: 10/13/2022
CarrierName: Courier
AirbillNo:

CHAIN OF CUSTODY RECORD

GCL Tie and Treating Inc./NY
Case #: 50385
Cooler #:

No: 2-101322-111056-0024

Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
EB-20221011		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/11/2022 14:45	Equipment Blank
EB-20221012		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/12/2022 10:15	Equipment Blank
FB-20221011		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/11/2022 14:30	Field Blank
FB-20221012		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/12/2022 10:10	Field Blank
GW-SB-BR-02-90-100		Ground Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	SB-BR-02	10/12/2022 15:40	Field Sample
SB-BR-02-13-14		Soil/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (1)	SB-BR-02	10/11/2022 16:10	Field Sample

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples shipped via FedEx		10/13/2022 1200	AAL	10/13/22 1200	
		10/13/22 1400		10/14/22 0100	

ANALYTICAL REPORT

Lab Number:	L2258254
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	11/07/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2258254
Report Date: 11/07/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2258254-01	EB-20221018	WATER	Not Specified	10/18/22 09:55	10/19/22
L2258254-02	FB-20221018	WATER	Not Specified	10/18/22 09:50	10/19/22
L2258254-03	SB-BR-0-19-20	SOIL	Not Specified	10/18/22 12:50	10/19/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2258254
Project Number:	50385	**Report Date:**	11/07/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2258254
Project Number:	50385	**Report Date:**	11/07/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 11/07/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2258254
Report Date: 11/07/22

SAMPLE RESULTS

Lab ID: L2258254-01
Client ID: EB-20221018
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/18/22 09:55
Date Received: 10/19/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.4	4.4	1.1	11/04/22 11:00	11/04/22 14:00	140,1664B	JM
TPH, SGT-HEM	2.95	J	mg/l	4.40	1.36	1.1	11/04/22 14:00	11/04/22 16:02	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2258254
Report Date: 11/07/22

SAMPLE RESULTS

Lab ID: L2258254-02
Client ID: FB-20221018
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/18/22 09:50
Date Received: 10/19/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/04/22 11:00	11/04/22 14:00	140,1664B	JM
TPH, SGT-HEM	1.73	J	mg/l	4.00	1.24	1	11/04/22 14:00	11/04/22 16:02	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2258254
Report Date: 11/07/22

SAMPLE RESULTS

Lab ID: L2258254-03
Client ID: SB-BR-0-19-20
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 10/18/22 12:50
Date Received: 10/19/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.0		%	0.100	NA	1	-	10/22/22 14:01	121,2540G	RI
Oil & Grease, Hem-Grav	383		mg/kg	247	247.	1	10/23/22 15:00	10/23/22 20:30	1,9071B	TL
TPH, HEM-SGT	ND		mg/kg	247	247.	1	10/23/22 15:00	10/23/22 21:00	1,9071B	TL

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2258254
Report Date: 11/07/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1703114-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	10/23/22 15:00	10/23/22 21:00	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1703118-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	10/23/22 15:00	10/23/22 20:30	1,9071B	TL
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1708183-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/04/22 11:00	11/04/22 14:00	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1708185-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	11/04/22 14:00	11/04/22 16:02	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2258254

Report Date: 11/07/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1703114-2								
TPH, HEM-SGT	90		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1703118-2								
Oil & Grease, Hem-Grav	102		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1708183-2								
Oil & Grease, Hem-Grav	100		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1708185-2								
TPH	87		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2258254
Report Date: 11/07/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1703114-4 QC Sample: L2253989-45 Client ID: MS Sample												
TPH, HEM-SGT	750	2000	3280	127		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1703118-4 QC Sample: L2258575-01 Client ID: MS Sample												
Oil & Grease, Hem-Grav	4370	4300	10600	**145**	Q	-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1708183-4 QC Sample: L2256932-03 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	40	37	93		-	-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1708185-4 QC Sample: L2260919-28 Client ID: MS Sample												
TPH	ND	20	16.5	82		-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2258254

Report Date: 11/07/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1702786-1 QC Sample: L2258987-01 Client ID: DUP Sample						
Solids, Total	80.4	79.5	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1703114-3 QC Sample: L2253989-45 Client ID: DUP Sample						
TPH, HEM-SGT	750	890	mg/kg	17		34
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1703118-3 QC Sample: L2258575-01 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	4370	5420	mg/kg	**21**	Q	18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1708183-3 QC Sample: L2256932-02 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1708185-3 QC Sample: L2260919-26 Client ID: DUP Sample						
TPH	ND	1.70J	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2258254
Report Date: 11/07/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2258254-01A	Amber 1000ml HCl preserved	A	NA		3.0	Y	Absent		TPH-1664(28),OG-1664(28)
L2258254-02A	Amber 1000ml HCl preserved	A	NA		3.0	Y	Absent		OG-1664(28),TPH-1664(28)
L2258254-03A	Glass 250ml/8oz unpreserved	A	NA		3.0	Y	Absent		TS(7),TPH-9071(28),OG-9071(28)

Container Comments

L2258254-01A	CONTAINIERS RECEIVED WITH CUSTODY SEAL
L2258254-02A	CONTAINIERS RECEIVED WITH CUSTODY SEAL
L2258254-03A	CONTAINIERS RECEIVED WITH CUSTODY SEAL

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2258254
Project Number:	50385	**Report Date:**	11/07/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2258254
Project Number:	50385	**Report Date:**	11/07/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2258254
Project Number:	50385	**Report Date:**	11/07/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2258254
Project Number:	50385	**Report Date:**	11/07/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2258254

USEPA CLP COC (LAB COPY)
DateShipped: 10/19/2022
CarrierName: Courier
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50385
Cooler #: 1

No: 2-101822-142026-0028
Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20221018		Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/18/2022 09:55	
FB-20221018		Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/18/2022 09:50	
SB-BR-01-19-20		Soil/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (1)	SB-BR-01	10/18/2022 12:50	

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples shipped via Courier	Chi Stilla	10/19/2022 1245	AAL Chi Stilla	10/19/22 1245	
	Chi Stilla	10/19/22 1245		10/20/22 0040	

ANALYTICAL REPORT

Lab Number:	L2259759
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	11/09/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2259759
Report Date: 11/09/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2259759-01	GW-SB-BR-01-120-140	WATER	Not Specified	10/24/22 11:45	10/25/22
L2259759-02	EB-2022124	WATER	Not Specified	10/24/22 12:00	10/25/22
L2259759-03	FB-20221024	WATER	Not Specified	10/24/22 12:10	10/25/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2259759
Project Number:	50385	**Report Date:**	11/09/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2259759
Project Number:	50385	**Report Date:**	11/09/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The samples were received via Alpha Courier in a cooler with ice; however, the ice was melted and the samples were above the required temperature range. Per client authorization of the exceedance, all requested analyses were performed.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 11/09/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2259759
Report Date: 11/09/22

SAMPLE RESULTS

Lab ID: L2259759-01
Client ID: GW-SB-BR-01-120-140
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/24/22 11:45
Date Received: 10/25/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	7.3		mg/l	4.0	4.0	1	11/09/22 10:30	11/09/22 14:15	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	11/09/22 14:00	11/09/22 16:15	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2259759
Report Date: 11/09/22

SAMPLE RESULTS

Lab ID: L2259759-02
Client ID: EB-2022124
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/24/22 12:00
Date Received: 10/25/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/09/22 10:30	11/09/22 14:15	140,1664B	JM
TPH, SGT-HEM	3.23	J	mg/l	4.00	1.24	1	11/09/22 14:00	11/09/22 16:15	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2259759
Report Date: 11/09/22

SAMPLE RESULTS

Lab ID: L2259759-03
Client ID: FB-20221024
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 10/24/22 12:10
Date Received: 10/25/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/09/22 10:30	11/09/22 14:15	140,1664B	JM
TPH, SGT-HEM	1.56	J	mg/l	4.00	1.24	1	11/09/22 14:00	11/09/22 16:15	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2259759
Report Date: 11/09/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1710026-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/09/22 10:30	11/09/22 14:15	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1710028-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	11/09/22 14:00	11/09/22 16:15	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2259759

Report Date: 11/09/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1710026-2								
Oil & Grease, Hem-Grav	88		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1710028-2								
TPH	82		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2259759
Report Date: 11/09/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1710026-4 QC Sample: L2253988-51 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	40	12	**30**	Q	-	-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1710028-4 QC Sample: L2261912-02 Client ID: MS Sample												
TPH	3.37J	20	6.30	**32**	Q	-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2259759

Report Date: 11/09/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1710026-3 QC Sample: L2253988-50 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1710028-3 QC Sample: L2261912-01 Client ID: DUP Sample						
TPH	1.89J	1.77J	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2259759
Report Date: 11/09/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2259759-01A	Amber 1000ml HCl preserved	A	NA		14.8	Y	Absent		OG-1664(28)
L2259759-01B	Amber 1000ml HCl preserved	A	NA		14.8	Y	Absent		TPH-1664(28)
L2259759-02A	Amber 1000ml HCl preserved	A	NA		14.8	Y	Absent		OG-1664(28),TPH-1664(28)
L2259759-03A	Amber 1000ml HCl preserved	A	NA		14.8	Y	Absent		OG-1664(28),TPH-1664(28)

Container Comments

L2259759-01A	Container received with custody seal
L2259759-01B	Container received with custody seal
L2259759-02A	Container received with custody seal
L2259759-03A	Container received with custody seal

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2259759
Project Number:	50385	**Report Date:**	11/09/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2259759
Project Number:	50385	**Report Date:**	11/09/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2259759
Project Number:	50385	**Report Date:**	11/09/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2259759
Report Date: 11/09/22

REFERENCES

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2259759

USEPA CLP COC (LAB COPY)
DateShipped: 10/25/2022
CarrierName: Courier
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50385
Cooler #: 1

No: 2-102522-114432-0032
Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
GW-SB-BR-01-120-140		Ground Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (2)	SB-BR-01	10/24/2022 11:45	
EB-20221024		Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/24/2022 12:00	
FB-20221024		Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (1)	Blank	10/24/2022 12:10	

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Sample picked up by courier	HOR	10-25-2022 1300	AHL	10/25/22 1300	Great
	AHL	10/25/22 1300		10/26/22 0000	

ANALYTICAL REPORT

Lab Number:	L2262601
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	11/28/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2262601
Report Date: 11/28/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2262601-01	EB-20221104	WATER	Not Specified	11/04/22 11:45	11/08/22
L2262601-02	FB-20221104	WATER	Not Specified	11/04/22 11:30	11/08/22
L2262601-03	SB-BR-10-37-38	SOIL	Not Specified	11/04/22 11:50	11/08/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2262601
Project Number:	50385	**Report Date:**	11/28/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2262601
Project Number:	50385	**Report Date:**	11/28/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 11/28/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2262601
Report Date: 11/28/22

SAMPLE RESULTS

Lab ID: L2262601-01
Client ID: EB-20221104
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 11/04/22 11:45
Date Received: 11/08/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/23/22 11:00	11/23/22 14:21	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	11/23/22 15:00	11/23/22 16:22	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2262601
Report Date: 11/28/22

SAMPLE RESULTS

Lab ID: L2262601-02
Client ID: FB-20221104
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 11/04/22 11:30
Date Received: 11/08/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/23/22 11:00	11/23/22 14:21	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	11/23/22 15:00	11/23/22 16:22	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2262601
Report Date: 11/28/22

SAMPLE RESULTS

Lab ID: L2262601-03
Client ID: SB-BR-10-37-38
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 11/04/22 11:50
Date Received: 11/08/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.9		%	0.100	NA	1	-	11/13/22 18:51	121,2540G	MF
Oil & Grease, Hem-Grav	ND		mg/kg	267	267.	1	11/21/22 09:45	11/21/22 16:00	1,9071B	JO
TPH, HEM-SGT	ND		mg/kg	267	267.	1	11/21/22 09:45	11/23/22 15:15	1,9071B	JO

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2262601
Report Date: 11/28/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1714802-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	11/21/22 09:45	11/21/22 16:00	1,9071B	JO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1715781-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	11/23/22 11:00	11/23/22 14:21	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1715784-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	11/23/22 15:00	11/23/22 16:22	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1715964-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	11/21/22 09:45	11/23/22 15:15	1,9071B	JO

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2262601

Report Date: 11/28/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1714802-2								
Oil & Grease, Hem-Grav	88		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1715781-2								
Oil & Grease, Hem-Grav	86		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1715784-2								
TPH	108		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1715964-2								
TPH, HEM-SGT	76		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2262601
Report Date: 11/28/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1714802-4 QC Sample: L2261308-13 Client ID: MS Sample												
Oil & Grease, Hem-Grav	1170	4000	5150	100		-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1715781-4 QC Sample: L2262601-02 Client ID: FB-20221104												
Oil & Grease, Hem-Grav	ND	41.2	32	78		-	-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1715784-4 QC Sample: L2262601-02 Client ID: FB-20221104												
TPH	ND	21.1	16.8	80		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1715964-4 QC Sample: L2260920-33 Client ID: MS Sample												
TPH, HEM-SGT	1800	2000	2600	**40**	Q	-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2262601

Report Date: 11/28/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1711782-1 QC Sample: L2262362-01 Client ID: DUP Sample						
Solids, Total	84.6	85.0	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1714802-3 QC Sample: L2261308-13 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	1170	1120	mg/kg	4		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1715781-3 QC Sample: L2262601-01 Client ID: EB-20221104						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1715784-3 QC Sample: L2262601-01 Client ID: EB-20221104						
TPH, SGT-HEM	ND	1.35J	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1715964-3 QC Sample: L2260920-33 Client ID: DUP Sample						
TPH, HEM-SGT	1800	1460	mg/kg	21		34

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2262601
Report Date: 11/28/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2262601-01A	Amber 1000ml HCl preserved	A	NA		4.7	Y	Absent		OG-1664(28),TPH-1664(28)
L2262601-01B	Amber 1000ml HCl preserved	A	NA		4.7	Y	Absent		OG-1664(28),TPH-1664(28)
L2262601-02A	Amber 1000ml HCl preserved	A	NA		4.7	Y	Absent		TPH-1664(28),OG-1664(28)
L2262601-02B	Amber 1000ml HCl preserved	A	NA		4.7	Y	Absent		TPH-1664(28),OG-1664(28)
L2262601-03A	Glass 250ml/8oz unpreserved	A	NA		4.7	Y	Absent		TPH-9071(28),TS(7),OG-9071(28)

Container Comments

L2262601-03A CUSTODY SEAL PRESENT/INTACT ON CONTAINER

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2262601
Project Number:	50385	**Report Date:**	11/28/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2262601
Project Number:	50385	**Report Date:**	11/28/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2262601
Project Number:	50385	**Report Date:**	11/28/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2262601
Project Number:	50385	**Report Date:**	11/28/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2262601

USEPA CLP COC (LAB COPY)

DateShipped: 11/8/2022
CarrierName: Courier
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50385
Cooler #: 1

No: 2-110822-082210-0040

Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20221104		Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (2)	Blank	11/04/2022 11:45	
~~FB-20221004~~		~~Water/ HDR OBG JV~~	~~Grab~~	~~TPH, OG(10)~~	~~A (HCl) (1)~~	~~Blank~~	~~11/04/2022 12:00~~	
FB-20221104		Water/ HDR OBG JV	Grab	TPH, OG(10)	A (HCl) (2)	Blank	11/04/2022 11:30	
SB-BR-10-37-38		Soil/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (1)	SB-BR-10	11/04/2022 11:50	

Special Instructions: Sample FB-20221004 added to CoC by m.steake, please disregard

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples sent via Courier	HDR	11/8/2022 1800	APL	11/8/22 1300	Great
				11/9/22 0010	

ANALYTICAL REPORT

Lab Number:	L2264816
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	12/05/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2264816
Report Date: 12/05/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2264816-01	EB-20221115	WATER	Not Specified	11/15/22 12:30	11/17/22
L2264816-02	FB-20221115	WATER	Not Specified	11/15/22 12:35	11/17/22
L2264816-03	GW-SB-BR-10-135-140	WATER	Not Specified	11/15/22 08:15	11/17/22
L2264816-04	GW-SB-BR-10-135-140-1	WATER	Not Specified	11/15/22 08:20	11/17/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2264816
Project Number:	50385	**Report Date:**	12/05/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2264816
Project Number:	50385	**Report Date:**	12/05/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 12/05/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2264816
Report Date: 12/05/22

SAMPLE RESULTS

Lab ID: L2264816-01
Client ID: EB-20221115
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 11/15/22 12:30
Date Received: 11/17/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/05/22 10:00	12/05/22 13:27	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/05/22 12:00	12/05/22 14:57	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2264816
Report Date: 12/05/22

SAMPLE RESULTS

Lab ID: L2264816-02
Client ID: FB-20221115
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 11/15/22 12:35
Date Received: 11/17/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/05/22 10:00	12/05/22 13:27	140,1664B	JM
TPH, SGT-HEM	1.76	J	mg/l	4.00	1.24	1	12/05/22 12:00	12/05/22 14:57	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2264816
Report Date: 12/05/22

SAMPLE RESULTS

Lab ID: L2264816-03
Client ID: GW-SB-BR-10-135-140
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 11/15/22 08:15
Date Received: 11/17/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	11.		mg/l	4.0	4.0	1	12/05/22 10:00	12/05/22 13:27	140,1664B	JM
TPH, SGT-HEM	4.80		mg/l	4.00	1.24	1	12/05/22 12:00	12/05/22 14:57	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2264816
Report Date: 12/05/22

SAMPLE RESULTS

Lab ID: L2264816-04
Client ID: GW-SB-BR-10-135-140-1
Sample Location: Not Specified

Date Collected: 11/15/22 08:20
Date Received: 11/17/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	8.5		mg/l	4.0	4.0	1	12/05/22 10:00	12/05/22 13:27	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/05/22 12:00	12/05/22 14:57	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2264816
Report Date: 12/05/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1719361-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/05/22 12:00	12/05/22 14:57	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1719362-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/05/22 10:00	12/05/22 13:27	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2264816

Report Date: 12/05/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1719361-2								
TPH	106		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1719362-2								
Oil & Grease, Hem-Grav	93		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2264816
Report Date: 12/05/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1719361-4 QC Sample: L2267155-02 Client ID: MS Sample												
TPH	1.94J	20.4	4.18	**20**	Q	-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1719362-4 QC Sample: L2266536-11 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	40.8	12	**29**	Q	-	-		78-114	-		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2264816

Report Date: 12/05/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1719361-3 QC Sample: L2267155-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1719362-3 QC Sample: L2266536-10 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2264816
Report Date: 12/05/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2264816-01A	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		OG-1664(28)
L2264816-01B	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		TPH-1664(28)
L2264816-02A	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		OG-1664(28)
L2264816-02B	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		TPH-1664(28)
L2264816-03A	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		OG-1664(28)
L2264816-03B	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		TPH-1664(28)
L2264816-04A	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		OG-1664(28)
L2264816-04B	Amber 1000ml HCl preserved	A	NA		2.2	Y	Absent		TPH-1664(28)

Container Comments

L2264816-01A	Container Seal Present/Intact
L2264816-02A	Container Seal Present/Intact
L2264816-03A	Container Seal Present/Intact
L2264816-03B	Container Seal Present/Intact
L2264816-04A	Container Seal Present/Intact
L2264816-04B	Container Seal Present/Intact

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2264816
Project Number:	50385	**Report Date:**	12/05/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2264816
Project Number:	50385	**Report Date:**	12/05/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2264816
Project Number:	50385	**Report Date:**	12/05/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2264816
Project Number:	50385	**Report Date:**	12/05/22

REFERENCES

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

USEPA CLP COC (LAB COPY)

DateShipped: 11/16/2022

CarrierName: Courier

AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50385

Cooler #: 1

L2264816

No: 2-111622-152928-0052

Lab: Alpha Analytical

Lab Contact: Nadine Yakes

Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20221115		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	Blank	11/15/2022 12:30	
FB-20221115		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	Blank	11/15/2022 12:35	
GW-SB-BR-10-135-140		Ground Water/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	SB-BR-10	11/15/2022 08:15	
GW-SB-BR-10-135-140-1		Ground Water/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	SB-BR-10	11/15/2022 08:20	

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples shipped via courier	HDR	11/17/22 1630	AAL	11/17/22 1030	Good
	Syr Sec Stg	11/17/22 1159	Syr Sec Stg	11/17/22 1159	Good
	Syr Sec Stg	11/17/22 1159		11/18/22 0105	

ANALYTICAL REPORT

Lab Number:	L2269028
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	12/27/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2269028
Report Date: 12/27/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2269028-01	EB-20221206	WATER	Not Specified	12/06/22 12:00	12/08/22
L2269028-02	FB-20221206	WATER	Not Specified	12/06/22 12:00	12/08/22
L2269028-03	SB-BR-11-43-44	SOIL	Not Specified	12/06/22 12:00	12/08/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2269028
Project Number:	50385	**Report Date:**	12/27/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2269028
Project Number:	50385	**Report Date:**	12/27/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

TPH, SGT-HEM

L2269028-02: The Field Blank has a concentration above the reporting limit. Since the associated sample concentrations are either greater than 10x the blank concentration or non-detect to the RL for this target analyte, no corrective action is required.

Oil & Grease, Hem-Grav

L2269028-02: The Field Blank has a concentration above the reporting limit. Since the associated sample concentrations are either greater than 10x the blank concentration or non-detect to the RL for this target analyte, no corrective action is required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 12/27/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2269028
Report Date: 12/27/22

SAMPLE RESULTS

Lab ID: L2269028-01
Client ID: EB-20221206
Sample Location: Not Specified

Date Collected: 12/06/22 12:00
Date Received: 12/08/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/26/22 14:00	12/26/22 18:45	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/27/22 10:00	12/27/22 10:47	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2269028
Report Date: 12/27/22

SAMPLE RESULTS

Lab ID: L2269028-02
Client ID: FB-20221206
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 12/06/22 12:00
Date Received: 12/08/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	4.5		mg/l	4.0	4.0	1	12/26/22 14:00	12/26/22 18:45	140,1664B	JM
TPH, SGT-HEM	5.94		mg/l	4.00	1.24	1	12/27/22 10:00	12/27/22 10:47	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2269028
Report Date: 12/27/22

SAMPLE RESULTS

Lab ID: L2269028-03
Client ID: SB-BR-11-43-44
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 12/06/22 12:00
Date Received: 12/08/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.4		%	0.100	NA	1	-	12/15/22 14:02	121,2540G	GG
Oil & Grease, Hem-Grav	ND		mg/kg	252	252.	1	12/14/22 12:30	12/14/22 18:00	1,9071B	JRO
TPH, HEM-SGT	ND		mg/kg	252	252.	1	12/14/22 12:30	12/14/22 20:00	1,9071B	JRO

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2269028
Report Date: 12/27/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1723907-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	12/14/22 12:30	12/14/22 20:00	1,9071B	JRO
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1723909-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	12/14/22 12:30	12/14/22 18:00	1,9071B	JRO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1727463-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/26/22 14:00	12/26/22 18:45	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1727464-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/27/22 10:00	12/27/22 10:47	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2269028

Report Date: 12/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1723907-2								
TPH, HEM-SGT	98		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1723909-2								
Oil & Grease, Hem-Grav	107		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1727463-2								
Oil & Grease, Hem-Grav	90		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1727464-2								
TPH	100		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2269028
Report Date: 12/27/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1723907-4 QC Sample: L2269028-03 Client ID: SB-BR-11-43-44												
TPH, HEM-SGT	ND	2520	2230	88		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1723909-4 QC Sample: L2269028-03 Client ID: SB-BR-11-43-44												
Oil & Grease, Hem-Grav	ND	5040	5430	108		-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1727463-4 QC Sample: L2266536-61 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	38.8	26	**66**	Q	-	-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1727464-4 QC Sample: L2266536-61 Client ID: MS Sample												
TPH	2.22J	19.4	12.9	66		-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2269028

Report Date: 12/27/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1723823-1 QC Sample: L2270402-02 Client ID: DUP Sample						
Solids, Total	88.7	89.0	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1723907-3 QC Sample: L2269028-03 Client ID: SB-BR-11-43-44						
TPH, HEM-SGT	ND	ND	mg/kg	NC		34
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1723909-3 QC Sample: L2269028-03 Client ID: SB-BR-11-43-44						
Oil & Grease, Hem-Grav	ND	ND	mg/kg	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1727463-3 QC Sample: L2266536-60 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1727464-3 QC Sample: L2266536-60 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2269028
Report Date: 12/27/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2269028-01A	Amber 1000ml HCl preserved	A	NA		2.4	Y	Absent		OG-1664(28)
L2269028-01B	Amber 1000ml HCl preserved	A	NA		2.4	Y	Absent		TPH-1664(28)
L2269028-02A	Amber 1000ml HCl preserved	A	NA		2.4	Y	Absent		OG-1664(28)
L2269028-02B	Amber 1000ml HCl preserved	A	NA		2.4	Y	Absent		TPH-1664(28)
L2269028-03A	Glass 250ml/8oz unpreserved	A	NA		2.4	Y	Absent		TPH-9071(28),TS(7),OG-9071(28)

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2269028
Project Number:	50385	**Report Date:**	12/27/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2269028
Project Number:	50385	**Report Date:**	12/27/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2269028
Project Number:	50385	**Report Date:**	12/27/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2269028
Project Number:	50385	**Report Date:**	12/27/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

USEPA CLP COC (LAB COPY)

DateShipped: 12/7/2022
CarrierName:
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50385
Cooler #: 1

L2269029

No: 2-120722-152100-0068

Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20221206		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	Blank	12/06/2022 12:00	
FB-20221206		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	Blank	12/06/2022 12:15	
~~SB-BR-11-43-44~~		~~Soil/ HDR OBG JV~~	~~Grab~~	~~TPH, OG(10)~~	~~A (4 C) (1)~~	~~SB-BR-11~~	~~12/06/2022 15:00~~	

Shipment for Case Complete? N

Special Instructions:

Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples handed to courier	HDR	12-8-2022 1230	AAL	12/08/22 1230	
	CL Still	12/08/22 1230		12/9/22 0830	

ANALYTICAL REPORT

Lab Number:	L2270179
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	12/30/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2270179
Report Date: 12/30/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2270179-01	EB-20221212	WATER	Not Specified	12/12/22 14:15	12/14/22
L2270179-02	FB-20221212	WATER	Not Specified	12/12/22 14:00	12/14/22
L2270179-03	GW-SB-BR-11-120-140	WATER	Not Specified	12/12/22 16:00	12/14/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2270179
Project Number:	50385	**Report Date:**	12/30/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2270179
Project Number:	50385	**Report Date:**	12/30/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 12/30/22

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2270179
Report Date: 12/30/22

SAMPLE RESULTS

Lab ID: L2270179-01
Client ID: EB-20221212
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 12/12/22 14:15
Date Received: 12/14/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/30/22 10:00	12/30/22 13:25	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/30/22 13:00	12/30/22 14:47	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2270179
Report Date: 12/30/22

SAMPLE RESULTS

Lab ID: L2270179-02
Client ID: FB-20221212
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 12/12/22 14:00
Date Received: 12/14/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/30/22 10:00	12/30/22 13:25	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/30/22 13:00	12/30/22 14:47	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2270179
Report Date: 12/30/22

SAMPLE RESULTS

Lab ID: L2270179-03
Client ID: GW-SB-BR-11-120-140
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 12/12/22 16:00
Date Received: 12/14/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/30/22 10:00	12/30/22 13:25	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	12/30/22 13:00	12/30/22 14:47	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2270179
Report Date: 12/30/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1728832-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	12/30/22 10:00	12/30/22 13:25	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1728833-1										
TPH, SGT-HEM	1.80	J	mg/l	4.00	1.24	1	12/30/22 13:00	12/30/22 14:47	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2270179

Report Date: 12/30/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1728832-2								
Oil & Grease, Hem-Grav	99		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1728833-2								
TPH	104		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2270179
Report Date: 12/30/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1728832-4 QC Sample: L2269873-02 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	38.1	32	85		-	-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1728833-4 QC Sample: L2266536-69 Client ID: MS Sample												
TPH	1.24J	19	15.1	80		-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2270179

Report Date: 12/30/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1728832-3 QC Sample: L2269873-01 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1728833-3 QC Sample: L2266536-68 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2270179
Report Date: 12/30/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2270179-01A	Amber 1000ml HCl preserved	A	NA		3.6	Y	Absent		TPH-1664(28),OG-1664(28)
L2270179-02A	Amber 1000ml HCl preserved	A	NA		3.6	Y	Absent		OG-1664(28),TPH-1664(28)
L2270179-03A	Amber 1000ml HCl preserved	A	NA		3.6	Y	Absent		OG-1664(28)
L2270179-03B	Amber 1000ml HCl preserved	A	NA		3.6	Y	Absent		TPH-1664(28)

Container Comments

L2270179-01A	Custody Seal On Bottle Received Intact
L2270179-02A	Custody Seal On Bottle Received Intact
L2270179-03A	Custody Seal On Bottle Received Intact
L2270179-03B	Custody Seal On Bottle Received Intact

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2270179
Project Number:	50385	**Report Date:**	12/30/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2270179
Project Number:	50385	**Report Date:**	12/30/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2270179
Project Number:	50385	**Report Date:**	12/30/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2270179
Project Number:	50385	**Report Date:**	12/30/22

REFERENCES

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2270179

USEPA CLP COC (LAB COPY)

DateShipped: 12/13/2022

CarrierName: Courier

AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50385

Cooler #: 1

No: 2-121322-090435-0070

Lab: Alpha Analytical

Lab Contact: Nadine Yakes

Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20221212		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (1)	Blank	12/12/2022 14:15	
FB-20221212		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (1)	Blank	12/12/2022 14:00	
GW-SB-BR-11-120-140		Ground Water/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	SB-BR-11	12/12/2022 16:00	

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Special Instructions:

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	HDR	12-14-2022 1050	TAL CA	12/14/22 1050	
	CA	12/14/22 1050		12/15/22 0020	

ANALYTICAL REPORT

Lab Number:	L2271499
Client:	HDR Engineering, Inc. 50 Tice Boulevard Suite 210 Woodcliff Lake, NJ 07677
ATTN:	John Ifkovits
Phone:	(201) 335-9346
Project Name:	GCL TREATING INC, NY
Project Number:	50385
Report Date:	01/04/23

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2271499
Report Date: 01/04/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2271499-01	EB-20221215	WATER	Not Specified	12/15/22 12:00	12/20/22
L2271499-02	FB-20221215	WATER	Not Specified	12/15/22 12:15	12/20/22
L2271499-03	SB-BR-05-38-39	SOIL	Not Specified	12/15/22 12:30	12/20/22

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2271499
Project Number:	50385	**Report Date:**	01/04/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2271499
Report Date: 01/04/23

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Oil & Grease, Hem-Grav

The WG1728213-4 MS recovery, performed on L2271499-03, is outside the acceptance criteria for oil & grease, hem-grav (449%); however, the associated LCS recovery is within criteria. No further action was taken.

The WG1728213-3 Laboratory Duplicate RPD for oil & grease, hem-grav (37%), performed on L2271499-03, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

TPH, HEM-SGT

The WG1728214-4 MS recovery, performed on L2271499-03, is outside the acceptance criteria for tph, hem-sgt (466%); however, the associated LCS recovery is within criteria. No further action was taken.

The WG1728214-3 Laboratory Duplicate RPD for tph, hem-sgt (40%), performed on L2271499-03, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 01/04/23

INORGANICS
&
MISCELLANEOUS

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2271499
Report Date: 01/04/23

SAMPLE RESULTS

Lab ID: L2271499-01
Client ID: EB-20221215
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 12/15/22 12:00
Date Received: 12/20/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	01/03/23 14:00	01/03/23 18:00	140,1664B	JM
TPH, SGT-HEM	1.40	J	mg/l	4.00	1.24	1	01/03/23 18:00	01/03/23 19:30	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2271499
Report Date: 01/04/23

SAMPLE RESULTS

Lab ID: L2271499-02
Client ID: FB-20221215
Sample Location: Not Specified
Sample Depth:
Matrix: Water

Date Collected: 12/15/22 12:15
Date Received: 12/20/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	01/03/23 14:00	01/03/23 18:00	140,1664B	JM
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	01/03/23 18:00	01/03/23 19:30	140,1664B	JM

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2271499
Report Date: 01/04/23

SAMPLE RESULTS

Lab ID: L2271499-03
Client ID: SB-BR-05-38-39
Sample Location: Not Specified
Sample Depth:
Matrix: Soil

Date Collected: 12/15/22 12:30
Date Received: 12/20/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.2		%	0.100	NA	1	-	12/22/22 12:06	121,2540G	RI
Oil & Grease, Hem-Grav	6530		mg/kg	224	224.	1	12/28/22 13:00	12/29/22 18:00	1,9071B	JRO
TPH, HEM-SGT	2470		mg/kg	224	224.	1	12/28/22 13:00	12/30/22 17:15	1,9071B	JRO

Project Name: GCL TREATING INC, NY
Project Number: 50385
Lab Number: L2271499
Report Date: 01/04/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1728213-1										
Oil & Grease, Hem-Grav	ND		mg/kg	200	200.	1	12/28/22 13:00	12/29/22 18:00	1,9071B	JRO
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1728214-1										
TPH, HEM-SGT	ND		mg/kg	200	200.	1	12/28/22 13:00	12/30/22 17:15	1,9071B	JRO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1729514-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	01/03/23 14:00	01/03/23 18:00	140,1664B	JM
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1729515-1										
TPH, SGT-HEM	ND		mg/l	4.00	1.24	1	01/03/23 18:00	01/03/23 19:30	140,1664B	JM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2271499

Report Date: 01/04/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1728213-2								
Oil & Grease, Hem-Grav	87		-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1728214-2								
TPH, HEM-SGT	70		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1729514-2								
Oil & Grease, Hem-Grav	109		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1729515-2								
TPH	92		-		64-132	-		34

Matrix Spike Analysis
Batch Quality Control

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2271499
Report Date: 01/04/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1728213-4 QC Sample: L2271499-03 Client ID: SB-BR-05-38-39												
Oil & Grease, Hem-Grav	6530	4130	25100	**449**	Q	-	-		79-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1728214-4 QC Sample: L2271499-03 Client ID: SB-BR-05-38-39												
TPH, HEM-SGT	2470	2070	12100	**466**	Q	-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1729514-4 QC Sample: L2272750-02 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	40	32	81		-	-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1729515-4 QC Sample: L2272750-02 Client ID: MS Sample												
TPH	1.37J	20	20.9	104		-	-		64-132	-		34

Lab Duplicate Analysis

Batch Quality Control

Project Name: GCL TREATING INC, NY

Project Number: 50385

Lab Number: L2271499

Report Date: 01/04/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1726567-1 QC Sample: L2271609-06 Client ID: DUP Sample						
Solids, Total	38.3	37.5	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1728213-3 QC Sample: L2271499-03 Client ID: SB-BR-05-38-39						
Oil & Grease, Hem-Grav	6530	9450	mg/kg	**37**	Q	18
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1728214-3 QC Sample: L2271499-03 Client ID: SB-BR-05-38-39						
TPH, HEM-SGT	2470	3700	mg/kg	**40**	Q	34
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1729514-3 QC Sample: L2272750-01 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1729515-3 QC Sample: L2272750-01 Client ID: DUP Sample						
TPH	ND	1.71J	mg/l	NC		34

Project Name: GCL TREATING INC, NY
Project Number: 50385

Lab Number: L2271499
Report Date: 01/04/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2271499-01A	Amber 1000ml HCl preserved	A	NA		2.0	Y	Absent		OG-1664(28),TPH-1664(28)
L2271499-02A	Amber 1000ml HCl preserved	A	NA		2.0	Y	Absent		OG-1664(28),TPH-1664(28)
L2271499-03A	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		TPH-9071(28),TS(7),OG-9071(28)

Container Comments

L2271499-01A	Container seal present/intact
L2271499-02A	Container seal present/intact
L2271499-03A	Container seal present/intact

*Values in parentheses indicate holding time in days

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2271499
Project Number:	50385	**Report Date:**	01/04/23

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2271499
Project Number:	50385	**Report Date:**	01/04/23

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2271499
Project Number:	50385	**Report Date:**	01/04/23

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	GCL TREATING INC, NY	**Lab Number:**	L2271499
Project Number:	50385	**Report Date:**	01/04/23

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2271499

USEPA CLP COC (LAB COPY)
DateShipped: 12/13/2022
CarrierName: Courier
AirbillNo:

CHAIN OF CUSTODY RECORD

Case #: 50385
Cooler #: 1

No: 2-122022-073723-0073
Lab: Alpha Analytical
Lab Contact: Nadine Yakes
Lab Phone: 508-898-9220

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20221215		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	Blank	12/15/2022 12:00	
FB-20221215		Blank/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (2)	Blank	12/15/2022 12:15	
SB-BR-05-38-39		Soil/ HDR OBG JV	Grab	TPH, OG(10)	A (4 C) (1)	SB-BR-05	12/15/2022 12:30	

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TPH, OG=TPH, OG

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples picked up by courier	HDR	12-20-2022 1300	AAL	12/20/22 1300	
		12/20/22 1619		12/20/22 1619	
		12/20/22 1619		12/21/22 0030	

APPENDIX M

HDR

FIELD QUALITY CONTROL AUDIT

Report No. 001 Date: 09/21/22 Contract No.: # W912DQ18D3010;
Task Order No.: # W912DQ21F3031

Project Name: GCL Tie and Treating, Inc. Superfund Site
Village of Sidney, NY
Pre-Design Investigation Including Steam Injection Pilot Study and
Remedial Design Support OU3 Source Area Non-Aqueous Phase Liquid Interim Remedy

Weather: Cloudy (fog in morning), w/ on/off lt breeze Precipitation: None Temp.: Min. 50 Max. 65

1. Personnel On-Site and Area of Responsibility:

NAME	:	ORGANIZATION	:	DESCRIPTION WORK
Matthew Keaveney		**HDR**		**Project Geologist / PDI lead**
Vincent Farruggia		**Ramboll**		**Geologist**
Lee Penrod		**Parratt-Wolff**		**Crew Chief-Driller**
Joel Davis		**Parratt-Wolff**		**Driller**
Corey Olney		**Parratt-Wolff**		**Helper**

2. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors).

M Keaveney of HDR and V Faffaggia of Ramboll were overseeing the drilling activities conducted by Parrott-Wolff (PW).
PW was using a sonic rig outfitted with a coring unit to be able advance bedrock borings when bedrock is encountered.
They were working on SB-BR-LIF-16 when I was on site.
They used a small diameter pump to collect groundwater from the required sample depth. Dedicated tubing was used for each.sample location. The pump was deconned between uses. Samples were collected in accordance with the QAPP and the samples were placed in iced coolers for storage on site until they were shipped out to the analytical laboratories.
The sonic rig samples were laid out on the ground in the area of the boring so they can be logged by the geologists.

3. Project Documents on-site: SAP, HASP, EPA Procedures Manual, Other: (list)

Required project documents available in the field trailer and project vehicle.

4. Health and Safety Activities: Pre-Work Briefing Form Present (Yes/No) **Yes**

Tailgate meeting in the morning discussed slip, trip, fall hazards and the colder temperatures coming.

List PPE used on site: Crews (Drilling crew and HDR/Ramboll crew) used Level D PPE for drilling and sample collection. (hard hats, safety glasses, and safety boots)

Disposable nitrile gloves were worn when collecting samples

5. Field Equipment and Calibration Logs:

EQUIPMENT	CALIBRATION LOGS
Air monitoring instrumentation bump tested/calibrated daily	Calibration logs on site

6. –Groundwater Sampling :

Comments:

While I was on site a core was retrieved from the 110-120 ft bgs. Then a groundwater sample was collected from the boring at a depth of ~120 ft for VOC analysis. The used a small submersible pump and dedicatedd tubing to collect the sample. They purged 3 volumes of the tubing prior to sample collection.

A total of three groundwater samples were collected today (GW-SB-BR-LIF16-83-110, GW-SB-BR-LIF16-110-120 & GW-SB-BR-LIF16-120-130). GW-SB-BR-LIF16-110-120 was collected when I was on site. The samples were analyzed for VOCs and SVOCs. A field duplicate sample (VOCs & SVOCs) was also collected from the 110-120 ft depth.

7. Sample Collection

Verify Conformance with HDR SAP: (Yes/No): Yes

The appropriate number and size sample containers were filled as required by the laboratories for analysis.

Three groundwater samples were collected from SB-BR-LIF16 today.

Field Quality Control Samples Collected: (check where appropriate)

Field quality control samples were collected on this day

An Equipment Blank was performed and sampled for VOCs & SVOCs (EB-20220921).

A Field Blank was performed and sampled for VOCs & SVOCs (FB-20220921).

A Trip Blank set of vials for VOC analysis was placed in the cooler containing the VOC samples (TB-20220921).

A field duplicate groundwater sample was collected for VOCs & SVOCs from SB-BR-LIF16 (GW-SB-BR-LIF16-110-120-1)

8. Custody Procedures: Review Chain of Custody, sample packaging, appropriate signatures, document retention (verify conformance with HDR SAP)

All custody procedures are in order and organized. Crews using SCRIBE to prepare the COCs and they are tracking the samples for shipment and logging in at the analytical labs
They are keeping track of the samples that are completed and the remaining samples required.

9. Decontamination Procedures (list activities)

Equipment decon was performed on the pump used to collect the groundwater samples from the boring.
New, dedicated tubing was attached to the pump for sample collection (did not require deconning).

10. Corrective Actions: (list corrective actions taken)

None required

11. Field Logbook and Sample Field Sheets (verify conformance with HDR SAP and observation log above)

Field logs/sheets are being kept up properly. Field log book is very well organized and has a lot of detail in it.

12. Remarks: (Instructions received or given. Conflict(s) in SAP or HASP)

Crew very well prepared and knowledgeable of site and objectives of the investigation activities.

I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the SAP and HASP, to the best of my knowledge, except as may be noted above.

John Guzewich **09/21/22**

Name: **Date:**

HDR Field Auditor