Honeywell

Site Characterization Report
Former Oak Materials Fluorglas Division–John Street

Village of Hoosick Falls, Rensselaer County, New York

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REPORT

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Village of Hoosick Falls
Rensselaer County, New York

15 July 2019

NYSDEC Site Number 442049

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I, Chris W. Wenczel, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Final Site Characterization Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

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Date: 15 July 2019

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ACRONYMS AND ABBREVIATIONS

1,1-DCE	1,1-Dichloroethene
1,1,1-TCA	1,1,1-Trichloroethane
amsl	above mean sea level
APS	Advanced Profiling System
ASP	Analytical Services Protocol
AOPCs	Areas of Potential Concern
bgs	below ground surface
°C	Degrees Celsius
CAMP	Community Air Monitoring Plan
cis-1,2-DCE	cis-1,2-Dichloroethene
COPCs	Compounds of Potential Concern
DER	Division of Environmental Remediation
DO	Dissolved Oxygen
DQO	Data Quality Objective
DSNY	Dig Safely New York
DUSR	Data Usability Summary Report
EDS	Electronic Data Summary
ELAP	Environmental Laboratory Approval Program
ERM	ERM Consulting and Engineering, Inc.
FS	Feasibility Study
FSAP	Field Sampling and Analysis Plan
GAC	Granular Activated Carbon
gpd	gallons per day
gpm	gallons per minute
GPS	Global Positioning System
HDPE	High Density Polyethylene
IRM	Interim Remedial Measure
IDW	Investigation-Derived Waste
IHWDS	Inactive Hazardous Waste Disposal Site
Ik	Inferred hydraulic conductivity
MtBE	Methyl tert-butyl ether
ng/g	Nanograms per gram (parts per billion)
ng/L	Nanograms per liter (parts per trillion)
NJDEP	New Jersey Department of Environmental Protection
NPL	National Priorities List
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSGS	New York State Geological Survey
ORP	Oxidation-Reduction Potential
PARCC	Precision, Accuracy, Reproducibility, Completeness, and Comparability
PDI	Pre-Design Investigation
PCBs	Polychlorinated biphenyls
PFAS	Per- and Polyfluoroalkyl Substances
PFHpA	Perfluoroheptanoic acid

PFHxA	Perfluorohexanoic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PID	Photoionization detector
ppb	Parts per billion
PPE	Personal Protective Equipment
ppm	Parts per million
ppt	Parts per trillion
PTFE	Polytetrafluoroethylene
QA/QC	Quality Assurance / Quality Control
QAPP	Quality Assurance Project Plan
RI	Remedial Investigation
SC	Site Characterization
SCGs	Standards, Criteria and Guidance
SGVs	Sediment Guidance Values
SCOs	Soil Cleanup Objectives
SOP	Standard Operating Procedure
SpC	Specific conductance
STARS-#1	Spill Technology and Remediation Series Memorandum Number One
SVOCs	Semi-volatile Organic Compounds
TAL	Target Analyte List
TCL	Target Compound List
TOGS	Technical Operations Guidance Series
TCE	Trichloroethene
µg/kg	Micrograms per Kilogram (parts per billion)
µg/L	Micrograms per Liter (parts per billion)
USEPA	United States Environmental Protection Agency
VLF	Very Low Frequency
VOCs	Volatile Organic Compounds
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

Honeywell International Inc. (Honeywell) entered into an Order on Consent and Administrative Settlement with the New York State Department of Environmental Conservation (NYSDEC) dated 3 June 2016 (the Order; Index Number CO 4-20160415-79). The Order required the performance of a Site Characterization (SC) at the Former Oak Materials Fluorglas Division - John Street (the Site). The Site location is shown in Figure 1. In July 2017, the Site was added to the Registry of Inactive Hazardous Waste Sites (the Registry) as a Class 2 site (Site No. 442049).

The SC Report describes the field efforts and associated analytical results for environmental media samples, and provides the basis for additional investigations to be proposed in a separate Remedial Investigation Work Plan/Field Sampling and Analysis Plan to advance the environmental characterization of these properties. These additional investigations would be intended to complete the SC and fill certain data gaps at the Site to complete a Remedial Investigation (RI).

1.1 PURPOSE AND OBJECTIVES

The work presented in this report is based on the following NYSDEC-approved work plans:

- Final Site Characterization Field Sampling and Analysis Plan – Phase 1 dated 20 July 2016 (ERM, 2016a);
- Memorandum on Additional Phase I Site Characterization dated 19 October 2016 (ERM, 2016b).

As outlined in NYSDEC's Technical Guidance on Site Investigation and Remediation (NYSDEC, 2010a), the SC was performed to meet the following goals:

- Perform a Records Search to identify and review documentation on site histories; and
- If necessary, perform field characterization to identify potentially-impacted areas.

A SC Field Sampling and Analysis Plan (FSAP) was prepared and approved by NYSDEC and outlined procedures to collect data to support project goals (ERM, 2016a).

1.2 DESCRIPTION AND HISTORY

The Site is located in the Village of Hoosick Falls in an area of mixed commercial and residential use, bounded on the west by Lyman Street, on the north by John Street, on the west by Woods Brook, and on the south by a residential property. Per County tax records, the property is zoned commercial-vacant. A three-story brick, mortar and wood building was constructed in the 1890s and demolished in 2012; there are currently no structures on the property. The property is generally flat, gently sloping northward, covered with crushed stone and fenced to prevent unauthorized access.

The past uses of the property were commercial and industrial. There are currently no plans for future property use.

2.0 PROJECT BACKGROUND

2.1 PHYSICAL CONDITIONS

2.1.1 Soil

Native soil in the area, mapped by the New York State Geological Survey (NYSGS), is shown primarily as alluvium and lacustrine silt and clay (Caldwell and Dineen, 1987). Localized areas of soil include coarser material associated with channel sand and glacial outwash sand and gravel (Caldwell and Dineen, 1987).

Surface soil at the Site is primarily fill material from grade to between eight and 17 feet below grade. Underlying native soil consists predominantly of Hamlin silt loam (USDA, 2017).

2.1.2 Geologic Setting

Area-wide unconsolidated geologic material above bedrock (collectively referred to as overburden) typically consists of the following:

- Fine-grained alluvium (predominantly silt and clay) deposited in the Hoosic River valley.
- Coarse-grained alluvium, consisting predominantly of sand and gravel, also deposited in the Hoosic River valley.
- Glacio-lacustrine silt and clay.
- Glacial outwash (predominantly sand and gravel) deposited by glacial meltwaters.
- Glacial till, which is typically a dense, compact, poorly-sorted mixture of silt, clay, sand, gravel, cobbles, and boulders deposited by glaciers.

Bedrock in the area consists predominantly of dark gray to black slate mapped by the NYSGS as the Walloomsac Formation (Potter, 1972). The area has been subject to complex structural deformation including folds and thrust faults (Potter, 1972). The resulting bedrock stratigraphy and structural geology of the area is variable and complex.

Groundwater in the unconsolidated overburden flows toward the Hoosic River. Groundwater flow in bedrock occurs predominantly through joints, fractures, faults, and foliation in the bedrock.

2.1.3 Topography

Topography in the area of the Village of Hoosick Falls and the surrounding Town of Hoosick is characterized by upland hilly areas on either side of the Hoosic River valley, which generally trends from south-southeast to north-northwest (Figure 2). Elevations in this area range from approximately 400 to 1,200 feet above mean sea level (amsl) with the lowest elevations found along the Hoosic River. The elevation of the Site is approximately 420 to 440 feet amsl.

2.1.4 Surface Waters

Surface water bodies in the area of the Village of Hoosick Falls and the surrounding Town of Hoosick include perennial streams, intermittent streams, ponds, and rivers (Figure 2). The major surface-water feature is the Hoosic River, which flows north-northwestward through the center of the valley.

Woods Brook is an intermittent stream that flows towards the Village of Hoosick Falls from the east (Figure 2). The stream is culverted beneath portions of the Village before returning to an aboveground concrete channel located south-southeast of the Site. Woods Brook then flows generally northward along the east side of the Site and discharges into the Hoosic River.

2.1.5 Local Potable Water Sources

There are no private or public potable water wells identified within 0.25 mile of the Site.

The Village of Hoosick Falls' municipal well field is located east of the Hoosic River. The system is classified by the New York State Department of Health (NYSDOH) as "groundwater under the direct influence of surface water". The three currently active wells (well numbers 3, 6 and 7) have total well depths of 55, 59, and 70 feet, respectively (CHA, 2006). The system has an approximate capacity of 1.0 million gallons per day (gpd). Produced water is treated through a membrane filtration plant. Additionally, granular activated carbon (GAC) is utilized to remove perfluorooctanoic acid (PFOA) from the water since February 2016.

3.0 SITE CHARACTERIZATION METHODS

The SC was performed using environmental investigation methods outlined in the NYSDEC-approved Final Site Characterization Field Sampling and Analysis Plan – Phase 1 dated 20 July 2016 (ERM, 2016a) and the NYSDEC-approved Memorandum on Additional Phase 1 SC dated 18 October 2016 (ERM, 2016b). Methods used during the SC are summarized in Table 2.

Samples were analyzed by Eurofins Lancaster Laboratories Environmental (ELLE). ELLE is an Environmental Laboratory Approval Program (ELAP) approved laboratory (Laboratory ID 10670) for all parameters except PFAS, for which a regulatory approval has not yet been established by USEPA or NYSDEC.

3.1 STANDARDS, CRITERIA AND GUIDANCE

The following standards and criteria apply to this project.

- 6 NYCRR Part 375 - Environmental Remediation Programs
- 6 NYCRR Part 608 - Use and Protection of Waters
- 6 NYCRR Parts 700-706 - Water Quality Standards
- 29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response

The following guidance applies to this project.

- DER-10 – Technical Guidance for Site Investigation and Remediation (May 2010);
- USEPA Drinking Water Health Advisory for PFOA and perfluorooctane sulfonic acid (PFOS) dated May 2016 (USEPA, 2016a);
- NYSDEC Division of Spills Management - Sampling Guidelines and Protocols: Technologies Background and Quality Control/Quality Assurance for the NYSDEC Spill Response Program (NYSDEC, 1992);
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations (NYSDEC, 1998); and
- Screening and Assessment of Contaminated Sediment, NYSDEC Division of Fish, Wildlife and Marine Resources, Bureau of Habitat dated 24 June 2014 (NYSDEC 2014).

Sample results were compared to applicable NYS Standards, Criteria and Guidance (SCGs) by media as summarized below.

Groundwater

Groundwater results are compared to NYS Class GA ambient water quality standards and guidance values (NYSDEC, 1998) for target compound list (TCL) and target analyte list (TAL) constituents. NYS does not have ambient water quality standards or guidance values[1] for PFOA, PFOS, and the other PFAS.

The USEPA Lifetime Health Advisories of 70 ng/L for both PFOA and PFOS (individually and in total) are applicable only for drinking water (USEPA, 2016a).

Soil

Soil results are compared to NYS Part 375 Soil Cleanup Objectives (SCOs; NYSDEC, 2006) for the current land use for TCL and TAL constituents. NYS does not have SCOs for PFOA, PFOS or other PFAS.

In May 2016, the USEPA issued a site-specific Removal Management Level (RML) for Residential Soil for Hoosick Falls of 1,000 µg/kg for the combined level of PFOA and PFOS (USEPA 2016b; USEPA, 2016c). This RML was based on the reference dose used by the USEPA Office of Water to establish the drinking water health advisory of 70 ppt. This RML was used to screen the soil results.

Surface Water

Certain grab samples of water present at ground surface were designated surface water. These surface water samples were in: 1) low lying areas where surface water accumulates; 2) areas of potential groundwater discharge; or 3) drainage ditches or small creeks, which may lead to the Hoosic River. Although the locations of these samples do not fit the criteria for surface water as described in 6 NYCRR Part 701.2 through 701.9 (NYSDEC, 2016d), the results of the above-noted grab samples are compared to the Standards and Guidance Values listed for the following Class C Water Types: Type A(A) (Fish Survival), Type A(C) (Fish Propagation), Type H(FC) (Human Consumption of Fish), and Type W (Wildlife Protection). NYSDEC does not have SCGs for PFOA, PFOS or other PFAS.

[1] Ambient water quality, relates to water bodies such as lakes, rivers, and oceans. New York State has developed standards and guidance values for specific classes of fresh and saline surface waters and fresh groundwaters for protection of the best uses assigned to each class. See TOGS 1.1.1. (NYSDEC, 1998)

Sediment

The locations of sediment samples collected during the SC do not specifically fit the descriptions provided in NYSDEC sediment guidance, which is intended for projects that investigate potential risks to aquatic life (NYSDEC, 2014). For the purpose of this investigation, the results of designated sediment samples are compared to the NYSDEC Division of Fish, Wildlife and Marine Resources Bureau of Habitat Screening and Assessment of Contaminated Sediment Class A Freshwater Sediment Guidance Values (SGVs). Additionally, sediment sampling results for metals were evaluated by comparison to the Class A, Class B, and Class C Freshwater SGVs.

Soil Vapor

Soil vapor results are presented without comparison as NYS SCG values for soil vapor do not exist.

3.2 RECORDS SEARCH

A Records Search and document review was performed in conformance with applicable requirements contained in the Order and Appendix 3A of DER-10 NYSDEC, 2010a). The Records Search was undertaken to identify relevant historical environmental documentation. A summary of the Records Search is presented in Table 1.

According to the Environmental Data Resources (EDR) report and as indicated in Table 1, the tank that was closed in-place by AlliedSignal Laminate Systems in 1999 was located at Mechanic Street. The second tank, which was closed and removed in 1995 from John Street Fluorgas, Allied Signal Inc., plots to the middle of Church Street at the intersection of John and Church Streets by Key Bank, based on the coordinates provided in the EDR report. Historical information indicates that a 10,000-gallon fuel oil underground storage tank (UST) was present at the Site. This tank may be the UST referenced in the EDR report. Given the footprint of the former John Street building, the UST likely would have been located on the south end of the property but no specific information is available. Ground penetrating radar (GPR) surveys on the Site have not identified any USTs. Soil borings and soil and groundwater samples collected from the southern portion of the site do not indicate the presence of fuel oil constituents.

3.3 SURFACE GEOPHYSICAL SURVEY

Surface geophysical techniques were used to evaluate the subsurface hydrogeologic properties beneath and near the Site. Geophysical data were collected to determine the overall stratigraphic profile, depth to groundwater, depth to bedrock, and indications of faults or fractures in bedrock.

The surface geophysical methods utilized included Seismic Refraction, Resistivity, and Very Low Frequency (VLF) testing.

- Seismic Refraction profiling was performed to estimate bedrock depths and profile overburden stratigraphy.
- Two-dimensional Electrical Resistivity Imaging/Profiling was performed to measure lateral and vertical variations in apparent resistivity of subsurface materials.
- VLF testing data were collected by measuring anomalous magnetic fields generated in electrically-conductive geological features by ambient VLF radio signals. The VLF technique can locate water-bearing bedrock fractures.

3.4 SURFACE AND NEAR-SURFACE SOIL SAMPLING

Surface and near-surface soil samples were collected at the soil boring locations shown on Figure 4 described in Table 3. Surface soil samples were collected using a stainless steel hand auger or shovel at a depth of 0 to 2 inches below the surficial vegetative cover, but included the root mass. Near-surface soil samples were collected using a stainless steel hand auger at a depth of 2 to 12 inches below the surficial vegetative cover. At select locations, the depth intervals of the surface and near-surface soil samples were adjusted if the ground surface was comprised of asphalt and/or concrete. At other locations, surface and near-surface soil samples were not collected due to the ground surface conditions.

The former facility at John Street was demolished in 2012 and the majority of the surface is covered with several feet of crushed stone. Therefore, the ability to collect discrete surface or near-surface soil samples was limited.

Soil samples were placed directly into sealable high-density polyethylene (HDPE) bags, which were labeled with the depth interval. The soil was allowed to equilibrate within the bag for approximately five minutes prior to the collection of headspace readings. Soil was screened by an ERM geologist using a calibrated photoionization detector (PID) equipped with an 11.7 electron volt (eV) lamp. Soil samples were visually examined for physical properties including color, texture, composition, moisture content, odor, and visual evidence of staining, discoloration, or product/sheen. Soil descriptions and other field data and observations were documented on soil boring logs (Appendix A).

Soil samples were placed into laboratory-provided sampling containers, which were labeled and stored in a clean pre-chilled cooler. The soil samples for VOC analysis were collected using USEPA Method 5035, in which five grams of soil were weighed in the field and added to 40-milliliter (mL) vials containing methanol or sodium bisulfate preservative as required. The remaining sample containers were filled with soil and root mass from each sampling interval without the addition of preservative. All samples were managed under chain-of-custody procedures and submitted to the project laboratory for analysis of parameters indicated in Table 3. Decontamination procedures followed in the field are summarized in Section 3.11.

Precautions were used to avoid the use of sampling equipment and materials that may contain PFAS. These precautions included, but were not limited to, HDPE plastic covering placed on the sampling table, decontamination of tools and new nitrile gloves donned per sampling interval. PFAS-specific sampling considerations for all media are presented in Section 3.12.

The selection of final soil sampling locations was determined based on visual and other observations at the Site during sampling (i.e., disturbed, stained, and/or low-lying areas) and discussions with NYSDEC's field representative.

3.5 SUBSURFACE SOIL SAMPLING

Subsurface soil samples were collected at the soil boring locations shown on Figure 4 and described in Table 3. Soil borings were advanced to the top of bedrock or drilling refusal using direct-push macro core or dual-tube drilling methods. Each borehole was sampled continuously using dedicated sample liners for geologic characterization. Discrete interval samples were collected for laboratory analysis. Reusable sampling equipment was decontaminated between borehole locations as described in Section 3.11.

Headspace screening by PID and sample description were conducted as described in Section 3.4. Soil descriptions and other field data/observations were documented on soil boring logs (Appendix A).

Soil samples selected for laboratory analysis were biased towards the two-foot interval of highest suspected contamination based on the results of PID screening, visual examination and consultation with NYSDEC's field representative. In the absence of apparent contamination, one soil sample was collected from the two-foot depth interval above the water table. Additional soil samples for laboratory analysis were collected based on:

- Field screening results;
- Visual examination for discoloration, mottling, or other observations suggestive of possible organic-rich zones; and

- Consultation with NYSDEC's field representative.

Storage and preservation was performed as described in Section 3.4.1. All samples were managed under chain-of-custody procedures and submitted to the project laboratory for analysis of parameters indicated in Table 3. Decontamination procedures are presented in Section 3.11. Special precautions relative to PFAS are provided in Section 3.12.

3.6 OVERBURDEN PERMEABILITY PROFILING AND GROUNDWATER SAMPLING

This task was to evaluate groundwater quality and hydrogeologic characteristics. Under the direction of ERM personnel, Cascade Technical Services, Inc. of Montpelier, Vermont, utilized the Waterloo Advanced Profiling System™ (APS™) Technology to continuously log the index of inferred hydraulic conductivity (Ik) and collect discrete-interval groundwater samples.

Ten profile borings were completed: five on the Site and five at off-site locations. Ik values were logged and graphically profiled as the Waterloo APS™ tooling was advanced by Geoprobe direct-push rig. These real-time data were used to identify zones of higher permeability for potential sampling. Once a sample interval was selected, the sample port was opened and groundwater purging was initiated via a peristaltic pump. Select *in situ* geochemical parameters were measured to ensure groundwater stabilization prior to sample collection. Stabilization criteria for Waterloo APS™ sampling requires less than 10 percent (%) difference between consecutive readings of specific conductance (SpC), pH, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Geochemical parameters were collected with a YSI electronic field parameter meter. The YSI meter was calibrated three times per day per NYSDEC request. Samples were collected directly into laboratory-supplied sampling containers.

Samples were planned for collection from three intervals at each location: one at the water table, one between the water table and refusal, and one at drilling refusal. The final number and depth of samples collected was ultimately dependent upon the hydrogeologic conditions at the specific location. If the Ik was too low, the formation did not yield sufficient water for sampling, and the profiler was advanced deeper until Ik conditions were favorable for a sample attempt. If a location exhibited more than three discreet zones of relatively high Ik, additional samples were collected. In large continuous zones of high Ik, the ERM hydrogeologist and NYSDEC site personnel determined the frequency of sampling based on hydraulic head, geochemical parameters, location of other collected samples, and other Site considerations.

At each profiling location, the depth of the water table was measured when the probe was stationary. Once hydraulic head readings indicated that the probe was below the water table, sample collection was attempted. A sample was collected at the water table (or shallowest depth possible) for the full suite of analysis specified in Section 2.10.3 of the Final SC FSAP (ERM, 2016a). Subsequent deeper samples were collected for select parameters only as specified in the SC FSAP. Table 3 presents the constituents analyzed for each specific sample.

Retraction grouting of each borehole was performed immediately after completion to minimize potential vertical migration of contaminants. Cascade practiced standard Waterloo APS™ decontamination procedures between locations with Alconox® and potable water solution, followed by triple potable water rinse. Waterloo APS™ tooling was taken apart and all parts decontaminated thoroughly between boreholes. All decontamination water and materials were collected and placed in labeled Department of Transportation (DOT) approved 55-gallon steel drums. One equipment blank was collected from each profiler daily to ensure effectiveness of decontamination procedures.

3.7 FIXED MONITORING WELL INSTALLATIONS AND GROUNDWATER SAMPLING

3.7.1 Fixed Monitoring Well Installations

Monitoring well installations were initiated in October 2016. Thirty-one (31) wells were installed at selected depth intervals based on the texture, relative permeability, and thickness of subsurface geologic units observed during the Waterloo APS™ sampling and subsurface soil sampling. Between one and four overburden monitoring wells with different screened intervals were installed at each location, as summarized below:

Well Interval Designation	Screened Interval Description
A	Straddling or just below the water table
B	Below the clay unit near the top of the underlying sand and gravel
C	Near the bottom of the overburden deposits
D	Near the bottom of the overburden deposits

Monitoring wells were installed using direct-push drilling techniques and constructed with one-inch polyvinyl chloride (PVC) pipe. Hollow-stem auger drilling techniques were also utilized as necessary to reach target depths for deeper monitoring wells based on subsurface drilling conditions. Wells were constructed using 5-foot long 0.010-inch pre-slotted screens.

Filter packs were constructed around each well screen using Morie #0 or Morie #1 sand to a minimum of two feet above the top of the screen. A minimum two-foot thick bentonite seal was installed above the filter pack and hydrated with approved potable water. Cement-bentonite grout was installed in the remainder of the borehole to approximately one foot below ground surface. A flush-mounted steel protective casing was cemented in place over each well.

Monitoring wells in the B, C and D zones at and near the Site were double-cased to minimize the potential for downward contaminant migration. A four-inch diameter steel casing was installed and grouted five feet into the clay unit. Fluid rotary drilling techniques were used to advance the borehole to the top of bedrock or to drilling refusal. The B, C and D zone monitoring wells were installed nested inside the pilot casing. A summary of monitoring well construction is presented in Table 4. Monitoring well construction logs are presented in Appendix A.

The monitoring wells were developed using inertial pumping techniques. A stainless steel check valve and HDPE tubing was used for well development.

3.7.2 Groundwater Sampling

Groundwater sampling was initiated in January 2017. Monitoring wells were sampled using inertial pumping techniques with HDPE tubing and stainless steel check valve. Peristaltic pumps and HDPE tubing were also utilized where applicable. Groundwater samples were collected from all monitoring wells using low flow/minimal drawdown purging and sampling procedures (USEPA, 1996). Field parameter analyses were conducted using a calibrated YSI 566 meter with a flow-through cell and a water level indicator, which allows measurement of temperature, SpC, DO, pH, turbidity, ORP, and depth to water. Groundwater sampling records are presented in Appendix B. Equipment decontamination procedures are presented in Section 3.11. Special precautions relative to PFAS are provided in Section 3.12.

Groundwater samples were transported with chain-of-custody documentation to the project NYSDOH-approved environmental laboratory for analysis. A summary of groundwater samples collected for laboratory analysis and the specific chemical parameters of analysis are presented in Table 3.

3.7.3 Groundwater and Surface Water Level Gauging

Groundwater levels were obtained using an electronic water level indicator. The elevations of the top of casing for groundwater monitoring wells were surveyed by Clough Harbor and Associates of Albany, New York (CHA). CHA is a New York-licensed surveyor. Groundwater levels were measured using an electronic water level indicator.

Surface water levels were obtained by installing stream gauges at selected locations along the Hoosic River. The locations and elevations of the stream gauges were surveyed, and the distance from the stream gauge reference point to the top of surface water was measured to determine surface water elevations at each location.

3.8 SURFACE WATER SAMPLING

Grab samples of water present at ground surface were designated surface water. These samples were in: 1) low lying areas where surface water accumulates; 2) areas of potential groundwater discharge; or, 3) drainage ditches or small creeks, which may eventually lead to the Hoosic River.

Surface water samples were collocated with and collected prior to sediment samples to minimize the potential for entrainment of sediments in the surface water samples. For the same reason, the samples were collected from downstream to upstream within flowing water bodies. Four surface water samples were collected at the Site, and adjacent properties using the methods described in NYSDEC guidance (NYSDEC, 2010a). Equipment decontamination procedures are presented in Section 3.11. Special precautions relative to PFAS are provided in Section 3.12.

Surface water samples were collected using a peristaltic pump with Masterflex® and HDPE ¼” tubing. One end of the tubing was placed in the water column above the sediment and approximately one liter of water was purged prior to sample collection. Single use disposable tubing was used to prevent cross-contamination between sampling locations. Surface water samples were placed directly into laboratory-provided glassware. Table 3 presents the constituents analyzed for each specific sample.

The geochemical parameters temperature, pH, conductivity, SpC, DO, ORP, and turbidity were collected using a calibrated YSI multi-parameter probe calibrated at the beginning, middle, and end of each day. Turbidity was measured with a Lamotte 2020 turbidity meter that was similarly calibrated. The meter probes were placed in the water following sample collection and allowed to stabilize prior to recording measurements.

An equipment blank sample was taken each day using a new piece of tubing.

3.9 SEDIMENT SAMPLING

Two sediment samples were collected from the Site, and adjacent properties, co-located with surface water samples. Sediment sample collection was not possible at two locations adjacent to John Street because the channel is lined with concrete. Sediment samples were collected using the methods described in the USEPA's sediment sampling procedure (USEPA, 2001).

Sediment samples were collected using a stainless steel hand auger or stainless steel hand trowel depending on the nature of the sediment and depth of the water. Ponar or similar samplers as identified in the SC FSAP were not usable due to the large percentage of gravel and cobbles present at most locations. Obstructions such as gravel, twigs, or leaf detritus prevented the Ponar sampler from operating properly. The collected sediment was placed in a stainless steel bowl for characterization (grain size, sediment and detrital material composition, organic matter, mineral content, stratification). The sample was thoroughly mixed and any large debris was removed and discarded.

The sample was screened with a calibrated PID with an 11.7 eV lamp. The reading was recorded and the sample was then placed directly into sample containers provided by the project laboratory. Table 3 presents the constituents analyzed for each specific sample.

3.10 SOIL VAPOR SAMPLING

Soil vapor monitoring was conducted to provide information on potential soil gas concentrations at the former John Street facility.

Soil vapor point installations were initiated in December 2016. Nine soil vapor points were installed; however, only five were sampled due to the presence of groundwater in the point at the time of the sampling. Samples were collected from a depth consistent with a typical building footer (approximately 3 to 4 feet bgs) or a minimum of one foot above groundwater. Stainless steel rods equipped with a detachable stainless steel sampling point were driven to the desired depth. Dedicated Nylaflow® tubing was attached to each sampling point. Boreholes were backfilled with glass beads to a minimum of six inches above the sampling point. The remainder of the annular space was filled with bentonite chips and hydrated with approved potable water. The soil vapor sampling points were capped and four-inch protective steel covers were placed over the points. Soil vapor sampling points were set for a minimum of 24-hours prior to sampling. Detailed soil vapor point construction logs can be found in Appendix C.

The sampling point and tubing were purged prior to sampling. A container was placed over each soil vapor sampling point to create a seal. Helium tracer gas tests were performed to confirm a tight seal between the bentonite and soils at each location.

Soil vapor samples were collected using Summa canisters over a 24-hour period and were analyzed for VOCs by USEPA Method TO-15. An outdoor ambient air sample was also collected upwind of the Site during soil vapor sampling. A summary of soil vapor samples collected are presented in Table 3. The locations of the soil vapor sampling points and ambient air samples are shown on Figure 4.

3.11 DECONTAMINATION

Temporary decontamination pads were constructed with two layers of polyethylene sheeting bermed at the sides using lumber or other appropriate material. Re-usable drilling and sampling equipment and tools were cleaned with a Liquinox® and potable water solution followed by a distilled water rinse between uses. Decontamination water from the pad was transferred into pre-labeled 55-gallon steel drums.

Decontamination between each sediment sampling location included the procedures described above, plus a potable water rinse, distilled water rinse and air drying (USEPA, 2001).

3.12 PFAS SAMPLING CONSIDERATIONS

In order to avoid contamination of environmental samples with PFOA or other PFAS unrelated to the study site, conservative guidelines were used for sampling procedures and equipment decontamination (NJDEP, 2007; USEPA, 2015). These guidelines help avoid the use of or contact with materials that might potentially contain PFAS (USEPA, 2009) and are summarized in Section 5.3.12

- No Tyvek® clothing, new clothing or clothing treated with stain- or water-resistant coatings was allowed.
- No Post-It-Notes® were used during sampling.
- Personnel did not handle pre-wrapped food or snacks before sampling or while working at the properties.
- No material or equipment were used that contain Teflon® (i.e., Teflon® tubing, sample container cap liners, tape, etc.).

- Aluminum foil was not utilized to wrap/protect decontaminated sampling equipment.
- No materials or equipment were used that contained polytetrafluoroethylene (PTFE) (i.e., PTFE-coated aluminum foil, Gore-Sorbers™) or any other material containing a fluoropolymer.
- Only laboratory-supplied sampling containers/caps made of either polyethylene, high-density polyethylene (HDPE) or polypropylene were used for samples to be analyzed for PFOA and other PFAS.
- Field personnel washed their hands with soap and potable water prior to sampling activities.
- Chemical ice packs ("blue ice") were not used.
- Samples were preserved with wet ice only. Polyethylene bags were used to store ice.

All potable water used during the sampling effort was obtained from a source with no detectable concentrations of PFAS based on sampling and laboratory analysis prior to mobilization into the field.

Dedicated potable water containers were used in the field throughout the duration of the project. The containers were filled with potable water from a source known to have no detectable concentrations of PFAS. Aqueous field rinse blank samples were collected from the containers prior to mobilization and during use in the field to ensure that the potable water containers were not a potential source of PFAS.

The following NYSDEC special precautions for trace contaminant sampling were utilized based on review of Section 5.2.9 of the NYSDEC's Sampling Guidelines and Protocols (NYSDEC, 1992):

- A clean pair of new, disposable nitrile gloves was worn each time a different point or location was sampled; and
- Sample containers were placed into separate re-sealable polyethylene plastic bags immediately after collection and labeling.

3.13 DEVIATIONS FROM THE WORK PLAN

The following modifications to procedures outlined in the SC FSAP (ERM, 2016a) and the Memorandum on Additional Phase 1 SC (ERM, 2016b) were discussed with NYSDEC representatives in the field and approved for use during implementation of the SC.

July 2016

- NYSDEC requested that surface and near-surface soil samples originally planned for John Street locations B-001 and B-002 be collected at locations SS-001 and SS-002.

September 2016

- The proposed sampling location on the 49 Church Street property was moved to the 69 Church Street property on 15 September 2016.
- The proposed sampling location on the 21 Church Street property was moved to the 29 John Street property.
- Collection of groundwater samples at the properties using an inertial pumping system consisting of a stainless steel foot (check) valve and HDPE tubing was approved by NYSDEC on 29 September 2016 for all parameters of potential concern, including VOCs, as long as pump manufacturer's recommendations for VOC sampling are followed.
- Installation of five shallow one-inch PVC monitoring wells at the Site was approved by NYSDEC on 30 September 2016. Installations occurred at previous soil and groundwater sampling locations.

October 2016

- Drilling difficulties were encountered during the installation of soil borings at the Site and nearby properties due to "heaving sands" (i.e., formation entry into drilling rods at depth). These subsurface conditions resulted in delays and necessitated a switch at some locations from direct-push drilling techniques to hollow-stem auger drilling techniques in order to reach targeted drilling depths.
- Equipment used in sediment sampling was not wrapped in aluminum foil as stated in the procedure the SC FSAP; due to potential issues with PFAS contamination, no aluminum foil was used as per the special sampling precautions in Section 3.1.2.

November 2016

- Obtained approval from NYSDEC on 29 November 2016 to install two monitoring wells at location OS-MW-31 rather than the originally planned three wells based on geologic materials encountered during drilling.

December 2016

- Five of the nine proposed soil vapor points at the Site were sampled for laboratory analysis. Four proposed soil vapor points could not be sampled due to the presence of groundwater in the soil vapor points.

January 2017

- A groundwater sample could not be collected at location OS-MW-24A because the well was dry.
- A groundwater sample could not be collected at location OS-MW-28A because there was insufficient water in the well for purging and sampling.
- Due to limited sample volume, groundwater collected from monitoring well OS-MW-30A was only analyzed for VOCs.
- NYSDEC's field representative on 4 January 2017 approved a modification to the groundwater sampling procedure from using inertial pumping methods to peristaltic pumping methods.

4.0 SITE CHARACTERIZATION RESULTS

This section summarizes findings from implementation of the NYSDEC-approved SC FSAP (ERM, 2016a) and the NYSDEC-approved Memorandum on Additional Phase 1 SC (ERM, 2016b).

4.1 GEOLOGY AND HYDROGEOLOGY

4.1.1 Geophysical Survey Findings

The report on the surface geophysical survey for the Site was prepared by Geophysical Applications, Incorporated (GAI) of Holliston, Massachusetts and is included herein as Appendix D.

The seismic refraction surface geophysical method was utilized at and near the Site. Physical interferences precluded the use of resistivity and VLF at this location.

The GAI report presents summaries of the work performed, interpretive narrative, figures showing the geophysical traverses, and interpreted seismic-refraction cross-sections. The report contains two appendices:

- Appendix A contains spreadsheets listing ground-surface elevations, interpreted water-saturated overburden elevations, and interpreted bedrock elevations along each traverse.
- Appendix B presents color-shaded velocity-contour profiles for each seismic traverse.

The seismic data sets and color contour model plots of seismic data were examined individually and compared to one another to identify key interpretive trends and/or correlative indications. Key observations are as follow:

- The uppermost layer on each cross-section exhibited low compressional seismic velocity values between 1,000 and 1,500 ft/sec and represents the unsaturated zone.
- A layer of water-saturated overburden is interpreted below the dry soil/fill and above bedrock on most all traverses where measured velocities for this layer are interpreted to be approximately 5,000 ft/sec.
- Most calculated bedrock velocities ranged between approximately 11,000 to 12,000 ft/sec, which may indicate rock with some degree of fracturing or weathering.
- Significant variability in the bedrock surface was noted in all traverses, both from north to south and east to west. Depth to the

bedrock surface was interpreted to range from approximately 30 feet bgs to 130 feet bgs. While bedrock outcrops in the Hoosic River to the north, the seismic profiles indicate bedrock to the south abruptly plunges to approximately 130 feet bgs.

4.1.2 *Site-Specific Geology and Hydrogeology*

Figure 5 summarizes geologic materials encountered during the SC. Overburden units at the Site typically consist of an upper sandy unit with lesser amounts of gravel and silt. The upper sandy layer is underlain by a clay and silt unit that is laterally continuous across the area. The clay and silt units are typically underlain by a lower sand and gravel unit with interbedded sandy silt beds. Gravel and cobbles are more predominant near the top of bedrock.

Bedrock is dark gray to black slate or phyllite, which is weathered near the boundary between the overburden and competent rock.

The locations of geologic cross sections are shown on Figure 6. Review of cross sections A-A′ (Figure 10) and B-B′ (Figure 11) at John Street show the distribution and geometry of the overburden deposits and bedrock surface. Both cross sections denote pronounced thinning of the overburden deposits towards the north and east, as well as the irregular surface at top of bedrock.

The interpreted thickness of overburden deposits based on geophysical data is shown on Figure 7. Overburden thickness in the vicinity of the Site is variable, increasing from northeast to southwest and ranging from less than 30 to approximately 120 feet.

Figure 8 shows the interpreted thickness of clay and silt units at John Street based on soil boring logs and spline interpolation methods using ArcGIS software.

The interpreted top-of-bedrock surface, based on geophysical data, is shown in Figure 9. These data suggest that the bedrock surface slopes towards the southwest. This depression in the bedrock surface is suggestive of potential faulting or a deep erosional feature. Observations from soil boring logs are consistent with the geophysical data.

Groundwater is encountered in the overburden at the Site at depths of approximately 6 to 14 feet bgs. Groundwater elevations from shallow overburden monitoring wells ("A" Wells) and mapped groundwater contours are shown in Figure 12. Review of these data indicate that groundwater flow in the shallow sandy overburden unit is towards the north (i.e., towards the Hoosic River). Comparison with Figures 2, 10, and

11 suggests shallow overburden groundwater flow is controlled primarily by areal topography.

Figure 13 shows groundwater elevations for monitoring wells screened deeper within the overburden materials ("B" Wells) generally near the top of the lower sand and gravel unit. These data suggest that the potentiometric surface near the top of the lower sand and gravel unit is relatively flat. Figure 13 also shows vertical gradient data calculated using groundwater elevations and screened interval elevations between the "A" and B" monitoring wells. A negative vertical gradient indicates a net potential for downward groundwater flow, whereas a positive vertical gradient indicates net potential for upward groundwater flow. These data also show that vertical gradient is typically negative and suggest the potential for downward groundwater flow from the upper sandy unit through the clay and silt unit towards the lower sand and gravel unit. Calculated vertical gradient values range from -0.353 to +0.003 (dimensionless).

Figure 14 shows groundwater elevations for monitoring wells screened near the bottom of the lower sand and gravel unit ("C" Wells). These data indicate that the potentiometric surface near the bottom of the lower sand and gravel unit is also relatively flat. Figure 14 shows vertical gradient data calculated using groundwater elevations and screened interval elevations between the "B" and C" monitoring wells (i.e., between the top and the bottom of the lower sand and gravel unit). These data show that vertical gradient is typically negative, suggesting a general slight downward groundwater flow from the top of the lower sand and gravel unit towards the bottom of the unit. Calculated vertical gradient values range from -0.023 to +0.002.

Available data suggest that the upper sandy unit at the Site appears to represent an unconfined hydrogeologic unit. The clay and silt unit appears to represent a leaky aquitard, while the lower sand and gravel unit appears to represent one semi-confined hydrogeologic unit.

4.2 SAMPLE RESULTS

Samples were collected from both on and in the vicinity of the Site (on-site and off-site locations, respectively). Sample media included groundwater (by discrete-depth Waterloo APS™ and from monitoring wells), soil, surface water, sediment, and soil vapor. The results are presented in the following sections and summarized in Tables 5 through 15 and Figures 15 through 28.

4.2.1 *PFOA and Other PFAS*

4.2.1.1 *PFOA and Other PFAS in Waterloo APS™ Groundwater Samples*

The analytical results for PFOA and other PFAS from 35 discrete depth groundwater samples plus duplicates collected on- and off-site are presented in Table 5. Concentrations of PFOA are shown on the map in Figure 15.

On-Site Waterloo APS™ Groundwater Samples

PFOA concentrations in on-site groundwater ranged from 180 to 5,300 J ng/L. Generally, higher concentrations of PFOA were detected in the northern portion of the property and lower concentrations were observed to the south. In the northern portion of the property, the concentrations of PFOA generally decrease with depth; however, concentrations generally increase with depth on the southern portion.

PFOS was only detected in three on-site groundwater samples. Concentrations of PFOS ranged from below the detection limit to a maximum concentration of 8 J ng/L. Other PFAS concentrations ranged from below the detection limits to a maximum concentration of 200 ng/L.

Off-Site Waterloo APS™ Groundwater Samples

PFOA concentrations in groundwater samples collected from off-site sampling locations ranged from 130 to 3,200 ng/L and are similar to those detected in on-site groundwater. The highest concentrations of PFOA were detected in the deep sand and gravel layer at location OS-APS-028.

PFOS was only detected in two off-site groundwater samples at 7 J ng/L in both samples. Other PFAS concentrations range from below the detection limit to a maximum concentration of 120 ng/L.

4.2.1.2 *PFOA and Other PFAS in Groundwater Monitoring Well Samples*

The analytical results for PFOA and other PFAS from groundwater samples collected from 28 monitoring wells on- and off-site are presented in Table 6. Concentrations of PFOA are shown on the map in Figure 16.

On-Site Groundwater Monitoring Well Samples

PFOA concentrations in on-site groundwater ranged from 140 J to 6,400 ng/L, which is similar to the range of 180 to 5,300 J ng/L observed in the Waterloo APS™ groundwater sampling.

PFOS was detected in five of the 11 on-site groundwater samples. Concentrations of PFOS ranged from below the detection limit to a maximum concentration of 8 ng/L. Other PFAS concentrations ranged from below the detection limits to a maximum concentration of 160 ng/L.

Off-Site Groundwater

PFOA concentrations in off-site groundwater samples ranged from below the detection limit to 4,400 ng/L and are similar to those detected in on-site groundwater. The highest concentration of PFOA was detected in the deep sand and gravel layer at well OS-MW-028C.

PFOS was detected in eight samples from off-site monitoring wells at a maximum of 14 J ng/L. Other PFAS concentrations ranged from below the detection limit to a maximum concentration of 140 ng/L.

4.2.1.3 *PFOA and Other PFAS in Soil*

The analytical results for PFOA and other PFAS from soil samples collected on- and off-site are presented in Table 7. Concentrations of PFOA are shown on the map in Figure 17.

On-Site Soil

PFOA concentrations in on-site soil samples ranged from below the detection limit to 9.9 µg/kg with no exceedances of the USEPA screening value of 1,000 µg/kg for either PFOA or the sum of PFOA plus PFOS.

PFOS was only detected in one sample (JS-B-004) at a concentration of 0.77 J µg/kg, which is below the USEPA screening value of 1,000 µg/kg.

Other PFAS were detected in several soil samples at concentrations up to 0.6 µg/kg with no exceedances of the screening value of 1,000 µg/kg.

Off-Site Soil

PFOA concentrations in off-site soil samples ranged from below the detection limit to 5.1 µg/kg with no exceedances of the USEPA screening value of 1,000 µg/kg.

PFOS was detected at a maximum concentration of 38 µg/kg with no exceedances of the USEPA screening value of 1,000 µg/kg.

Other PFAS concentrations ranged from below the detection limits to 0.34 J µg/kg with no exceedances of the screening value of 1,000 µg/kg

4.2.1.4 *PFOA and Other PFAS in Surface Water*

The analytical results for PFOA and other PFAS from four surface water samples collected from off-site locations are presented in Table 8. Concentrations of PFOA are shown on the map in Figure 18.

<u>On-Site Surface Water</u>

No surface water was present on the site; therefore, no surface water samples were collected.

<u>Off-Site Surface Water</u>

PFOA concentrations in the four surface water samples collected from Woods Brook ranged from 210 to 350 ng/L. The two highest concentrations were found in the northern downstream portion of the brook where it is contained in a concrete channel.

PFOS was not detected in any of the off-site surface water samples. Two other PFAS (perfluorohexanoic acid (PFHxA) and perfluoroheptanoic acid (PFHpA)) were detected at concentrations ranging from 4 to 8 ng/L.

4.2.1.5 *PFOA and Other PFAS in Sediment*

The analytical results for PFOA and other PFAS from two sediment samples collected from off-site locations are presented in Table 9. Concentrations of PFOA are shown on the map in Figure 19.

<u>On-Site Sediment</u>

No surface water was present on the site; therefore, no sediment samples were collected.

<u>Off-Site Sediment</u>

PFOA concentrations in sediment samples collected from off-site locations were 0.66 and 0.89 µg/kg and below the USEPA screening value for PFOA in soil of 1,000 µg/kg.

No other PFAS were detected.

4.2.2 ***Volatile Organic Compounds***

4.2.2.1 *VOCs in Waterloo APS™ Groundwater Samples*

The analytical results for VOCs from 10 Waterloo APS™ groundwater samples collected on- and off-site are presented in Table 10.

Concentrations of VOCs with detections are shown on the map in Figure 20.

<u>On-Site Waterloo APS™ Groundwater Samples</u>

Five VOCs were detected in groundwater from on-site locations at concentrations that exceed their respective NY Class GA Standards at one or more locations (JS-APS-001 to JS-APS-004). No VOCs were detected above detection limits at JS-APS-005.

TCE is the only VOC that was detected at concentrations exceeding its NYS Class GA Standard at more than one on-site location (JS-APS-001 to JS-APS-003) in shallow groundwater with concentrations ranging from 8 µg/L at JS-APS-003 (8.8 feet bgs) to 110 µg/L at JS-APS-001 (14.1 feet bgs).

Two other VOCs, 1,1,1-TCA and cis-1,2-DCE, were also detected at JS-APS-001 (14.1 feet bgs) at concentrations that exceed their respective NYS Class GA Standards.

Two VOCs, 1,1-DCE and 1,1-DCA, were detected at JS-APS-004 (61.9 feet bgs) at concentrations that exceed their respective NYS Class GA Standards.

Two other VOCs were detected in groundwater but at concentrations below their respective NYS Class GA standards. Vinyl chloride, was detected at one location (JS-APS-004 (61.9 feet bgs)) at a concentration of 0.6 J µg/L and tetrachloroethene was detected at two locations JS-APS-001 (14.1 feet bgs) and -003 (8.8 feet bgs)) at 0.6 J and 1 µg/L, respectively.

At occupied properties in the vicinity of locations with groundwater detections of VOCs, vapor intrusion evaluations were conducted if the property owner agreed to the collection of indoor air samples. The results of this work were submitted to NYSDEC in July 2017 (ERM, 2017a).

<u>Off-Site Waterloo APS™ Groundwater Samples</u>

Three VOCs (1,1,1-TCA, 1,1-DCA and TCE) were detected in groundwater at one off-site location OS-APS-024 (40.2 feet bgs) at concentrations above their respective Class GA Standards. VOCs were also detected in groundwater samples collected from several other off-site locations (OS-APS-024, -025, and -027) at concentrations below their respective Class GA Standards.

At occupied properties in the vicinity of locations with groundwater detections of VOCs, vapor intrusion evaluations were conducted if the property owner agreed to the collection of indoor air samples. The results of this work were submitted to NYSDEC in July 2017 (ERM, 2017a).

4.2.2.2 *VOCs in Groundwater Monitoring Well Samples*

The analytical results for VOCs from 30 groundwater samples collected from on- and off-site monitoring wells are presented in Table 11. Concentrations of VOCs with detections are shown on the map in Figure 21.

On-Site Groundwater Monitoring Well Samples

Seven VOCs were detected in groundwater from on-site locations at concentrations that exceed their respective NY Class GA Standards at one or more locations. No VOCs were detected above detection limits at JS-MW-004A and -004C and JS-MW-005.

TCE and 1,1,1-TCA were detected in the shallow wells at concentrations similar to those detected in the shallow Waterloo APS™ samples.

At occupied properties in the vicinity of locations with groundwater detections of VOCs, vapor intrusion evaluations were conducted if the property owner agreed to the collection of indoor air samples. The results of this work were submitted to NYSDEC in July 2017 (ERM, 2017a).

Off-Site Groundwater Monitoring Well Samples

Seven VOCs were detected in groundwater at concentrations above their respective Class GA Standards. The highest concentrations of both TCE and 1,1,1-TCA were detected in samples from deep well OS-MW-026B with maximum concentrations of 1,300 µg/L for TCE and 1,700 µg/L. The highest concentrations of TCE and 1,1,1-TCA in shallow groundwater were detected at OS-MW-031A at 56 and 160 µg/L, respectively.

At occupied properties in the vicinity of locations with groundwater detections of VOCs, vapor intrusion evaluations were conducted if the property owner agreed to the collection of indoor air samples. The results of this work were submitted to NYSDEC in July 2017 (ERM, 2017a).

4.2.2.3 *VOCs in Soil*

The analytical results for VOCs from 42 soil samples collected on- and off-site are presented in Table 12. Concentrations of VOCs that exceed potentially applicable SCOs are shown on the map in Figure 22.

On-Site Soil

TCE was detected in one soil sample from location JS-B-003 (15 to 17 feet bgs) at 420,000 µg/kg, which exceeds the NYS Commercial Use SCO.

Off-Site Soil

No VOCs were detected in soil samples collected from off-site locations at concentrations that exceed the NYS Residential Use SCOs.

4.2.2.4 *VOCs in Surface Water*

The analytical results for VOCs from four surface water samples collected from off-site locations are presented in Table 13.

On-Site Surface Water

No surface water was present on the site; therefore, no surface water samples were collected.

Off-Site Surface Water

No VOCs were detected in surface water samples collected from off-site locations.

4.2.2.5 *VOCs in Sediment*

The analytical results for VOCs from two sediment samples collected from off-site locations are presented in Table 14.

On-Site Sediment

No surface water was present on-site; therefore, no sediment samples were collected.

Off-Site Sediment

No VOCs were detected in sediment samples collected from off-site locations at concentrations that exceed the appropriate NYS Class A SGVs.

4.2.2.6 *VOCs in Soil Vapor*

Soil vapor results from on-site locations are summarized in Table 15 and the results for TCE and 1,1,1-TCA is shown on Figure 23.

Two VOCs were detected at elevated concentrations in soil vapor samples collected along the western property boundary. TCE was detected at a maximum concentration of 3,500 micrograms per cubic meter ($\mu g/m^3$). 1,1,1-TCA was detected at a maximum concentration of 3,700 $\mu g/m^3$.

No NYS Standards or guidance values exist for comparison with these soil vapor results.

These results are consistent with the presence of VOCs in on-site groundwater samples. At occupied properties in the vicinity of locations with groundwater detections of VOCs, vapor intrusion evaluations were conducted if the property owner agreed to the collection of indoor air samples. The results of this work were submitted to NYSDEC in July 2017 (ERM, 2017a).

4.2.3 *Semi-volatile Organic Compounds*

4.2.3.1 *SVOCs in Waterloo APS™ Groundwater Samples*

The analytical results for SVOCs from 10 Waterloo APS™ groundwater samples collected on- and off-site are presented in Table 10.

On-Site Waterloo APS™ Groundwater Samples

Two SVOCs were detected in groundwater samples collected from on-site locations. Bis(2-ethyl)phthalate was detected below its Class GA Standard in one sample and 1,4-dioxane, which does not have a NYS Class GA Standard or guidance was detected in two samples JS-APS-001 (14.1 feet bgs) and JS-APS-004 (61.9 feet bgs) at 2 J µg/L and 1 J µg/L, respectively.

Off-Site Waterloo APS™ Groundwater Samples

No SVOCs were detected in off-site groundwater samples.

4.2.3.2 *SVOCs in Groundwater Monitoring Well Samples*

The analytical results for SVOCs from the one groundwater sample that was collected from an off-site location are presented in Table 11.

No SVOCs were detected in the off-site groundwater sample.

4.2.3.3 *SVOCs in Soil*

The analytical results for SVOCs from 30 soil samples collected from on- and off-site locations are presented in Table 12. Concentrations of SVOCs with detections above potentially applicable NYS SCOs are shown on the map in Figure 24.

On-Site Soil

Two PAHs, benzo(a)pyrene and dibenzo(a,h)anthracene, exceed the NYS Industrial Use SCO for soil in one near-surface soil sample JS-B-004 (2 to 12-inch). Two PAHs, benzo(a)anthracene and benzo(b)fluoranthene, exceeded the NYS Commercial Use SCO in the same soil sample. This location is near the street and the area has been used for parking. The

PAH concentrations that were detected may be related to asphalt and/or automotive fuel or emissions.

Off-Site Soil

Benzo(a)pyrene concentration exceeds the NYS Industrial Use SCO in surface and near surface soil at one location (OS-B-025) and dibenzo(a,h)anthracene exceeds the NYS Commercial Use SCO in surface soil at the same location (OS-B-025). This location is on a non-residential commercial property and is adjacent to a parking lot. The detected PAHs may be related to asphalt and/or automotive fuel or emissions.

4.2.3.4 *SVOCs in Surface Water*

The analytical results for SVOCs from four surface water samples collected from off-site locations are presented in Table 13.

On-Site Surface Water

No surface water was present on the site; therefore, no surface water samples were collected.

Off-Site Surface Water

No SVOCs were detected in surface water samples collected from off-site locations.

4.2.3.5 *SVOCs in Sediment*

The analytical results for SVOCs from two sediment samples collected from off-site locations are presented in Table 14.

On-Site Sediment

No surface water was present on-site; therefore, no sediment samples were collected.

Off-Site Sediment

No SVOCs were detected above appropriate NYS Class A SGVs in the two sediment samples collected from off-site locations.

4.2.4 *Pesticides*

4.2.4.1 *Pesticides in Waterloo APS™ Groundwater Samples*

The analytical results for pesticides from nine Waterloo APS™ groundwater samples collected on- and off-site are presented in Table 10.

On-Site Waterloo APS™ Groundwater Samples

No pesticides were detected in on-site groundwater samples at concentrations that exceed the NYS Class GA Standards.

Off-Site Waterloo APS™ Groundwater Samples

No pesticides were detected in any off-site Waterloo APS™ groundwater samples.

4.2.4.2 *Pesticides in Groundwater Monitoring Well Samples*

The analytical results for pesticides from one groundwater monitoring well sample collected from an off-site location are presented in Table 11.

No pesticides were detected in the off-site groundwater sample from monitoring well OS-MW-030D.

4.2.4.3 *Pesticides in Soil*

The analytical results for pesticides from 30 soil samples collected from on- and off-site locations are presented in Table 12.

On-Site Soil

No pesticides were detected in soil samples from on-site locations at concentrations that exceed the NYS Commercial Use SCOs.

Off-Site Soil

No pesticides were in soil samples from off-site locations at concentrations that exceeded the NYS Residential Use SCO.

4.2.4.4 *Pesticides in Surface Water*

The analytical results for pesticides from four surface water samples collected from off-site locations are presented in Table 13.

On-Site Surface Water

No surface water was present on the site; therefore, no surface water samples were collected.

Off-Site Surface Water

No pesticides were detected in surface water samples collected from off-site locations

4.2.4.5 *Pesticides in Sediment*

The analytical results for pesticides from two sediment samples collected from off-site locations are presented in Table 14.

On-Site Sediment

No surface water was present on-site; therefore, no sediment samples were collected.

Off-Site Sediment

No pesticides were detected above appropriate NYS Class A SGVs in the two sediment samples collected from off-site locations.

4.2.5 ***Polychlorinated Biphenyls (PCBs)***

4.2.5.1 *PCBs in Waterloo APS™ Groundwater Samples*

The analytical results for PCBs from nine Waterloo APS™ groundwater samples collected on- and off-site are presented in Table 10.

No PCBs were detected in on- and off-site Waterloo APS™ groundwater samples.

4.2.5.2 *PCBs in Groundwater Monitoring Well Samples*

The analytical results for PCBs from one groundwater monitoring well sample that was collected from an off-site location are presented in Table 11.

No PCBs were detected in the sample from monitoring well OS-MW-030D.

4.2.5.3 *PCBs in Soil*

The analytical results for PCBs from 30 soil samples collected from on- and off-site locations are presented in Table 12.

On-Site Soil

No PCBs were detected above NYS Commercial SCOs in soil samples collected from on-site locations.

Off-Site Soil

No PCBs were detected above any of the NYS Residential SCOs in soil samples collected from on-site locations.

4.2.5.4 *PCBs in Surface Water*

The analytical results for PCBs from four surface water samples collected from off-site locations are presented in Table 13.

On-Site Surface Water

No surface water was present on-site; therefore, no surface water samples were collected.

Off-Site Surface Water

No PCBs were detected in surface water samples collected from off-site locations.

4.2.5.5 *PCBs in Sediment*

The analytical results for PCBs from two sediment samples collected from off-site locations are presented in Table 14.

On-Site Sediment

No surface water was present on-site; therefore, no sediment samples were collected.

Off-Site Sediment

No PCBs were detected above appropriate NYS Class A SGVs in the two sediment samples collected from off-site locations

4.2.6 Metals

4.2.6.1 *Metals in Waterloo APS™ Groundwater Samples*

The analytical results for metals from ten groundwater samples collected on- and off-site are presented in Table 10. The results for metals that exceed NYS GA Standards or guidance are shown on the map in Figure 25.

On-Site Waterloo APS™ Groundwater Samples

Five metals (cadmium, iron, manganese, selenium, and sodium) were detected at concentrations that exceed their respective NYS Class GA Standards in one or more groundwater samples from on-site locations.

Iron and manganese are naturally occurring metals that are commonly found in groundwater. Sodium is a naturally occurring metal and its use in road salt commonly contributes to its occurrence in groundwater.

Antimony and selenium are also naturally occurring metals but are less commonly found in groundwater.

Off-Site Waterloo APS™ Groundwater Samples

Three metals (iron, manganese and sodium) exhibited exceedances of NYS GA Standards in groundwater from off-site locations.

Iron and manganese are naturally occurring metals that are commonly found in groundwater. Sodium is a naturally occurring metal and its use in road salt commonly contributes to its occurrence in groundwater.

4.2.6.2 *Metals in Groundwater Monitoring Well Samples*

The analytical results for metals from 28 groundwater samples collected on- and off-site are presented in Table 11. The results for metals that exceed NYS Class GA Standards or guidance are shown on the map in Figure 26.

On-Site Groundwater Monitoring Well Samples

Four metals (iron, manganese, selenium, and sodium) were detected at concentrations that exceed their respective NYS Class GA Standards in one or more groundwater samples from on-site locations. The exceedance for selenium was only detected at one monitoring well JS-MW-001A. No exceedance for cadmium, which had previously been detected above the NYS Class GA standard in a Waterloo APS™ sample, was found.

Iron and manganese are naturally occurring metals that are commonly found in groundwater. Sodium is a naturally occurring metal and its use in road salt commonly contributes to its occurrence in groundwater. Selenium is also a naturally occurring metals but is less commonly found in groundwater.

Off-Site Groundwater Monitoring Well Samples

Seven metals (barium, chromium, iron, lead, magnesium, manganese and sodium) exhibited exceedances of NYS GA Class Standards in groundwater from off-site locations.

Barium and chromium exhibited one exceedance each at monitoring wells OS-MW-030B and OS-MW-031B, respectively. The two lead and magnesium exceedances were also detected in these two wells.

4.2.6.3 *Metals in Soil*

The analytical results for metals from 32 soil samples collected on- and off-site are presented in Table 12. The results for metals that exceed potentially applicable NYS SCOs are shown on the map in Figure 27.

On-Site Soil

Copper was detected in two on-site soil samples at concentrations that exceed the NYS Commercial Use SCO of 270 mg/kg at JS-B-002 (6 to 8 feet bgs) and JS-B-005 (0 to 2-inches bgs) at 308 and 734 mg/kg, respectively.

Nickel was detected in one on-site soil sample JS-B-003 (2 to 12-inches bgs) at 313 mg/kg, which exceeds the NYS Commercial Use SCO of 310 mg/kg.

Off-Site Soil

No metal concentrations in soil samples from off-site locations exceeded the NYS Residential Use SCOs.

4.2.6.4 *Metals in Surface Water*

The analytical results for metals from four surface water samples collected from off-site locations are presented in Table 13.

On-Site Surface Water

No surface water was present on-site; therefore, no surface water samples were collected.

Off-Site Surface Water

No metal concentrations in surface water samples from off-site locations exceeded appropriate NYS Class C values.

4.2.6.5 *Metals in Sediment*

The analytical results for metals from sediment samples collected from off-site locations are presented in Table 14.

On-Site Sediment

No surface water was present on-site; therefore, no sediment samples were collected.

Off-Site Sediment

Copper, lead and nickel were detected at concentrations above the Class A SGVs in sediment but not above Class B or C SGVs. No other metals were detected at concentrations exceeding Class A SGVs in sediment samples. The results for metals that exceed potentially applicable NYS Class A SGVs are shown on the map in Figure 28.

4.2.7 *Total Cyanide*

4.2.7.1 *Total Cyanide in Waterloo APS™ Groundwater Samples*

The analytical results for total cyanide from eight Waterloo APS™ groundwater samples collected on- and off-site are presented in Table 10.

Total cyanide was not detected in on- and off-site groundwater samples.

4.2.7.2 *Total Cyanide in Groundwater Monitoring Well Sample*

The analytical result for total cyanide from the one groundwater monitoring well sample collected from an off-site location is presented in Table 11.

Total cyanide was not detected in the off-site groundwater sample from monitoring well OS-MW-031A.

4.2.7.3 *Total Cyanide in Soil*

The analytical results for total cyanide from 30 soil samples collected from on- and off-site locations are presented in Table 12.

<u>On-Site Soil</u>

Total cyanide was not detected in any on-site soil sample at a concentration exceeding the NYS Unrestricted SCOs for soil.

<u>Off-Site Soil</u>

Total cyanide was not detected in any off-site soil samples.

4.2.7.4 *Total Cyanide in Surface Water*

The analytical results for total cyanide from four surface water samples collected from off-site locations are presented in Table 13.

<u>On-Site Surface Water</u>

No surface water was present on-site; therefore, no surface water samples were collected.

Off-Site Surface Water

No total cyanide was detected in surface water samples collected from off-site locations.

4.2.7.5 *Total Cyanide in Sediment*

The analytical results for total cyanide from two sediment samples collected from off-site locations are presented in Table 14.

On-Site Sediment

No surface water was present on-site; therefore, no sediment samples were collected.

Off-Site Sediment

No total cyanide was detected in the two sediment samples collected from off-site locations.

4.2.8 Total Organic Carbon (TOC) and pH

4.2.8.1 *TOC and pH in Waterloo APS™ Groundwater Samples*

The analytical results for TOC and pH from groundwater samples collected on- and off-site are presented in Table 5. The results are also shown on the map in Figure 15.

On-Site Waterloo APS™ Groundwater Samples

The pH values in on-site Waterloo APS™ groundwater samples were slightly alkaline and ranged from 7.5 to 8.2, which is within the NYS Class GA Standard range of 6.5 to 8.5.

TOC concentrations ranged from below the detection limit to 2.5 mg/L.

Off-Site Waterloo APS™ Groundwater Samples

The pH values in off-site Waterloo APS™ groundwater samples were slightly alkaline and ranged from 7.3 to 8.3, which is within the NYS Class GA Standard range of 6.5 to 8.5.

TOC concentrations ranged from below the detection limit to 2 mg/L.

4.2.9 *TOC and pH in Groundwater Monitoring Well Samples*

The analytical results for TOC and pH from groundwater monitoring well samples collected on- and off-site are presented in Table 6. The results are also shown on the map in Figure 16.

4.2.9.1 *On-Site Groundwater Monitoring Well Samples*

The pH values in on-site groundwater monitoring well samples were slightly alkaline and ranged from 7.3 to 8.7. The pH of only one sample (JS-MW-004C) was slightly above the NYS Class GA Standard range of 6.5 to 8.5.

TOC concentrations ranged from 0.95 J to 31.9 mg/L.

4.2.9.2 *Off-Site Groundwater Monitoring Well Samples*

The pH values in off-site groundwater samples ranged from 6.9 to 8.8, which is within the NYS Class GA Standard range of 6.5 to 8.5. The pH values of two samples (OS-MW-027C and OS-MW-030B) were slightly above the NYS GA Standard range of 6.5 to 8.5.

TOC concentrations ranged from below the detection limit to 14 mg/L.

4.2.9.3 *TOC and pH in Soil*

The analytical results for TOC and pH from soil samples collected from on- and off-site locations are presented in Table 7. The results are also shown on the map in Figure 17.

<u>On-Site Soil</u>

The pH values in on-site soil ranged from 6.7 to 8.7.

TOC concentrations in on-site soil ranged from 5,520 to 22,100 mg/kg in surface and near surface soil samples and from 198 to 16,800 mg/kg in subsurface soil samples. The deep samples from below the clay layer exhibited low TOC concentrations ranging from 198 J to 920 mg/kg.

<u>Off-Site Soil</u>

pH in off-site soil ranged from 6.6 to 8.3 in surface and near surface soil samples and from 6.9 to 8.9 in subsurface soil samples.

TOC concentrations in off-site soil ranged from 3,540 to 31,900 mg/kg in surface and near surface soil samples and from 695 to 4,020 mg/kg in subsurface soil samples.

4.2.9.4 *TOC and pH in Surface Water*

The analytical results for TOC and pH from four surface water samples collected off-site are presented in Table 8. The results are also shown on the map in Figure 18.

<u>On-Site Surface Water</u>

No surface water was present on-site; therefore, no surface water samples were collected.

<u>On-Site Surface Water</u>

The pH values in the off-site surface water samples were slightly alkaline and ranged from 8.0 to 9.6.

TOC concentrations ranged from 2.6 to 3.6 mg/L

4.2.9.5 *TOC and pH in Sediment*

The analytical results for TOC and pH from two sediment samples collected off-site are presented in Table 9. The results are also shown on the map in Figure 19.

<u>On-Site Sediment</u>

No surface water was present on-site; therefore, no sediment samples were collected.

<u>Off-Site Sediment</u>

The pH values in the two off-site sediment samples OS-SED-017 and OS-SED-018 were slightly alkaline at 7.82 and 7.86, respectively.

TOC concentrations in OS-SED-017 and OS-SED-018 were 4,250 and 1,670 mg/kg, respectively.

4.3 ASSESSMENT OF DATA QUALITY

4.3.1 Data Quality Objectives

Data Quality Objectives (DQOs) are qualitative and quantitative criteria used to support the decision making process. DQOs define the uncertainty in analytical data and consider precision, accuracy, representatives, completeness, and comparability (PARCC):

- Precision is a measure of mutual agreement among measurements of the same property usually under prescribed similar conditions. Precision is best expressed in terms of the standard deviation.
- Accuracy is the degree of agreement of a measurement (or an average of measurements) with an accepted reference of "true value". Accuracy is an estimate of potential numerical bias (i.e., low or high) in analytical data.
- Representativeness expresses the degree to which data parameter variations at a sampling point indicate a process condition, or an environmental condition.
- Completeness is a measure of the amount of valid data obtained compared to the amount that was expected to be obtained under correct normal conditions.
- Comparability expresses the confidence with which one data set can be compared with another. Comparability is a qualitative measurement. Comparability is assessed by reviewing results or procedures for analytical data that do not agree with expected results.

All samples were analyzed by Eurofins Lancaster Laboratories Environmental. A NYSDEC Analytical Services Protocol (ASP) Category B deliverable was provided for all data. Table 3 presents each sample and the analytical tests performed. Samples were analyzed for one or more of the following tests. More detailed information about each test is provided in Table 16.

The Quality Assurance Officer carried out a preliminary review of the data packages. The data were validated by an independent third party, Environmental Data Services, Inc. (EDS), located at 177 Herman Melville Avenue, Newport News, Virginia. The review of the sampling data by EDS was performed in accordance with the:

- Analytical methods;
- NYSDEC ASP (NYSDEC, 2010a);
- USEPA CLP National Functional Guidelines for Organic Superfund Data Review (USEPA, 2017a);
- USEPA CLP National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2017b);
- Applicable USEPA Region II Data Review Standard Operating Procedures; and
- Reviewer's professional judgment.

The order in which the aforementioned guidance documents and/or criteria were listed as being used for validation does not imply a hierarchy of reliance. The most comprehensive reference sources were used to perform a complete data validation.

4.3.2 *Data Usability*

Data validation reports (DVRs) were prepared for all samples based upon the data review. The DVRs consist of a section that contains an assessment of the deliverables, followed by a section that describes the analytical results and any qualifications that should be considered when using the data. The DVRs highlight the data results that did not meet QC limits and therefore required data qualification. These tables include information such as, blank contamination, surrogate recoveries, and internal standard area counts that did not meet QC criteria.

The following items/criteria were reviewed for Organics:

- Case narrative and deliverables compliance;
- Holding times both technical and procedural and sample preservation (including pH and temperature);
- System Monitoring Compound (Surrogate) recoveries and summaries;
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) results, recoveries and summaries;
- Laboratory Control Sample (LCS) or Blank spike (BS) results, recoveries and summaries;
- Method blank results and summaries;
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning and performance;
- Initial and continuing calibration summaries;
- Internal standard areas, retention times and summaries;
- Field and Trip Blank Data when applicable;
- Blind Field Duplicate sample results when applicable
- Organic analysis data sheets (Form I);
- GC/MS chromatograms, mass spectra and quantitation reports
- Quantitation/detection limits; and
- Qualitative and quantitative compound identification.

The following items/criteria were reviewed for the Inorganics:

- Case narrative and deliverable requirements;
- Holding times and sample preservation;

- Detection limits;
- Inorganic analysis data sheets (Form I);
- Initial and continuing calibration verifications;
- Contract Required Detection Limit (CRDL) standard analysis;
- Lab blank data;
- Inductively Coupled Plasma Spectroscopy (ICP) interference check sample (ICS) analysis;
- Matrix Spike analysis;
- Matrix Duplicate analysis;
- LCS results;
- ICP serial dilution analysis;
- Field Blank results when applicable; and
- Blind Field Duplicate results when applicable.

Qualification of data, where appropriate, was made by the use of qualifier codes based upon the data validation process. These qualifiers are defined in the data tables where used and serve as an indication of the qualitative and quantitative reliability of the data.

The final review of the all DVRs was performed by the ERM Quality Assurance Officer. The validation indicated that all data are valid and usable for the purposes of the SC with the few exceptions described in the DVRs. Of over 47,000 analyses performed, 27 were rejected for a completeness of over 99.9%. The rejected analyses were not used for data interpretation. Tables 5 to 15 present final validated data.

4.4 INVESTIGATION DERIVED WASTES

Investigation-derived waste (IDW) consisted of the following:

- Water: decontamination fluids, monitoring well development water, surface water and groundwater from Waterloo APS™ profiling and monitoring well sampling;
- Disposables: personal protective equipment, HDPE tubing used for groundwater sampling, paper towels and HDPE plastic; and
- Solids: soil cuttings, sediment and drilling mud.

The IDW generated from the field sampling efforts was placed in DOT-approved 55-gallon steel drums and staged in appropriate containers for subsequent waste characterization sampling and analysis, waste determination and disposal. A summary of all IDW accumulated during the site investigation is presented in Table 17.

All containers of IDW were labeled with generator name, address, contents, container number, waste determination status and accumulation start date. The IDW containers were staged in on-site designated, secure temporary staging areas located at the John Street property. IDW will be shipped under an approved waste profile to a disposal or recycling facility as approved by the NYSDEC. Waste manifests will be submitted in a subsequent report.

4.5 RECOMMENDATIONS

AOPCs were identified based on the SC results and are summarized in Tables 18. The table provides a description of each AOPC, the associated COPCs, and the approximate dimensions and suspected sources where information is available. A recommendation for either additional investigation in the Remedial Investigation (RI), remediation or no further action is given for each AOPC.

Several COPCs have been detected in soil and/or groundwater at concentrations above applicable NYS SCGs.

NYSDEC reclassified the Site as a Class 2 site on the Registry. Therefore, an RI will be conducted to further develop information to support the CSM by seeking to refine the lateral and vertical extent of COPCs that exceed applicable SCGs. The scope of the SC investigation for John Street blended traditional on-site SC activities with off-site investigation. Hence, the proposed additional on-site and off-site investigation contained in the RI Work Plan (RIWP) will be combined with the prior SC investigations to fulfill the requirements for an RI for the Site.

The NYSDEC's decision key contained in Appendix 3C of DER-10 will be utilized to evaluate if a Fish and Wildlife Resources Impact Analysis (FWRIA) is needed. If a FWRIA is required in accordance with Appendix 3C, the analysis will be performed consistent with DER Section 3.10.

In addition to the proposed RI work, a soil vapor intrusion investigation is being conducted in the vicinity of the Site to evaluate potential migration of CVOCs in shallow groundwater into indoor air and an Interim Remedial Measure (IRM) pre-design investigation (PDI) has been conducted to evaluate CVOCs in shallow soil and groundwater on the Site.

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FIGURES

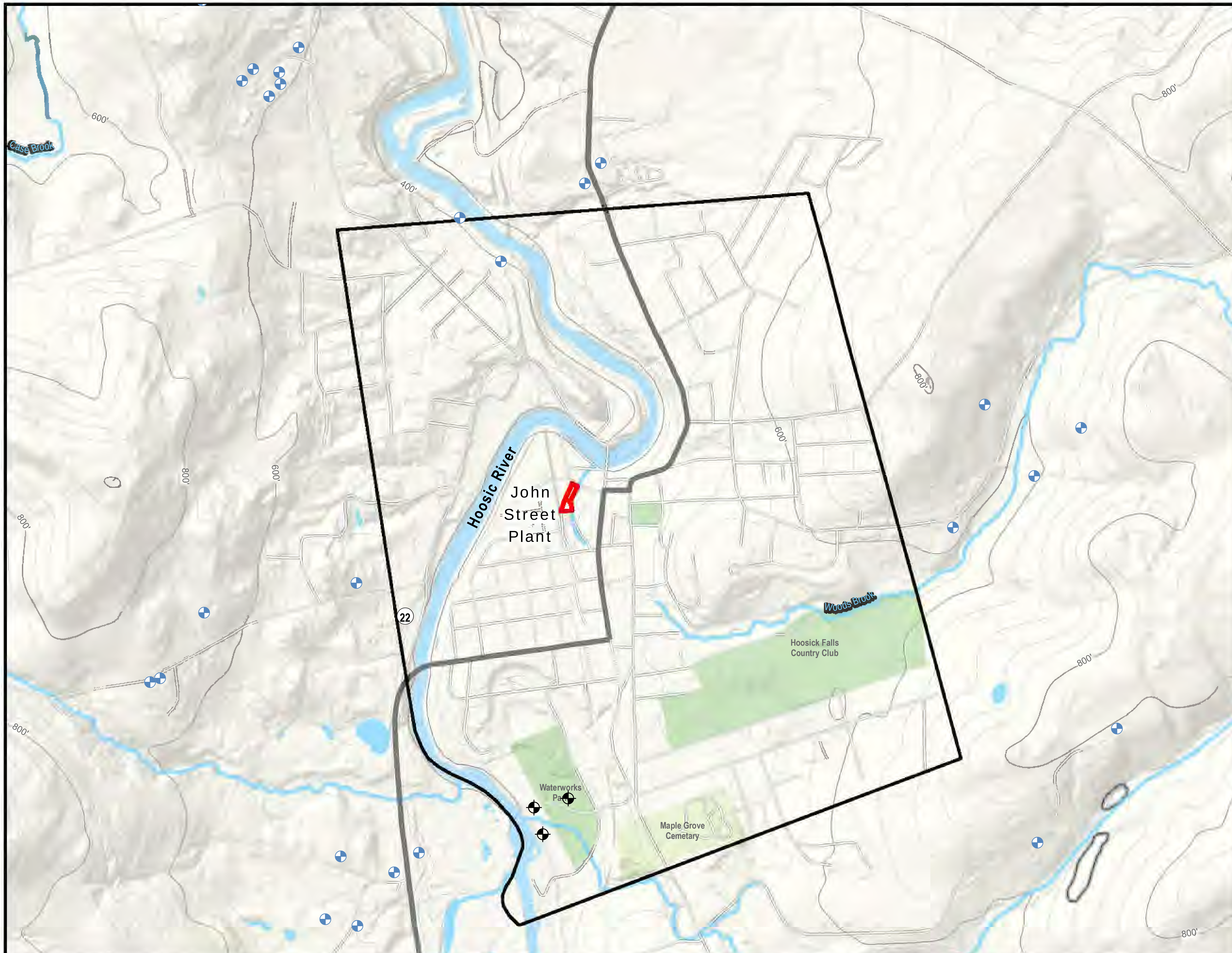
Legend

- Approximate Property Boundaries
- Village of Hoosick Falls Boundary
- State Route 22

0 0.05 0.1 0.2 0.3
Miles

Figure 1: Site Location
Village of Hoosick Falls
Town of Hoosick
New York

ERM



Legend

- Village of Hoosick Falls - Municipal Well Locations
- DEC-Reported Water Supply Wells
- Surface Water
- Stream (NHD)
- Approximate Property Boundaries
- Village of Hoosick Falls Boundary
- State Route

NOTES:

1. Stream data obtained from the National Hydrology Database (NHD) and digitized from 2014 New York State orthoimagery.

0 0.05 0.1 0.2 0.3
Miles

Figure 2: Potable Water Supply Well Locations, Topography, and Hydrology
Village of Hoosick Falls
Town of Hoosick
New York

ERM

80 1st Street

NYSDEC Spill #	Year	Material	Volume	Media
0701610	2007	Ethylene Glycol	4 Gal.	Soil
0103386	2001	Plating Solution	2,000 Gal.	Soil
9908956	1999	Metal Sludge	Unknown	Surface Water
9411306	1994	Wastewater	Unknown	Soil
9100195	1991	Wastewater	Unknown	Surface Water
9001067	1990	Sludge	100 Gal.	Soil
8710892	1988	Wastewater	1,200 Gal.	Surface Water

5 Church St.

NYSDEC Spill #	Year	Material	Volume	Media
1110925	2011	Unknown Petroleum	Unknown	Soil

35 Church St.

NYSDEC Spill #	Year	Material	Volume	Media
0410929	2005	Gasoline	Unknown	Soil

Legend

- Approximate Parcel Boundary
- Approximate Property Boundary
- Village of Hoosick Falls Boundary

0 50 100 200 300
Feet

Figure 3: Reported Spills
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Legend

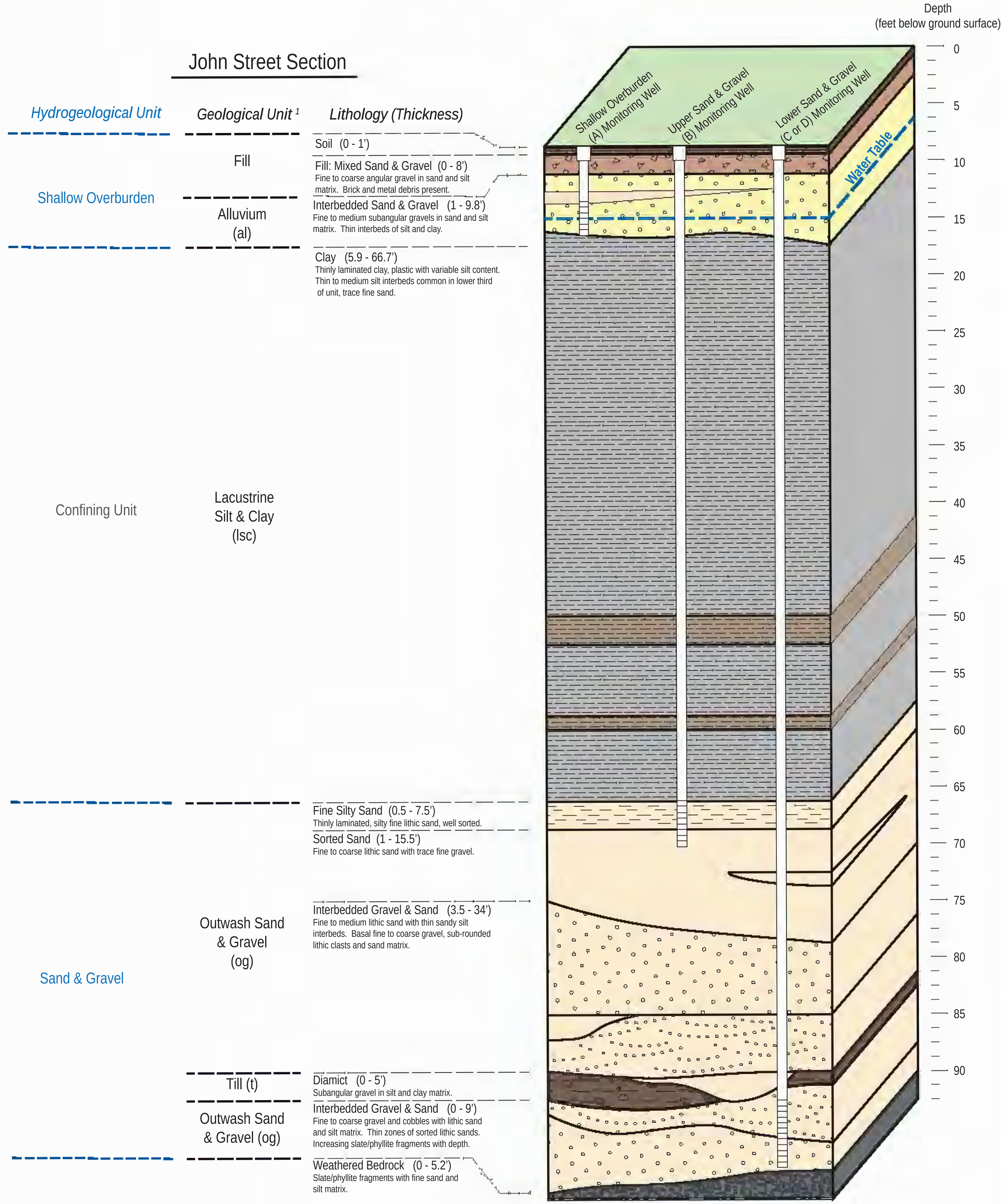
- Monitoring Well Location
- Surface Water / Sediment Location
- Surface Soil Sample Location
- Soil Vapor Location
- Soil Boring Location
- Advanced Profiling System (APS) Location
- Approximate Property Boundary

0 25 50 100 150 200
Feet

Figure 4: Site Characterization Sample Locations

Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM



Notes:

1 - Except for fill, geological unit nomenclature is from the Surficial Geologic Map of New York, Hudson-Mohawk Sheet (Caldwell and Dineen, 1987).

2 - Lithological descriptions, thickness ranges, and approximate water table elevations are from ERM's on-site boring logs.

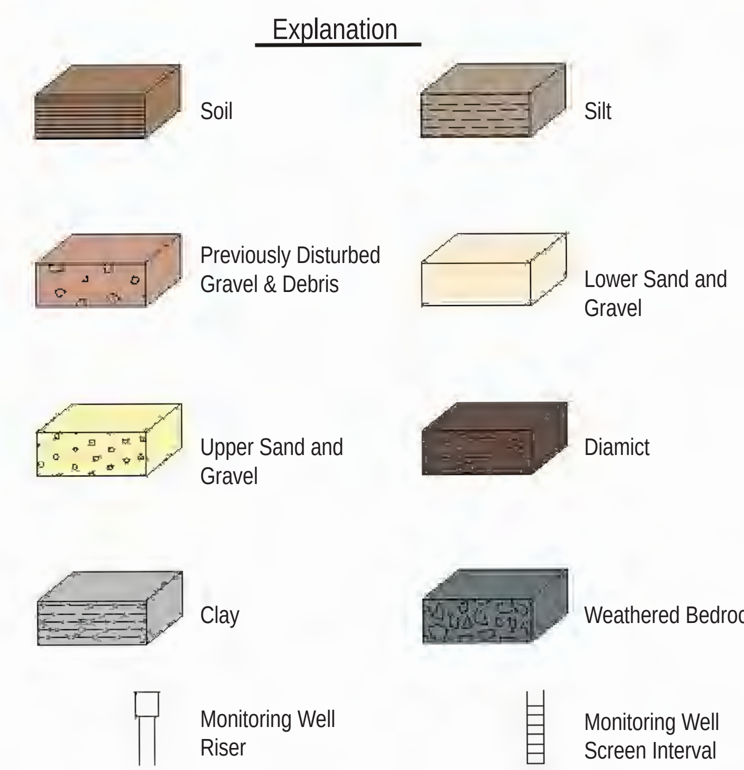
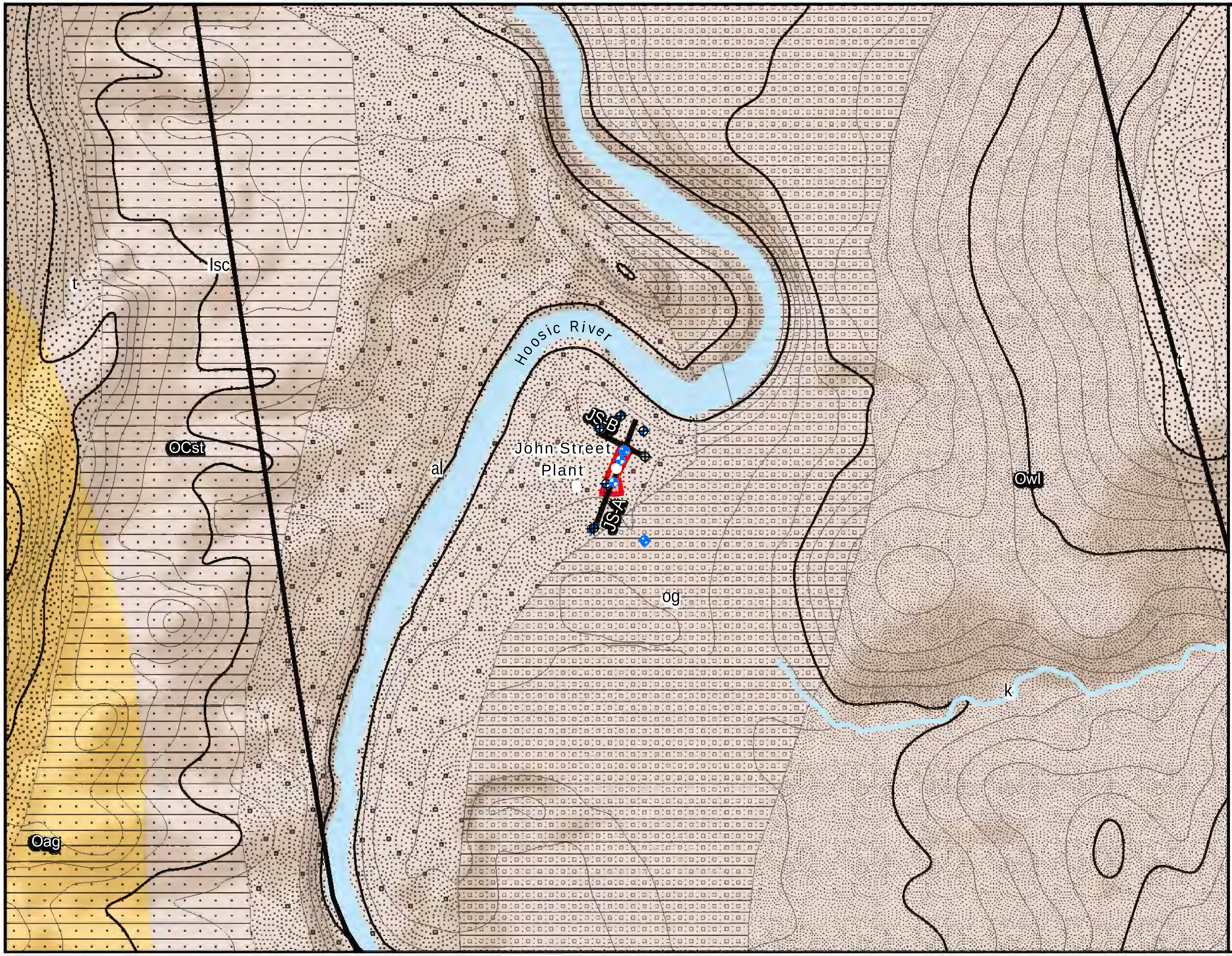


Figure 5: Typical Stratigraphic Sections
John Street Site
Village of Hoosick Falls
New York

ERM



Legend

- Monitoring Well Location
- Line of Section
- 20 ft Elevation Contours (USGS)
- 100 ft Elevation Contours (USGS)
- Approximate Property Boundaries
- Village of Hoosick Falls Boundary

Surficial Geology (NYSM)

- al - Aluvium
- k - Kame Deposits
- lsc - Lacustrine Silt and Clay
- og - Outwash Sand and Gravel
- t - Till

Bedrock Geology (NYSM)

- Owl - Walloomsac Formation
- OCst - Stockbridge Formation

NOTES:

1. Surficial and bedrock geology from the New York State Museum (NYSM).

N

0 250 500 1,000
Feet

Figure 6: Location of Geologic Cross Sections

Village of Hoosick Falls
New York

ERM

Legend

Interpolated Overburden Thickness Contours - 20 ft.

Interpolated Overburden Thickness Contours - 5 ft.

Village of Hoosick Falls Boundary

Approximate Property Boundaries

Interpolated Unit Thickness

High : 119'

Low : 23'

N

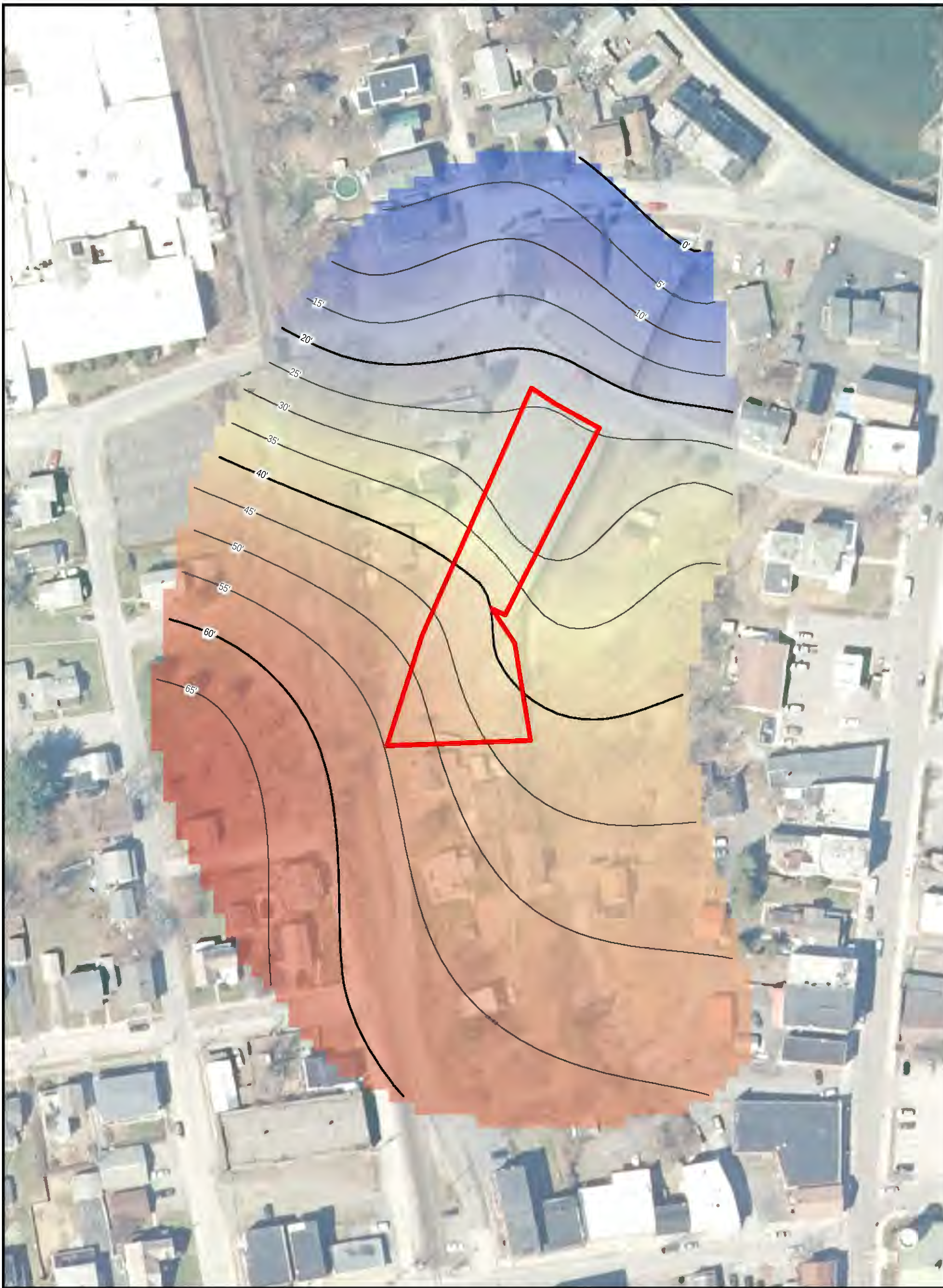
0 12.5 25 50 75 100

Feet

NOTES:
- Overburden thickness interpolated using GIS software from geophysical field surveys completed in November 2016 by Geophysical Applications Incorporated (GAI).

Figure 7: Overburden Unit Thickness
John Street Site
Village of Hoosick Falls
New York

ERM



Legend

Clay Unit Thickness Contour - 20 ft.

Clay Unit Thickness Contour - 5 ft.

Approximate Property Boundaries

Village of Hoosick Falls Boundary

Clay Unit Thickness

High : 70.0'

Low : 0.1'

N

0 15 30 60 90 120

Feet

NOTES:

- Clay unit thicknesses are derived from soil boring logs and interpolated using spline interpolation methods.

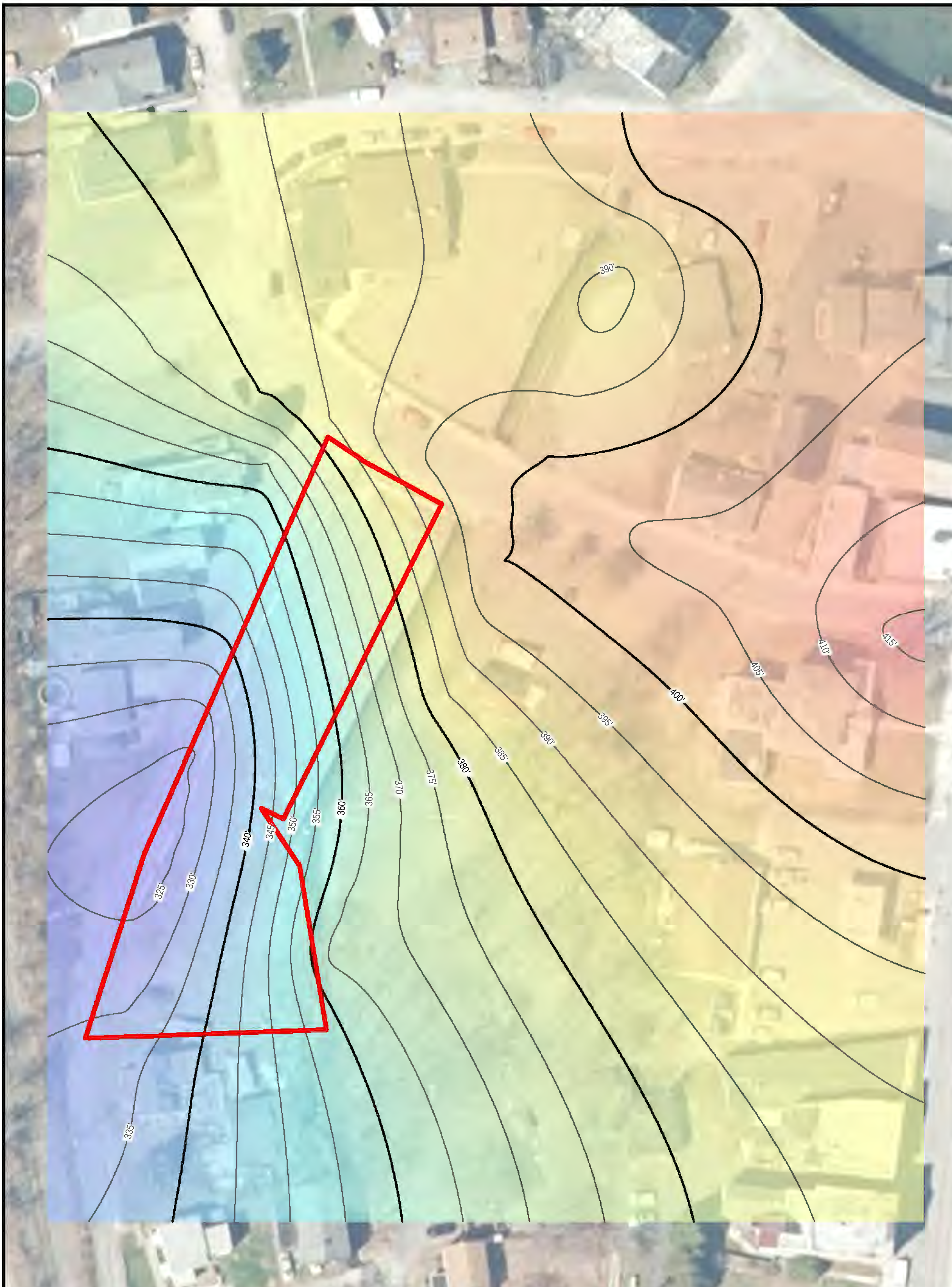
Figure 8: Clay Unit Distribution and Thickness

John Street Site

VIllage of Hoosick Falls

New York

ERM



Legend

- Interpolated Top of Bedrock Contours - 20 ft.
- Interpolated Top of Bedrock Contours - 5 ft.
- Village of Hoosick Falls Boundary
- Approximate Property Boundaries

Interpolated Bedrock Elevation

High : 417'

Low : 320'

N

0 12.5 25 50 75 100

Feet

Figure 9: Top of Bedrock Surface Elevation

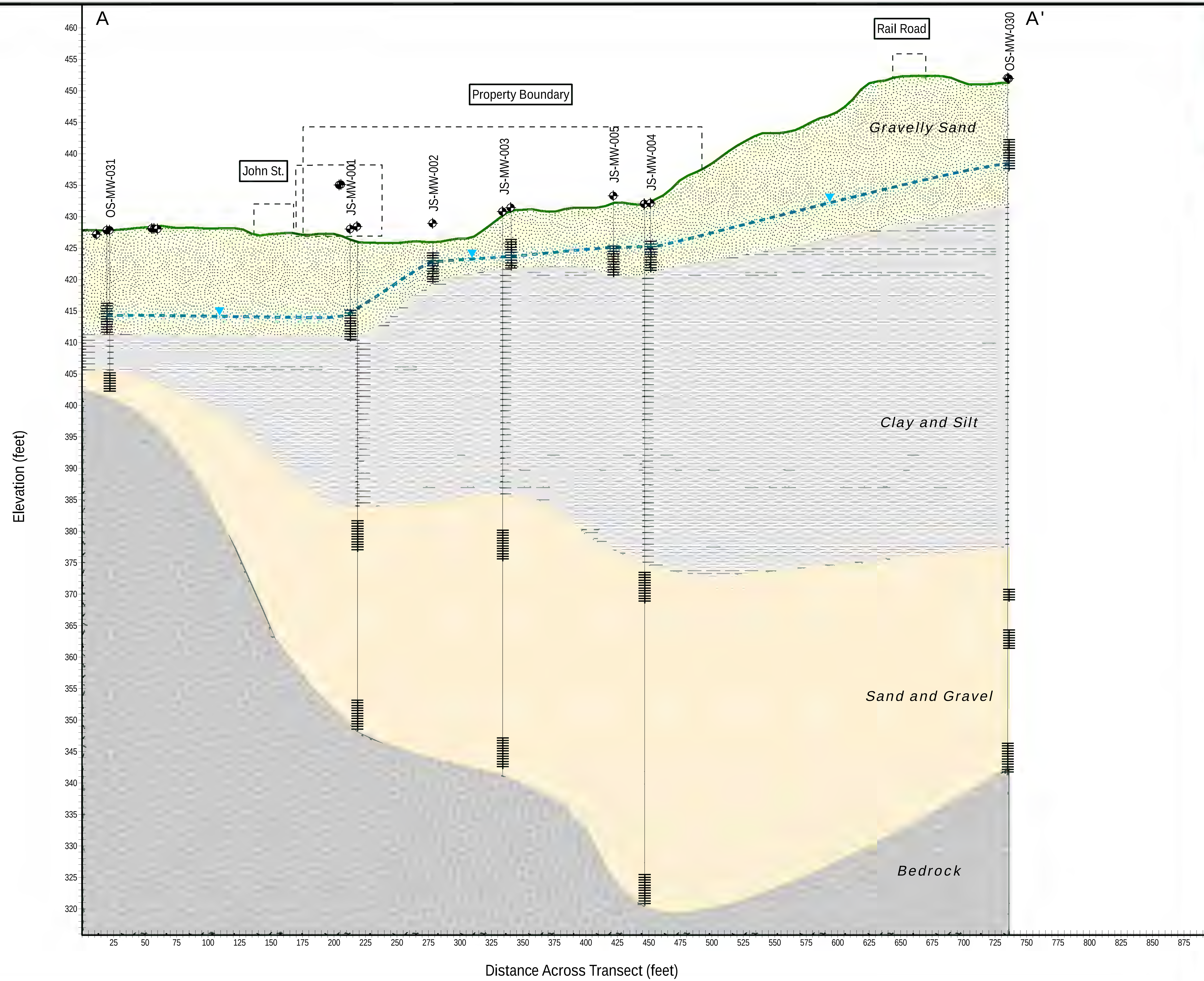
John Street Site
Village of Hoosick Falls
New York

NOTES:

- Bedrock surface interpolated from geophysical field surveys completed in November 2016 by Geophysical Applications Incorporated (GAI).

- Interpolated elevations reported as feet above mean sea level.

ERM



Legend

- Monitoring Wells
- Ground Surface
- Monitoring Well Screen
- Groundwater Elevation
- Approximate Water Table

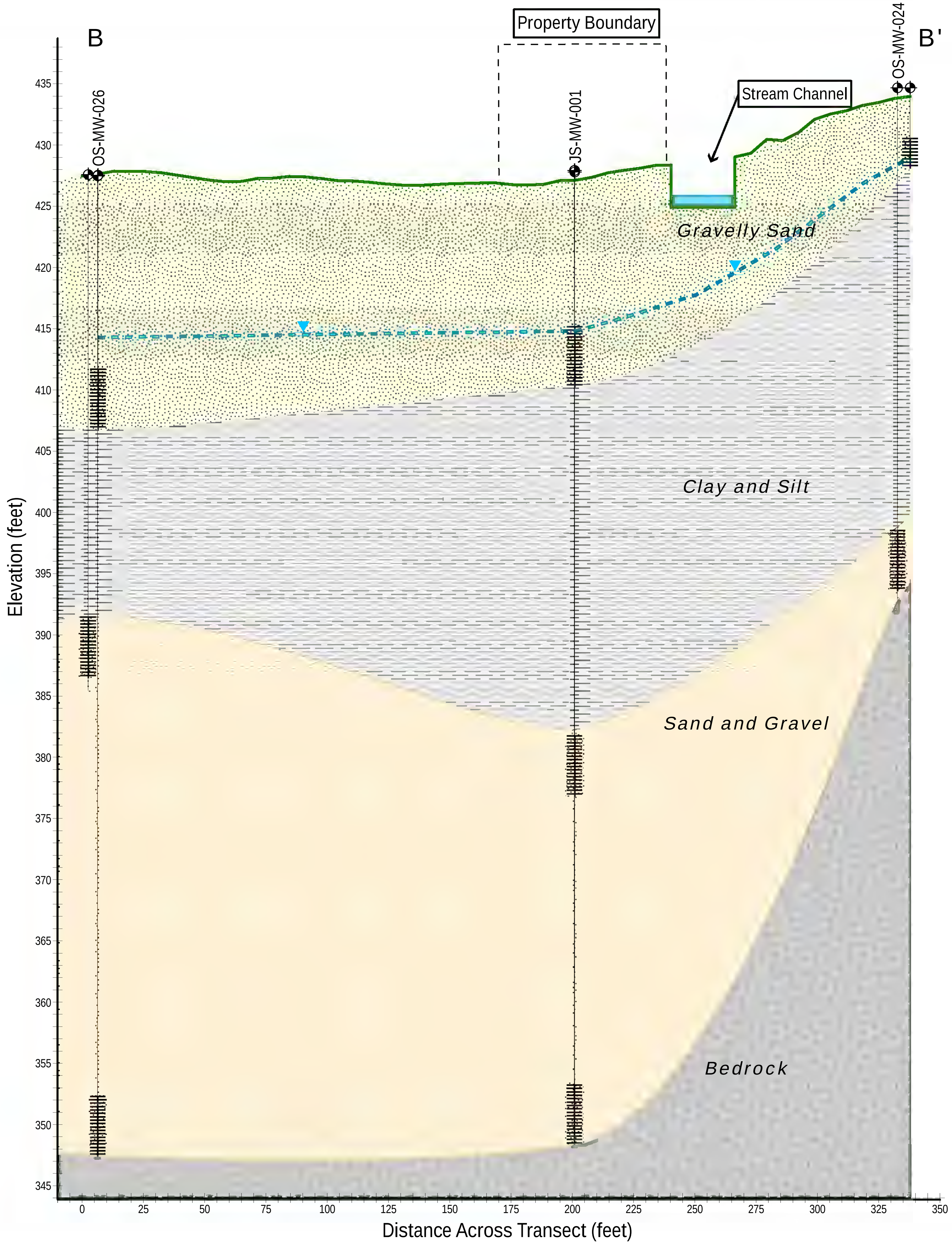
Predominant Geology Type

- Gravelly Sand
- Clay and Silt
- Sand and Gravel
- Bedrock

NOTES:
- Fill material or debris locally present near surface
-Vertical Exaggeration = 5X

Figure 10: Geologic Cross Section A-A'
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM



Legend

- Monitoring Wells
- Ground Surface
- Monitoring Well Screen
- Groundwater Elevation
- Approximate Water Table

Predominant Geology Type

- Gravelly Sand
- Clay and Silt
- Sand and Gravel
- Bedrock
- Surface Water

NOTES:
- Fill material or debris locally present near surface
- Vertical Exaggeration = 5X

Figure 11: Geologic Cross Section B-B'
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

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Legend

Groundwater Elevation (A Wells)

Stream Gauge Water Elevation

Groundwater Elevation Contour (20 ft Intervals)

Groundwater Elevation Contour (5 ft Intervals)

Approximate Property Boundary

NOTE:
- Groundwater elevation measured on 1/4/2017 and labeled as feet above mean sea level.

N

0 25 50 100 150 200
Feet

Figure 12: Shallow Overburden Potentiometric Surface
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Figure 13: Deep Overburden Groundwater Elevation and Vertical Gradient (A vs. B Wells)
Former Oak MaterialsFluorglas Division
John Street Property
Village of Hoosick Falls
Town of Hoosick
New York

Legend

Groundwater Elevation (C Wells) and Vertical Gradient

- Negative Gradient (-Δ)
- Positive Gradient (+Δ)
- Approximate Property Boundary

NOTES:
- Groundwater elevation measured on 1/4/2017 and labeled as feet above mean sea level.

Δ = (GW elevB-GW elevC)/(mid screenB-mid screenC)

N

0 37.5 75 150 225 300
Feet

Figure 14: Deep Overburden Groundwater Elevation and Vertical Gradient (B vs. C Wells)
Former Oak MaterialsFluorglas Division
John Street Property
Village of Hoosick Falls
Town of Hoosick
New York

ERM

Off-Site	Depth (ft)	PFOA ng/L	pH SU	TOC mg/L
OS-APS-024	40.2	630	8.2	0.8 J
OS-APS-025	16.2	320	7.4	1.5
	21.8	540	7.8	1.3
	26.3	440	7.8	1.4
OS-APS-026	15.2	370	7.3	1.6
	34.1	1800	8	1.4
	50.4	1900	8	1.7
	70.3	130	8	0.99 J
OS-APS-027	17.51	320	7.4	2
	105.7	260	8.1	0.74 J
OS-APS-028	89.9	2800	8.3	1.3
	94.4	3200	na	0.5 U

On-Site	Depth (ft)	PFOA ng/L	pH SU	TOC mg/L
JS-APS-001	14.1	2600 J	7.8	1.7
JS-APS-001	46.2	5300 J	8.2	1.5
JS-APS-001	53.5	1600	8.1	0.59 J
JS-APS-001	64.9	1300 J	8	1.9
JS-APS-001	76.9	330 (300 J)	8	0.5 U (0.5 U)
JS-APS-002	7.4	1500	7.5	1.2
JS-APS-002	47.4	4600	8.1	1.6
JS-APS-002	64.2	1300	8.2	0.76 J
JS-APS-002	69.4	920	8.1	0.5 U
JS-APS-002	83.9	450 J	8.1	1.6
JS-APS-003	8.8	580 J	7.7	0.94 J
JS-APS-003	48.3	3500	8	0.81 J
JS-APS-003	59.7	820	na	0.51 J
JS-APS-003	74.7	1100	8.1	0.73 J
JS-APS-003	88.5	1800	8.1	0.5 U
JS-APS-004	61.9	460	na	0.98 J
JS-APS-004	66.1	1600 J	8.2	0.9 J
JS-APS-004	79.4	3500 J	8.2	0.9 J
JS-APS-004	111.5	1900 J	8.1	1.1
JS-APS-005	10.3	290 J (310 J)	7.8	2.5 (1.6)
JS-APS-005	55	180	8	0.5 U
JS-APS-005	62.1	650	8.1	0.5 U
JS-APS-005	112.2	730	na	0.98 J

Legend

Advanced Profiling System (APS) Location

Approximate Property Boundary

NOTES:
PFOA - Perfluorooctanoic Acid
TOC - Total Organic Carbon
ng/L - nanogram per liter
mg/L - miligram per liter
SU - Standard Units
U - Compound not detected over detection limit
J - Approximate value
na - Sample not analyzed for parameter
Values in parentheses are the results from field duplicates
Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 15: PFOA, pH, and TOC Concentrations in Groundwater APS Samples

Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Off-Site	PFOA ng/L	pH SU	TOC mg/L
OS-MW-024A	na	na	na
OS-MW-024B	620	7.6	1
OS-MW-025A	640 J	6.9	1.2
OS-MW-025B	660 J	7.5	1.6
OS-MW-025C	610 J	7.5	1.2
OS-MW-026A	730 J	7	1.5
OS-MW-026B	3900 (3600)	7.7 (7.6)	1.3 (1.3)
OS-MW-026C	19 J	8	0.69 J
OS-MW-027A	600 J	7.2	1.9
OS-MW-027B	1 U	8.3	0.5 U
OS-MW-027C	25 J	8.7	0.5 U
OS-MW-028A	na	na	na
OS-MW-028B	1700	8.3	0.69 J
OS-MW-028C	4400	7.8	0.95
OS-MW-030A	na	na	na
OS-MW-030B	3800	8.8	1.9
OS-MW-030C	3900	8	0.83 J
OS-MW-030D	3700	8	0.86 J
OS-MW-031A	640 J	7.3	1.4
OS-MW-031B	980	7.4	14

On-Site	PFOA ng/L	pH SU	TOC mg/L
JS-MW-001A	5700 (6400)	7.4 (7.6)	1.8 (1.8)
JS-MW-001B	5900	7.8	6.4
JS-MW-001C	240	7.7	0.95 J
JS-MW-002A	830	7.3	2.3
JS-MW-003A	140 J	7.8	1.4
JS-MW-003B	1500	7.9	4.9
JS-MW-003C	2000	7.8	31.9
JS-MW-004A	300	7.5	1.5
JS-MW-004B	680	7.9	1.2
JS-MW-004C	4100	8.7	2.1
JS-MW-005A	200	7.4	1.7

Legend

Monitoring Well Location

Approximate Property Boundary

NOTES:
PFOA - Perfluorooctanoic Acid
TOC - Total Organic Carbon
ng/L - nanogram per liter
mg/L - miligram per liter
SU - Standard Units
U - Compound not detected over detection limit
J - Approximate value
na - Sample not analyzed for parameter
Values in parentheses are the results from field duplicates
Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 16: PFOA, pH, and TOC Concentrations in Groundwater Samples From Monitoring Wells
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Off-Site

	Depth Interval	PFOA µg/kg	pH SU	TOC mg/kg
OS-B-024	0 - 2 in	0.33 U	7.89	15700
	2 - 12 in	0.36 J	8.22	3540
	4 - 6 ft	5.1	na	na
	6 - 8 ft	1.2	8.65	1430
OS-B-025	0 - 2 in	0.37 U	7.89	4370
	2 - 12 in	0.33 U	8.21	7590
	11 - 13 ft	0.36 J	7.76	2940
OS-B-026	0 - 2 in	1.5	7.39	18800
	2 - 12 in	0.34 U	7.75	10000
	9 - 10 ft	0.35 U	7.69	695
OS-B-027	0 - 2 in	2.6	6.56	31900
	2 - 12 in	1.8	6.65	9030
	4 - 6 ft	0.36 U	6.89	857
OS-B-028	3 - 5 in	0.7	8.31	22400
	5 - 12 in	0.4 J	8.33	7830
	6 - 8 ft	0.5 J	8.9	4020
	12 - 16 ft	0.36 U	8.2	3710
OS-B-030	11.7 - 13.7 ft	0.31 U	na	na
	13.7 - 15 ft	0.48 J	na	na
OS-B-031	15 - 17 ft	0.53 J	na	na

On-Site

	Depth Interval	PFOA µg/kg	pH SU	TOC mg/kg
JS-SS-001	0 - 2 in	0.85	8.46	7830
	2 - 12 in	2.9	8.6	5520
JS-B-001	18 - 20 ft	1.4	8.29	1630
	60 - 64 ft	1.7	8.54	920
	76 - 76.5 ft	0.65	na	na
JS-SS-002	10 - 12 in	3.3	8.57	9520
	12 - 24 in	1.1	8.87	16800
JS-B-002	6 - 7 ft	9.9	na	na
	6 - 8 ft	na	6.81	8770 J
	9 - 10 ft	3.4	8.4	535 J
	60 - 64 ft	1.3	8.63	198 J
JS-B-003	0 - 2 in	6.8	8.35	20500
	2 - 12 in	5	8.33	22100
	9 - 11 ft	0.58 J	8.7	1750
	15 - 17 ft	0.42 U	8.44	2150
	85 - 87 ft	2	8.66	847
JS-B-004	0 - 2 in	0.33 U	8.13	15200
	2 - 12 in	0.32 U	7.64	11700
	10 - 12 ft	0.42 U	8.23	1130
JS-B-005	0 - 2 in	0.82	8.1	20600
	2 - 12 in	0.81	8.27	17700
	11 - 12 ft	0.44 U	8.27	1710
JS-B-006	18 - 19 ft	na	6.65	na
JS-B-007	6 - 7 ft	na	7.5	na
	17 - 18 ft	na	7.99	na
JS-B-008	5 - 7 ft	na	8.25 (8.23)	na
	18 - 19 ft	na	8.29	na
JS-B-009	11 - 12 ft	na	8.27	na
JS-B-010	15 - 17 ft	na	8.02	na
JS-B-011	15 - 17 ft	na	8.18	na
JS-B-012	12 - 14 ft	na	8.33	na

Legend

- Soil Boring Location
- Surface Soil Sample Location
- Approximate Property Boundary

NOTES:
PFOA - Perfluorooctanoic Acid
TOC - Total Organic Carbon
µg/kg - micrograms per kilogram
mg/kg - milligram per kilogram
SU - Standard Units
U - Compound not detected over detection limit
J - Approximate value
na - Sample not analyzed for parameter
Values in parentheses are the results from field duplicates
Aerial Imagery captured in 2014 from New York State

N
0 25 50 100 150 200
Feet

Figure 17: PFOA, pH, and TOC Concentrations in Soil Samples
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Off-Site	PFOA ng/L	pH SU	TOC mg/L
OS-SW-015	350	9.6	3.6
OS-SW-016	250	9.2	3.1
OS-SW-017	210	8.1	2.6
OS-SW-018	220	8	2.6

Legend

- Surface Water Sample Location
- Approximate Property Boundary

NOTES:
PFOA - Perfluorooctanoic Acid
TOC - Total Organic Carbon
ng/L - nanogram per liter
mg/L - milligram per liter
SU - Standard Units
U - Compound not detected over detection limit
J - Approximate value
Aerial Imagery captured in 2014 from New York State

N

0 25 50 100 150 200
Feet

Figure 18: PFOA, pH, and TOC Concentrations in Surface Water Samples
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Off-Site	PFOA µg/kg	pH SU	TOC mg/kg
OS-SED-017	0.89	7.82	4250
OS-SED-018	0.66	7.86	1670

Legend

Sediment Sample Location

Approximate Property Boundary

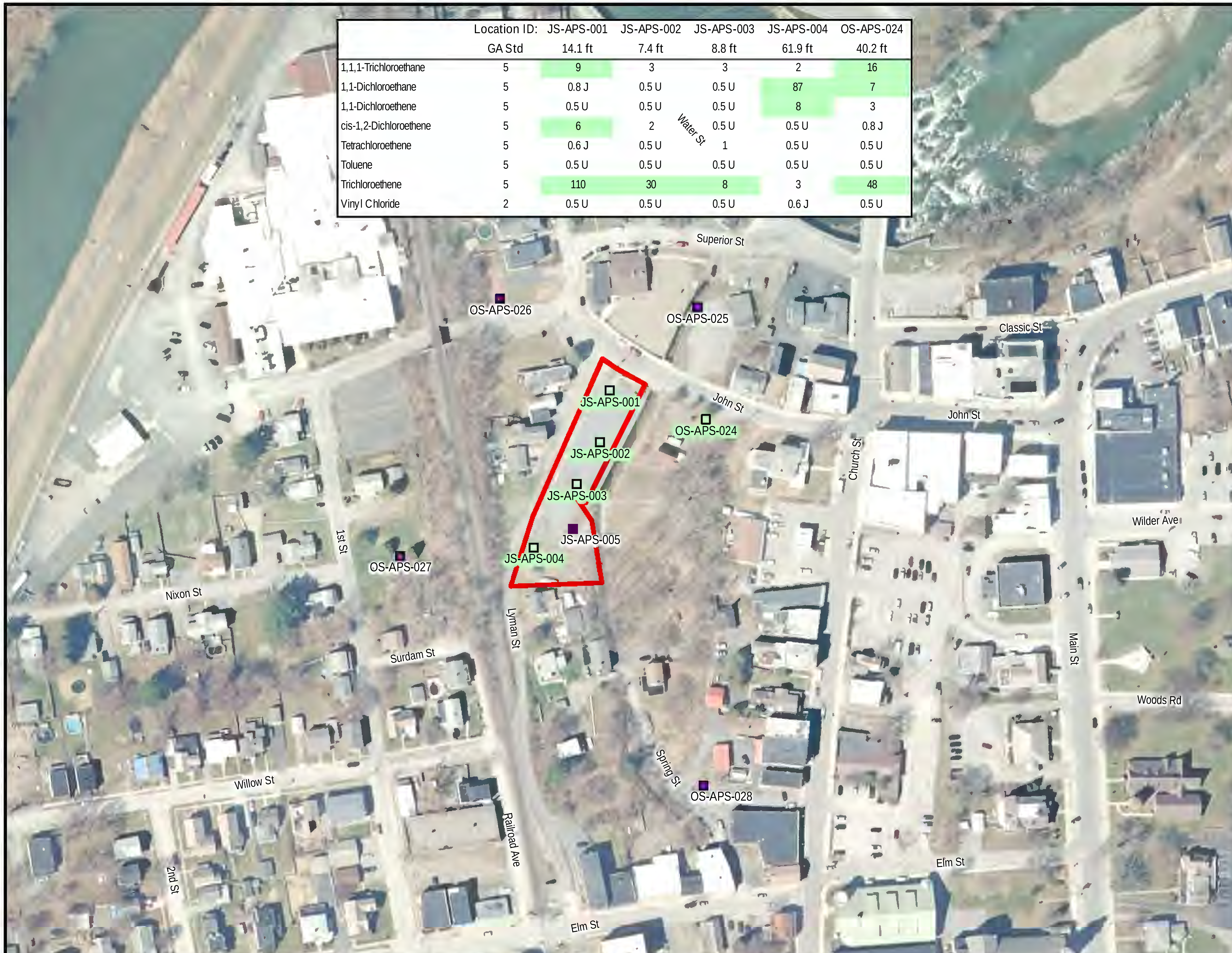
NOTES:
PFOA - Perfluorooctanoic Acid
TOC - Total Organic Carbon
µg/kg - micrograms per kilogram
mg/kg - milligram per kilogram
SU - Standard Units
U - Compound not detected over detection limit
J - Approximate value
Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 19: PFOA, pH, and TOC Concentrations in Sediment Samples
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Location ID:	GA Std	JS-APS-001 14.1 ft	JS-APS-002 7.4 ft	JS-APS-003 8.8 ft	JS-APS-004 61.9 ft	OS-APS-024 40.2 ft
1,1,1-Trichloroethane	5	9	3	3	2	16
1,1-Dichloroethane	5	0.8 J	0.5 U	0.5 U	87	7
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	8	3
cis-1,2-Dichloroethene	5	6	2	0.5 U	0.5 U	0.8 J
Tetrachloroethene	5	0.6 J	0.5 U	1	0.5 U	0.5 U
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	110	30	8	3	48
Vinyl Chloride	2	0.5 U	0.5 U	0.5 U	0.6 J	0.5 U



Legend

- Exceeds NYS GA Standard
- Advanced Profiling System (APS) location with VOC concentraions exceeding NYS GA Standards
- Advanced Profiling System (APS) location with VOC concentraions below NYS GA Standards
- Approximate Property Boundary

NOTES:
VOCs - Volatile Organic Compounds
Concentrations in units of micrograms per liter (µg/L)
U - Compound not detected over detection limit
J - Approximate value
Aerial Imagery captured in 2014 from New York State

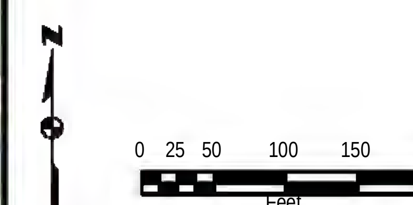


Figure 20: VOC Concentrations in APS Groundwater Samples that Exceed Class GA Standards or Guidance Values

Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

On-Site	Location ID: GA Std	JS-MW-001A µg/L	JS-MW-001B µg/L	JS-MW-001C µg/L	JS-MW-002A µg/L	JS-MW-003B µg/L	JS-MW-003C µg/L	JS-MW-004B µg/L
1,1,1-Trichloroethane	5	19 (19)	300	2	1	190	3	8
1,1-Dichloroethane	5	1 (2)	100	290	0.6 J	110	8	150
1,1-Dichloroethene	5	0.6 J	33	53	0.5 U	45	3	35
1,2-Dichloroethane	0.6	0.5 U (0.5 U)	1	0.5 U	0.5 U	0.8 J	0.5 U	0.5 U
cis 1,2-Dichloroethene	5	8 (8)	18	3	4	6	1	0.5 U
Trichloroethene	5	130 (130)	1100	580	21	810	570	9
Vinyl Chloride	2	0.5 U (0.5 U)	2	3	0.9 J	1	0.5 U	2

Off-Site	Location ID: GA Std	OS-MW-024B µg/L	OS-MW-025B µg/L	OS-MW-025C µg/L	OS-MW-026B µg/L	OS-MW-031A µg/L	OS-MW-031B µg/L
1,1,1-Trichloroethane	5	10	15	8	1700 (1500)	160	0.5 U
1,1-Dichloroethane	5	33	0.6 J	2	150 (140)	2	17
1,1-Dichloroethene	5	17	0.9 J	0.5 U	72 (60)	4	0.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.9 J (1 J)	0.5 U	0.5 U
cis 1,2-Dichloroethene	5	0.5 U	0.6 J	0.5 U	11 (10)	0.5 U	0.5 U
Trichloroethene	5	2	37	9	1300 (1100)	56	0.5 U
Vinyl Chloride	2	0.9 J	0.5 U	0.5 U	2 (1 J)	0.5 U	0.5 U

Legend

- Exceeds NYS GA Standard
- Monitoring Well Location
- Approximate Property Boundary

NOTES:
VOCs - Volatile Organic Compounds
Concentrations in units of micrograms per liter (µg/L)
U - Compound not detected over detection limit
J - Approximate value
Values in parentheses are the results from field duplicates
Aerial Imagery captured in 2014 from New York State

N

0 25 50 100 150 200
Feet

Figure 21: VOC Concentrations in Groundwater Monitoring Well Samples That Exceed Class GA Standards or Guidance Values

Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Legend

- Exceeds NYS Industrial Use SCO
- Soil boring location with VOC concentrations exceeding potentially applicable SCOs
- Soil boring location with VOC concentrations below potentially applicable SCOs
- Surface Soil Sample Location
- Approximate Property Boundary

NOTES:

VOCs - Volatile Organic Compounds
NYS SCOs - New York State Soil Cleanup Objectives
Concentrations in units of micrograms per kilogram (µg/kg)
Aerial Imagery captured in 2014 from New York State

N

0 25 50 100 150 200
Feet

Figure 22: VOC Concentrations in Soil SamplesThat Exceed Potentially Applicable NYS Use SCOs
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

On-Site	TCE µg/m3	1,1,1-TCA µg/m3
Ambient Air	1.1 U	1.1 U
SV-01	3500	3700
SV-01 dup	3500	3600
SV-03	210	830
SV-06	10	170
SV-07	43	810
SV-08	2.5 J	1.1 U

Legend

Soil Vapor Location

Approximate Property Boundary

NOTES:
TCE - Trichloroethene
1,1,1-TCA - 1,1,1-Trichloroethane
µg/m3 - micrograms per cubic meter
U - Compound not detected over detection limit
J - Approximate value
Aerial Imagery captured in 2014 from New York State

N

0 25 50 100 150 200
Feet

Figure 23: VOC Concentrations (TCE and 1,1,1-TCA) in Soil Vapor Samples

Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Off-Site

Location ID:	OS-B-025	OS-B-025
Depth Interval	0 - 2 in	2 - 12 in
Benzo(a)anthracene	2500	1300
Benzo(a)pyrene	2900	1700
Benzo(b)fluoranthene	4800	2900
Benzo(k)fluoranthene	1800	910
Chrysene	3200	1700
Dibenz(a,h)anthracene	670	390
Indeno(1,2,3-cd)pyrene	2500	1400

On-Site

Location ID:	JS-B-004
Depth Interval	2 - 12 in
Benzo(a)anthracene	7100
Benzo(a)pyrene	7800
Benzo(b)fluoranthene	9500
Dibenz(a,h)anthracene	1300

Legend

Exceedances:

- Exceeds NYS Industrial Use SCO
- Exceeds NYS Commercial Use SCO
- Exceeds NYS Restricted Residential Use SCO
- Exceeds NYS Residential Use SCO
- Soil boring location with SVOC concentrations exceeding potentially applicable SCOs
- Soil boring location with SVOC concentrations below potentially applicable SCOs
- Surface Soil Sample Location
- Approximate Property Boundary

NOTES:

SVOCs - Semivolatile Organic Compounds
NYS SCOs - New York State Soil Cleanup Objectives
Concentrations are in units of micrograms per kilogram (µg/kg)
U - Compound not detected over detection limit
J - Approximate value
Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 24: SVOC Concentrations in Soil Samples that Exceed Potentially Applicable NYS Use SCOs

Former Oak Materials Fluorglas Division John Street Site
Village of Hoosick Falls
New York

ERM

	Location ID:	JS-APS-001	JS-APS-002	JS-APS-003	JS-APS-004	JS-APS-005	OS-APS-024	OS-APS-025	OS-APS-026	OS-APS-027	OS-APS-028
	GA Std	14.1 ft	7.4 ft	8.8 ft	61.9 ft	10.3 ft	40.2 ft	16.2 ft	15.2 ft	17.51 ft	89.9 ft
Cadmium	0.005	0.00049 U	0.0057 J	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U
Iron	0.3	0.532	2.54	1.65	0.313 J	0.385 J	0.114 J	0.147 J	0.118 J	2.29	0.0747 U
Manganese	0.3	0.0733	0.489	0.16	0.644	0.02	0.346	0.0145	0.0165	0.0777	0.413
Selenium	0.01	0.0161 J	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Sodium	20	78.2	96.6	103	109	64.9	180	66.6	180	283	51.6

Legend

- Exceeds NYS GA Standard
- Advanced Profiling System (APS) location
- Approximate Property Boundary

NOTES:
Concentrations are in units of milligrams per liter (mg/L)
U - Compound not detected over detection limit
J - Approximate value
Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 25: Metal Concentrations in Groundwater APS Samples that Exceed Class GA Standards or Guidance Values

Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

Off-Site		Location ID:	OS-MW-030B	OS-MW-031B
	GA Guidance	GA Standard	mg/L	mg/L
Barium		1	1.14	0.205
Chromium		0.05	0.0197 J	0.0594
Lead		0.025	0.0525	0.054
Magnesium	35		52.9	64.6

On-Site	Location ID:	JS-MW-001A
	GA Standard	mg/L
Selenium	0.01	0.0345 J (0.032 J)

Legend

Exceedances:

- Exceeds NYS GA Standard
- Exceeds NYS GA Guidance
- Monitoring well locations with metal concentrations exceeding applicable standards or guidance
- Monitoring well locations with metal concentrations below applicable standards or guidance
- Approximate Property Boundary

NOTES:
Concentrations in units of milligrams per liter (mg/L)
J - Approximate value
Values in parentheses are the results from field duplicates
Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 26: Metal Concentrations in Groundwater Samples from Monitoring Wells That Exceed Class GA Standards or Guidance Values

Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

On-Site	Depth Interval	Copper mg/kg	Nickel mg/kg
JS-B-002	6 - 8 ft	308	28.1
JS-B-003	2 - 12 in	189	313
JS-B-005	0 - 2 in	734	27.3

Legend

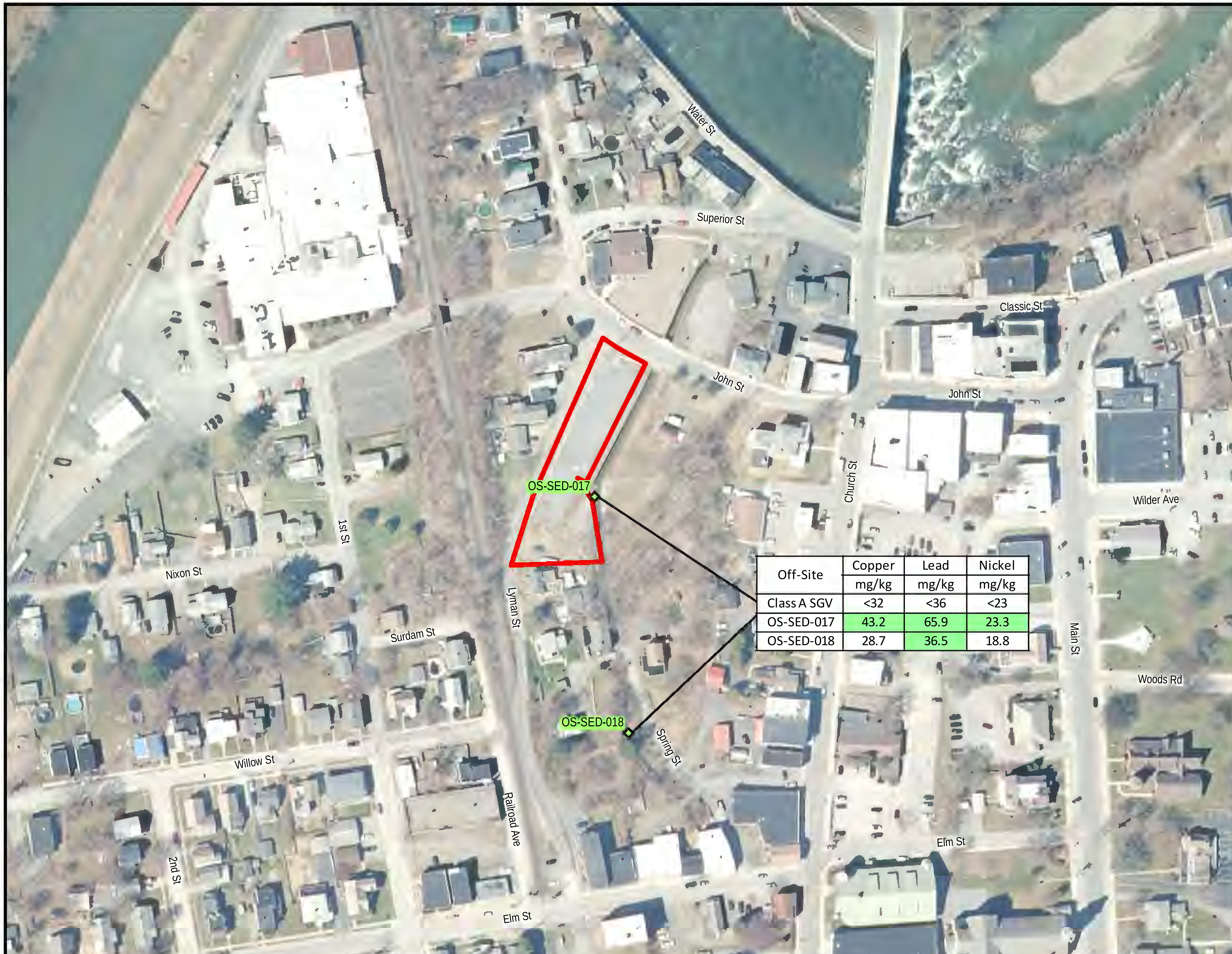
- Exceeds NYS Commercial Use SCO
- Soil boring location with metal concentrations exceeding potentially applicable SCOs
- Soil boring location with metal concentrations below potentially applicable SCOs
- Surface Soil Sample Location
- Approximate Property Boundary

NOTES:
NYS SCOs - New York State Soil Cleanup Objectives
Concentrations are in units of milligrams per kilogram (mg/kg)
U - Compound not detected over detection limit
J - Approximate value
Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 27: Metal Concentrations in Soil Samples that Exceed Potentially Applicable Use SCOs
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM



Off-Site	Copper mg/kg	Lead mg/kg	Nickel mg/kg
Class A SGV	<32	<36	<23
OS-SED-017	43.2	65.9	23.3
OS-SED-018	28.7	36.5	18.8

Legend

- Sediment Sample Location
- Exceeds NYS Class A SGV
- Approximate Property Boundary

NOTES:
- Concentrations are in units of milligrams per kilogram (mg/kg)
- U = Compound not detected over detection limit
- J = Approximate value
- Aerial Imagery captured in 2014 from New York State

0 25 50 100 150 200
Feet

Figure 28: Metal Concentration in Sediment Samples that Exceed Class A Soil Guidance Values (SGVs)
Former Oak Materials Fluorglas Division
John Street Site
Village of Hoosick Falls
New York

ERM

TABLES

Table 1
Summary of Records Search
Former Oak Materials Fluorglas Division - John Street

Site Name & Address	EDR Radius Map™ Report with Geocheck®	EDR Historical Topographic Maps	EDR Historical Sanborn Maps	Historical Aerial Photographs	EDR City Directories	On-Line Historical Images
John Street Site Hoosick Falls, New York	**9 Railroad Avenue**, 0.05 miles SSW of the site, spill date 2007, spill closed in 2007. **5 Church Street**, 0.055 miles ENE of the site, spill closed 2011. **25 Church Street**, 0.056 miles E of the site, listed as a handler of large quantity generator of hazardous waste. Spill date 2010, spill closed 2010. **35 Church Street**, 0.059 miles E of the site, spill date 2005, spill closed 2005. **5 Church Street**, 0.062 miles NE of site, listed as a historical cleaner in 2010, 2011, and 2012. **4th Street and Willow Street**, 0.067 miles SSW of site, spill date 1998, spill closed 1998. **Allied Signal Fluorgas River Rd Plant 3.** Spill date 1999 spill closed 1999. Spill closed 1994. **Hoosick Falls Bus Garage**, 0.068 miles NE of the Site. No closed spill date recorded. **Oak Mitsui 1st Street.** , 0.069 miles WNW of site, spills closed 1990, 1991, 1993, 1999, 2007. **Oak Mitsui Fish Kill 1st St Sewer Hoosic River.** Spill closed 2002. **Oak Mitsui.** Tank close date 1987. Listed as LQG of Hazardous waste. **John St Fluorgas, Allied Signal Inc.** 0.112 miles E of site, tank closed removed 1995. EDR report show the tank location in the middle of Church Street at the intersection of John and Church Streets by Key Bank, based on the coordinates provided in the EDR report. **Allied Signal Laminate Systems** 0.19 miles ENE of site, tank was located at Mechanic Street property and closed in place 1999	ERM reviewed historical topographic maps dated 1897, 1900, 1943, 1944, 1946, 1980, 1995, and 2013.	ERM reviewed historical Sanborn maps dated 1884, 1891, 1897, 1904, 1910, and 1945.	ERM reviewed historical aerial photographs dated 1942, 1951, 1986, 1994, 2006, 2009, and 2011.	ERM reviewed city directories for the subject property dated 1992, 1999, 2003, 2008, and 2013.	The historical images available and reviewed on Google Earth cover the years 1994, 2006, 2007, 2008, 2009, 2011, and 2014. One building is visible on site for all years except 2014. The 2014 image shows the property with no building and covered with gravel.

*Unmapped - ERM did not review historical Sanborn Maps. The Certified Sanborn Map report lists the property as "unmapped"

** **EDR Radius Map™ Report with Geocheck® -** Information gathered using the following databases: RCRA-CESQG, NY AST, FINDS, NY Manifest, ECHO, NY UST, NY LTANKS, NY AIRS, ICIS

Table 2
Summary of Site Characterization Tasks
Former Oak Materials Fluorglas Division - John Street

Site Characterization Tasks	*Methods/Rationale*	*Investigation Areas*
Surface Geophysics	• Seismic refraction profiling • Electrical resistivity imaging/profiling • Very low frequency (VLF) conductivity • Provide information on thickness of overburden, depth to groundwater, depth to competent bedrock, and potential fractures	Yes • Resistivity and VLF applications limited due to cultural interferences
Surface / Near Surface soil sampling	• Stainless steel hand auger for surface soil samples 0 to 2 inches below vegetative cover • Stainless steel hand auger for near surface soil samples 2 to 12 inches below vegetative cover • Characterization of soil quality	Yes • 2 On site location
Subsurface soil sampling	• Soil borings advanced to the top of bedrock or drilling refusal • Boreholes sampled continuously • Headspace PID readings • Characterization of soil quality	Yes • 12 On site locations • 7 Off site locations
Permeability Profiling and Initial Groundwater Sampling	• Waterloo APS Profiling to log relative permeability of overburden materials • Collect initial groundwater samples • Develop approach/construction for fixed monitoring well installations	Yes • 5 On site APS locations • 6 Off site APS locations
Fixed monitoring well installations and groundwater sampling	• Direct push and mud rotary drilling methods for construction of monitoring wells • Low-flow purging/sampling using peristaltic or inertial pumping systems • Characterization of groundwater quality	Yes • Screen interval (A) straddling or just below water table • Screen interval (B) below the clay unit • Screen intervals (C) and (D) near the bottom of overburden • 11 On site wells • 20 Off site wells
Surface water/sediment sampling draft	• Collected directly into containers (surface water) and in upper six inches (sediment) • Characterization of surface water and sediment quality	Yes • No on site surface water • 4 Surface water sample locations off site • 2 Off site sediment sample locations

Table 3
Summary of Site Characterization Samples
Former Oak Materials Fluorglas Division - John Street

Site Location	Sample Name	Collected	PFAS	VOCs	Metals	Cyanide	SVOCs	TOC	PCBs	Pesticides	pH	TO-15
Soil												
John Street	JS-B-001(18'-19')	8/16/2016		X								
	JS-B-001(18'-20')	8/16/2016	X		X	X	X	X	X	X	X	
	JS-B-001(60'-64')	8/16/2016	X	X	X	X	X	X	X	X	X	
	JS-B-001(76-76.5)	8/17/2016	X									
	JS-B-002(60-64)	8/12/2016	X	X	X	X	X	X	X	X	X	
	JS-B-002(6-7)	8/11/2016	X									
	JS-B-002(6-8)	8/11/2016		X	X	X	X	X	X	X	X	
	JS-B-002(9-10)	8/11/2016	X	X	X	X	X	X	X	X	X	
	JS-B-003(0-2")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-B-003(2-12")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-B-003(9-11)	8/8/2016	X	X	X	X	X	X	X	X	X	
	JS-B-003(15-17)	8/8/2016	X	X	X	X	X	X	X	X	X	
	JS-B-003(85-87)	8/11/2016	X		X	X	X	X	X	X	X	
	JS-B-003(86-87)	8/11/2016		X								
	JS-B-004(0-2")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-B-004(2-12")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-B-004(10-11)	8/17/2016		X								
	JS-B-004(10-12)	8/17/2016	X		X	X	X	X	X	X	X	
	JS-B-005(0-2")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-B-005(2-12")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-B-005(11'-12')	8/23/2016	X	X	X	X	X	X	X	X	X	
	JS-B-006(18-19)	11/29/2016		X							X	
	JS-B-007(17-18)	11/30/2016		X							X	
	JS-B-007(6-7)	11/30/2016		X							X	
	JS-B-008(18-19)	12/1/2016		X							X	
	JS-B-008(5-7)	12/1/2016		X							X	
	JS-B-009(11-12)	11/30/2016		X							X	
	JS-B-010(15-17)	11/29/2016		X							X	
	JS-B-011(15-17)	11/29/2016		X							X	
	JS-B-012(12-14)	11/30/2016		X							X	
	JS-SS-001(0-2")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-SS-001(2-12")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-SS-002(10-12")	7/21/2016	X	X	X	X	X	X	X	X	X	
	JS-SS-002(12-24")	7/21/2016	X	X	X	X	X	X	X	X	X	
	OS-B-024(0-2")	9/13/2016	X	X	X	X	X	X	X	X	X	

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Summary of Site Characterization Samples
Former Oak Materials Fluorglas Division - John Street

Site Location	Sample Name	Collected	PFAS	VOCs	Metals	Cyanide	SVOCs	TOC	PCBs	Pesticides	pH	TO-15
Soil												
John Street	OS-B-024(2"-12")	9/13/2016	X	X	X	X	X	X	X	X	X	
	OS-B-024(4-6)	9/30/2016	X	X								
	OS-B-024(6-8)	9/30/2016	X	X	X	X	X	X	X	X	X	
	OS-B-025(0-2")	9/22/2016	X	X	X	X	X	X	X	X	X	
	OS-B-025(2"-12")	9/22/2016	X	X	X	X	X	X	X	X	X	
	OS-B-025(11'-13')	10/11/2016	X	X	X	X	X	X	X	X	X	
	OS-B-026(0-2")	9/22/2016	X					X			X	
	OS-B-026(2"-12")	9/22/2016	X					X			X	
	OS-B-026(9'-10')	10/11/2016	X					X			X	
	OS-B-027(0"-2")	9/26/2016	X				X				X	
	OS-B-027(2"-12")	9/26/2016	X				X				X	
	OS-B-027(4'-6')	10/13/2016	X				X				X	
	OS-B-028(3"-5")	9/26/2016	X	X	X	X	X	X	X	X	X	
	OS-B-028(5"-12")	9/26/2016	X	X	X	X	X	X	X	X	X	
	OS-B-028(6-8)	10/6/2016	X	X	X	X	X	X	X	X	X	
	OS-B-028(12-16)	10/6/2016	X	X	X	X	X	X	X	X	X	
	OS-B-030(11.7-13.7)	11/15/2016	X	X	X							
	OS-B-030(13.7-15)	11/15/2016	X	X	X							
	OS-B-031(15-17')	11/29/2016	X					X				

Table 3
Summary of Site Characterization Samples
Former Oak Materials Fluorglas Division - John Street

Site Location	Sample Name	Collected	PFAS	VOCs	Metals	Cyanide	SVOCs	TOC	PCBs	Pesticides	pH	TO-15
						Ground Water						
	JS-APS-001(14.1)	8/9/2016	X	X	X	X	X	X	X	X	X	
	JS-APS-001(46.2)	8/9/2016	X					X			X	
	JS-APS-001(53.5)	8/10/2016	X					X			X	
	JS-APS-001(64.9)	8/10/2016	X					X			X	
	JS-APS-001(76.9)	8/10/2016	X					X			X	
	JS-APS-002(47.4)	8/5/2016	X					X			X	
	JS-APS-002(64.2)	8/8/2016	X					X			X	
	JS-APS-002(69.4)	8/8/2016	X					X			X	
	JS-APS-002(7.4)	8/4/2016	X	X	X	X	X	X	X	X	X	
	JS-APS-002(83.9)	8/9/2016	X					X			X	
	JS-APS-003(48.3)	8/3/2016	X					X			X	
	JS-APS-003(59.7)	8/3/2016	X					X				
	JS-APS-003(74.7)	8/4/2016	X					X			X	
	JS-APS-003(8.8)	8/3/2016	X	X	X	X	X	X	X	X	X	
	JS-APS-003(88.5)	8/4/2016	X					X			X	
	JS-APS-004(111.5)	8/9/2016	X					X			X	
	JS-APS-004(61.9)	8/8/2016	X	X	X		X	X	X	X		
	JS-APS-004(66.1)	8/9/2016	X					X			X	
	JS-APS-004(79.4)	8/9/2016	X					X			X	
	JS-APS-005(10.3)	8/3/2016	X	X	X	X	X	X	X	X	X	
	JS-APS-005(112.2)	8/4/2016	X					X				
John Street	JS-APS-005(55)	8/4/2016	X					X			X	
	JS-APS-005(62.1)	8/4/2016	X					X			X	
	JS-MW-001A	1/9/2017	X	X	X			X			X	
	JS-MW-001B	1/4/2017	X	X	X			X			X	
	JS-MW-001C	1/10/2017	X	X	X			X			X	
	JS-MW-002A	1/4/2017	X	X	X			X			X	
	JS-MW-003A	1/10/2017	X	X	X			X			X	
	JS-MW-003B	1/10/2017	X	X	X			X			X	
	JS-MW-003C	1/4/2017	X	X	X			X			X	
	JS-MW-004A	1/10/2017	X	X	X			X			X	
	JS-MW-004B	1/4/2017	X	X	X			X			X	
	JS-MW-004C	1/10/2017	X	X	X			X			X	
	JS-MW-005A	1/4/2017	X	X	X			X			X	
	OS-APS-024(40.2)	9/28/2016	X	X	X	X	X	X	X	X	X	
	OS-APS-025(16.2)	10/4/2016	X	X	X	X	X	X	X	X	X	
	OS-APS-025(21.8)	10/4/2016	X					X			X	
	OS-APS-025(26.3)	10/4/2016	X					X			X	
	OS-APS-026(15.2)	10/5/2016	X	X	X	X	X	X	X	X	X	
	OS-APS-026(34.1)	10/5/2016	X					X			X	
	OS-APS-026(50.4)	10/5/2016	X					X			X	
	OS-APS-026(70.3)	10/5/2016	X					X			X	
	OS-APS-027(105.7)	10/6/2016	X					X			X	

Table 3
Summary of Site Characterization Samples
Former Oak Materials Fluorglas Division - John Street

Site Location	Sample Name	Collected	PFAS	VOCs	Metals	Cyanide	SVOCs	TOC	PCBs	Pesticides	pH	TO-15
Ground Water												
	OS-APS-027(17.51)	10/6/2016	X	X	X	X	X	X	X	X	X	
	OS-APS-028(89.9)	9/29/2016	X	X	X			X			X	
	OS-APS-028(94.4)	10/3/2016	X					X				
	OS-MW-024B	1/6/2017	X	X	X			X			X	
	OS-MW-025A	1/6/2017	X	X	X			X			X	
	OS-MW-025B	1/9/2017	X	X	X			X			X	
	OS-MW-025C	1/6/2017	X	X	X			X			X	
	OS-MW-026A	1/6/2017	X	X	X			X			X	
	OS-MW-026B	1/6/2017	X	X	X			X			X	
	OS-MW-026C	1/9/2017	X	X	X			X			X	
	OS-MW-027A	1/10/2017	X	X	X			X			X	
John Street	OS-MW-027A	1/11/2017		X								
	OS-MW-027AI	1/11/2017		X								
	OS-MW-027B	1/10/2017	X	X	X			X			X	
	OS-MW-027C	1/10/2017	X	X	X			X			X	
	OS-MW-028B	1/9/2017	X	X	X			X			X	
	OS-MW-028C	1/6/2017	X	X	X			X			X	
	OS-MW-030A	1/10/2017		X								
	OS-MW-030B	1/9/2017	X	X	X			X			X	
	OS-MW-030C	1/9/2017	X	X	X			X			X	
	OS-MW-030D	1/9/2017	X	X	X			X			X	
	OS-MW-031A	1/6/2017	X	X	X	X	X	X	X	X	X	
	OS-MW-031B	1/6/2017	X	X	X			X			X	
Surface Water												
	OS-SW-015	10/19/2016	X	X	X	X	X	X	X	X	X	
John Street	OS-SW-016	10/19/2016	X	X	X	X	X	X	X	X	X	
	OS-SW-017	10/20/2016	X	X	X	X	X	X	X	X	X	
	OS-SW-018	10/20/2016	X	X	X	X	X	X	X	X	X	

Table 3
Summary of Site Characterization Samples
Former Oak Materials Fluorglas Division - John Street

Site Location	Sample Name	Collected	PFAS	VOCs	Metals	Cyanide	SVOCs	TOC	PCBs	Pesticides	pH	TO-15
Sediment												
John Street	OS-SED-017	10/20/2016	X	X	X	X	X	X	X	X	X	
	OS-SED-018	10/20/2016	X	X	X	X	X	X	X	X	X	
Soil Vapor / Outdoor Air												
John Street	AA-WSW	12/8/2016										X
	SV-01	12/8/2016										X
	SV-03	12/8/2016										X
	SV-06	12/8/2016										X
	SV-07	12/8/2016										X
	SV-08	12/8/2016										X

Notes and Abbreviations

1 - Analytical methods for the above analytes are presented in Table 16 - Summary of Analytical Methods.

2 - PFAS = Per- and Polyfluoroalkyl Substances, VOCs = Volatile Organic Compounds, SVOCs = Semi-volatile Organic Compounds, TOC = T Organic Carbon, PCBs = Polychlorintaed Biphenyls.

Table 4
Monitoring Well Construction Details
Former Oak Materials Fluorglas Division - John Street

Monitoring Well Location	Date of Installation	Total Depth (ft bgs)	Ground Surface Elevation (ft amsl)	Reference Elevation (ft amsl)	Well Diameter (in)	Screen Slot Size (in)	Sand Pack Grain Size (mm)	Depth of Screened Interval		Elevation of Screened Interval		Outer Casing Depth (ft bgs)	Location	
								Top (ft bgs)	Bottom (ft bgs)	Top (ft amsl)	Bottom (ft amsl)		Northing	Easting
John Street - Onsite														
JS-MW-001A	4-Oct-2016	17.5	428.0	427.8	1	0.01	#1	12.5	17.5	415.3	410.3	na	799426.66	1484144.00
JS-MW-001B	16-Nov-2016	79.5	428.4	427.9	1	0.01	#0	46	51	381.9	376.9	22	799424.06	1484138.96
JS-MW-001C	16-Nov-2016	79.5	428.4	427.9	1	0.01	#0	74.5	79.5	353.4	348.4	22	799424.06	1484138.99
JS-MW-002A	4-Oct-2016	9.0	428.9	428.4	1	0.01	#1	4	9	424.4	419.4	na	799404.54	1484082.32
JS-MW-003A	4-Oct-2016	9.5	431.4	431.1	1	0.01	#1	4.5	9.5	426.6	421.6	na	799382.16	1484024.42
JS-MW-003B	30-Nov-2016	55.0	430.8	430.4	1	0.01	#0	50	55	380.4	375.4	14	799384.90	1484030.42
JS-MW-003C	30-Nov-2016	89.0	430.8	430.4	1	0..01	#0	83	88	347.4	342.4	14	799384.91	1484030.40
JS-MW-004A	5-Oct-2016	10.5	432.1	431.7	1	0.01	#1	5.5	10.5	426.2	421.2	na	799315.47	1483931.00
JS-MW-004B	15-Nov-2016	111.0	432.0	431.7	1	0.01	#0	58	63	373.7	368.7	15	799318.00	1483935.25
JS-MW-004C	14-Nov-2016	111.0	432.0	431.7	1	0.01	#0	106	111	325.7	320.7	15	799317.95	1483935.29
JS-MW-005A	4-Oct-2016	12.5	433.3	433.0	1	0.01	#1	7.5	12.5	425.5	420.5	na	799364.40	1483944.15
John Street - Offsite														
OS-MW-024A	1-Nov-2016	6.5	435.0	434.7	1	0.01	#0	4	7	430.7	428.2	na	799559.56	1484103.35
OS-MW-024B	1-Nov-2016	42.5	435.1	434.7	1	0.01	#0	36	41	398.7	393.7	na	799553.89	1484103.74
OS-MW-025A	26-Oct-2016	17.1	428.1	427.7	1	0.01	#1	12	17	415.7	410.7	na	799548.75	1484264.42
OS-MW-025B	25-Oct-2016	25.1	428.1	427.8	1	0.01	#1	19.98	22	407.8	405.8	na	799552.74	1484264.92
OS-MW-025C	26-Oct-2016	25.1	428.0	427.7	1	0.01	#1	23	25	404.7	402.7	na	799550.09	1484260.94
OS-MW-026A	21-Oct-2016	20.7	427.9	427.5	1	0.01	#1	15.7	20.7	411.8	406.8	na	799277.85	1484280.90
OS-MW-026B	21-Oct-2016	42.0	427.9	427.6	1	0.01	#1	36	41	391.6	386.6	na	799272.85	1484279.93
OS-MW-026C	25-Oct-2016	80.0	427.9	427.5	1	0.01	#1	75	80	352.5	347.5	na	799275.88	1484277.22
OS-MW-027A	24-Oct-2016	21.0	430.2	429.8	1	0.01	#1	15.2	20.2	414.6	409.6	na	799129.95	1483911.84
OS-MW-027B	27-Oct-2016	98.0	430.3	430.0	1	0.01	#1	85	88	345.0	342.0	na	799130.61	1483907.05
OS-MW-027C	4-Nov-2016	100.0	430.3	430.1	1	0.01	#0	96.7	99.7	333.4	330.4	na	799132.90	1483909.37
OS-MW-028A	3-Nov-2016	78.0	438.7	438.3	1	0.01	#0	5	8	433.3	430.3	na	799556.68	1483577.40
OS-MW-028B	3-Nov-2016	78.0	438.7	438.1	1	0.01	#0	73	78	365.1	360.1	na	799556.67	1483577.41
OS-MW-028C	2-Nov-2016	101.0	438.7	438.3	1	0.01	#0	96	101	342.3	337.3	na	799557.10	1483582.48
OS-MW-030A	22-Nov-2016	16.0	451.9	451.6	1	0.01	#0	9.2	14.2	442.4	437.4	na	799239.39	1483654.95
OS-MW-030B	28-Nov-2016	82.4	451.9	451.4	1	0.01	#0	80.4	82.4	371.0	369.0	na	799235.53	1483654.41
OS-MW-030C	22-Nov-2016	90.0	451.9	451.6	1	0.01	#0	87	90	364.6	361.6	na	799239.40	1483654.94
OS-MW-030D	17-Nov-2016	110.0	452.0	451.6	1	0.01	#0	105	110	346.6	341.6	na	799242.78	1483655.46
OS-MW-031A	30-Nov-2016	16.1	427.8	427.4	1	0.01	#0	11	16	416.4	411.4	na	799407.16	1484357.89
OS-MW-031B	30-Nov-2016	25.2	427.8	427.5	1	0.01	#0	22.1	25.1	405.4	402.4	na	799403.75	1484356.78

Notes and Abbreviations

ft = feet
in = inches
amsl = above mean sea level
mm = millimeters
bgs = below ground surface
na- Not Applicable
Wells constructed with 1-inch diameter polyvinyl chloride (PVC) screen and riser
Outer casing constructed of 4-inch steel casing grouted 5-feet into the clay layer (double-cased wells).
Survey coordinates are in NAD83 State Plane New York East FIPS 3101 (US Feet).

Table 5
Analytical Results for PFAS, pH and TOC from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-APS-001	JS-APS-001	JS-APS-001	JS-APS-001	JS-APS-001	JS-APS-001	JS-APS-002	JS-APS-002	JS-APS-002	JS-APS-002
			Sample Date:	08/09/2016	08/09/2016	08/10/2016	08/10/2016	08/10/2016	08/10/2016	08/04/2016	08/05/2016	08/08/2016	08/08/2016
			Sample Depth:	14.1 ft	46.2 ft	53.5 ft	64.9 ft	76.9 ft	76.9 ft	7.4 ft	47.4 ft	64.2 ft	69.4 ft
			Sample Type:	N	N	N	N	FD	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**										
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified													
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	5 U	4 U	9 U	9 U	8 U	10 U	**11**	4 U	**10**	**10 J**
Perfluorodecanoic acid (PFDA)	ng/l	-	-	**4**	**2**	**1 J**	**80 J**	1 UJ	1 U	**2**	**2 J**	**2**	1 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**27**	**82**	**16**	**38**	**41**	**37**	**30**	**130**	**20**	**18**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**23 J**	**59 J**	**12**	**27 J**	**44 J**	**46**	**25**	**91**	**15**	**16**
Perfluorononanoic acid (PFNA)	ng/l	-	-	**7**	**12**	**3**	1 U	**1 J**	1 U	**1 J**	**6**	**3**	**1 J**
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	5 U	5 U	5 U	5 UJ	5 U	5 U	**5 J**	5 U	5 U	5 U
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**2600 J**	**5300 J**	**1600**	**1300 J**	**300 J**	**330**	**1500**	**4600**	**1300**	**920**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	3 U	3 U	3 UJ	3 UJ	3 UJ	3 UJ	**4 J**	3 U	4 U	3 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	2 U	2 U	2 U	**55 J**	2 UJ	2 U	2 U	2 U	2 U	2 U
pH by Standard Method 9045D													
pH	pH units	-	6.5 - 8.5	**7.8**	**8.2**	**8.1**	**8**	na	**8**	**7.5**	**8.1**	**8.2**	**8.1**
Total Organic Carbon by Lloyd Kahn Method													
Total Organic Carbon	mg/l	-	-	**1.7**	**1.5**	**0.59 J**	**1.9**	0.5 U	0.5 U	**1.2**	**1.6**	**0.76 J**	0.5 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.
Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 5
Analytical Results for PFAS, pH and TOC from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	JS-APS-002	JS-APS-003	JS-APS-003	JS-APS-003	JS-APS-003	JS-APS-003	JS-APS-004	JS-APS-004	JS-APS-004	JS-APS-004
Sample Date:				08/09/2016	08/03/2016	08/03/2016	08/03/2016	08/04/2016	08/04/2016	08/08/2016	08/09/2016	08/09/2016	08/09/2016
Sample Depth:				83.9 ft	8.8 ft	48.3 ft	59.7 ft	74.7 ft	88.5 ft	61.9 ft	66.1 ft	79.4 ft	111.5 ft
Sample Type:				N	N	N	N	N	N	N	N	N	N
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified													
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	4 U	**7 J**	4 U	4 U	4 U	4 U	4 U	4 U	5 U	4 U
Perfluorodecanoic acid (PFDA)	ng/l	-	-	1 UJ	**2 J**	1 U	1 U	1 U	1 U	1 U	**1 J**	1 U	1 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**38 J**	**20 J**	**66**	**30**	**75**	**160**	**22**	**130 J**	**140 J**	**150 J**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	4 U	4 U	4 U	**8 J**	4 U	4 U	4 U	4 U	4 U	4 U
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**37 J**	**18 J**	**51**	**21**	**95**	**160**	**19 J**	**130 J**	**120 J**	**200 J**
Perfluorononanoic acid (PFNA)	ng/l	-	-	1 U	**1 J**	**3**	**1 J**	1 U	1 U	1 U	1 U	1 U	1 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	**8 J**	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**450 J**	**580 J**	**3500**	**820**	**1100**	**1800**	**460**	**1600 J**	**3500 J**	**1900 J**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	3 UJ	3 U	3 U	3 UJ	3 U	3 U	3 U	**3 J**	3 UJ	**4 J**
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	**2 J**	2 UJ
pH by Standard Method 9045D													
pH	pH units	-	6.5 - 8.5	**8.1**	**7.7**	**8**	na	**8.1**	**8.1**	na	**8.2**	**8.2**	**8.1**
Total Organic Carbon by Lloyd Kahn Method													
Total Organic Carbon	mg/l	-	-	**1.6**	**0.94 J**	**0.81 J**	**0.51 J**	**0.73 J**	0.5 U	**0.98 J**	**0.9 J**	**0.9 J**	**1.1**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.

Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 5
Analytical Results for PFAS, pH and TOC from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-APS-005	JS-APS-005	JS-APS-005	JS-APS-005	JS-APS-005	OS-APS-024	OS-APS-025	OS-APS-025	OS-APS-025	OS-APS-026
			Sample Date:	08/03/2016	08/03/2016	08/04/2016	08/04/2016	08/04/2016	09/28/2016	10/04/2016	10/04/2016	10/04/2016	10/05/2016
			Sample Depth:	10.3 ft	10.3 ft	55 ft	62.1 ft	112.2 ft	40.2 ft	16.2 ft	21.8 ft	26.3 ft	15.2 ft
			Sample Type:	FD	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**										
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified													
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	4 U	**10 J**	4 U	4 U	4 U	4 UJ	4 UJ	**4 J**	4 UJ	**10 J**
Perfluorodecanoic acid (PFDA)	ng/l	-	-	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	3 U	3 UJ	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**13 J**	**8 J**	**15**	**25**	**94**	**17 J**	**7 J**	**17**	**19**	**11**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	4 U	4 UJ	**8 J**	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**8 J**	1 UJ	**12**	**18**	**160**	**12**	**8**	**12**	**21**	**10**
Perfluorononanoic acid (PFNA)	ng/l	-	-	1 U	**2 J**	1 U	1 U	1 U	1 U	1 U	**1 J**	1 U	**1 J**
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	5 U	**7 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**7 J**
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**310 J**	**290 J**	**180**	**650**	**730**	**630**	**320**	**540**	**440**	**370**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	3 U	3 UJ	**4 J**	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
pH by Standard Method 9045D													
pH	pH units	-	6.5 - 8.5	na	**7.8**	**8**	**8.1**	na	**8.2**	**7.4**	**7.8**	**7.8**	**7.3**
Total Organic Carbon by Lloyd Kahn Method													
Total Organic Carbon	mg/l	-	-	**1.6**	**2.5**	0.5 U	0.5 U	**0.98 J**	**0.8 J**	**1.5**	**1.3**	**1.4**	**1.6**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.
Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 5
Analytical Results for PFAS, pH and TOC from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

ERM

			Location ID:	OS-APS-026	OS-APS-026	OS-APS-026	OS-APS-027	OS-APS-027	OS-APS-028	OS-APS-028
			Sample Date:	10/05/2016	10/05/2016	10/05/2016	10/06/2016	10/06/2016	09/29/2016	10/03/2016
			Sample Depth:	34.1 ft	50.4 ft	70.3 ft	17.51 ft	105.7 ft	89.9 ft	94.4 ft
			Sample Type:	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**							
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified										
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	4 U	4 U	4 U	**5 J**	4 U	4 UJ	8 UJ
Perfluorodecanoic acid (PFDA)	ng/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	6 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**61**	**41**	**21**	**12**	**14**	**100**	**120**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	4 U	4 U	4 U	4 U	4 U	4 U	8 U
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**56**	**29**	**55**	**13**	**13**	**97**	**120**
Perfluorononanoic acid (PFNA)	ng/l	-	-	1 U	**3**	1 U	**1 J**	1 U	1 U	2 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	5 U	5 U	5 U	**7 J**	5 U	5 U	10 U
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**1800**	**1900**	**130**	**320**	**260**	**2800**	**3200**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	6 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	4 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	4 U
pH by Standard Method 9045D										
pH	pH units	-	6.5 - 8.5	**8**	**8**	**8**	**7.4**	**8.1**	**8.3**	na
Total Organic Carbon by Lloyd Kahn Method										
Total Organic Carbon	mg/l	-	-	**1.4**	**1.7**	**0.99 J**	**2**	**0.74 J**	**1.3**	0.5 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.

Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 6
Analytical Results for PFOA and Other PFAS, pH and TOC from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	JS-MW-001A	JS-MW-001A	JS-MW-001B	JS-MW-001C	JS-MW-002A	JS-MW-003A	JS-MW-003B	JS-MW-003C	JS-MW-004A	JS-MW-004B	JS-MW-004C	JS-MW-005A
			Sample Date:	01/09/2017	01/09/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017	01/10/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017	01/04/2017
			Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified															
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	**2 J**	**2 J**	**3 J**	0.7 U	**1 J**	**0.9 J**	**2 J**	0.7 U	**2**	**0.8 J**	**0.9 J**	**2 J**
Perfluorodecanoic acid (PFDA)	ng/l	-	-	**4 J**	**3**	**2**	0.5 U	**5**	0.5 U	**1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**40**	**43**	**70**	**37**	**10**	**4**	**34**	**100**	**9**	**28**	**160**	**8**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	1 U	1 U	**1 J**	1 U	1 U	1 U	**2 J**	1 U	**2 J**	**1 J**	**2 J**	1 U
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**19**	**20**	**40**	**54**	**7**	**6**	**22**	**130**	**6**	**14**	**150**	**8**
Perfluorononanoic acid (PFNA)	ng/l	-	-	**11**	**12**	**9**	0.6 U	**4**	0.6 U	**2 J**	0.6 U	**0.6 J**	0.6 U	0.6 U	0.6 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	**6 J**	**8**	**4 J**	2 U	**3 J**	2 U	2 U	2 U	**4 J**	2 U	2 U	2 U
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**6400**	**5700**	**5900**	**240**	**830**	**140 J**	**1500**	**2000**	**300**	**680**	**4100**	**200**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
pH by Standard Method 9045D															
pH	pH units	-	6.5 - 8.5	**7.6**	**7.4**	**7.8**	**7.7**	**7.3**	**7.8**	**7.9**	**7.8**	**7.5**	**7.9**	**8.7**	**7.4**
Total Organic Carbon by Lloyd Kahn Method															
Total Organic Carbon	mg/l	-	-	**1.8**	**1.8**	**6.4**	**0.95 J**	**2.3**	**1.4**	**4.9**	**31.9**	**1.5**	**1.2**	**2.1**	**1.7**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value

NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.

(yellow)	Exceedance of NYS GA Guidance
(green)	Exceedance of NYS GA Standard

Table 6
Analytical Results for PFOA and Other PFAS, pH and TOC from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

			Location ID:	OS-MW-024B	OS-MW-025A	OS-MW-025B	OS-MW-025C	OS-MW-026A	OS-MW-026B	OS-MW-026B	OS-MW-026C	OS-MW-027A	OS-MW-027B	OS-MW-027C	OS-MW-028B
			Sample Date:	01/06/2017	01/06/2017	01/09/2017	01/06/2017	01/06/2017	01/06/2017	01/06/2017	01/09/2017	01/10/2017	01/10/2017	01/10/2017	01/09/2017
			Sample Type:	N	N	N	N	N	FD	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**												
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modifie															
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	**2 J**	**3**	**5**	**3**	**10 J**	**3**	**3**	0.7 U	**2 J**	0.7 U	0.7 U	0.7 U
Perfluorodecanoic acid (PFDA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.6 J**	**0.6 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**22**	**10**	**21**	**22**	**20**	**47**	**43**	**14**	**19**	0.5 U	**2**	**89**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	**1 J**	1 U	**2 J**	**1 J**	**2 J**	**2 J**	**1 J**	1 U	**1 J**	1 U	1 U	1 U
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**14**	**9**	**17**	**24**	**17**	**28**	**27**	**12**	**22**	1 U	3 U	**76**
Perfluorononanoic acid (PFNA)	ng/l	-	-	**1 J**	**0.9 J**	**1 J**	**0.7 J**	**2 J**	**5**	**4**	0.6 U	**2 J**	0.6 U	0.6 U	0.6 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	**2 J**	**6 J**	**9 J**	2 U	**12 J**	**2 J**	**3 J**	2 U	**14 J**	2 U	2 U	2 U
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**620**	**640 J**	**660 J**	**610 J**	**730 J**	**3600**	**3900**	**19 J**	**600 J**	1 U	**25 J**	**1700**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
pH by Standard Method 9045D															
pH	pH units	-	6.5 - 8.5	**7.6**	**6.9**	**7.5**	**7.5**	**7**	**7.6**	**7.7**	**8**	**7.2**	**8.3**	**8.7**	**8.3**
Total Organic Carbon by Lloyd Kahn Method															
Total Organic Carbon	mg/l	-	-	**1**	**1.2**	**1.6**	**1.2**	**1.5**	**1.3**	**1.3**	**0.69 J**	**1.9**	0.5 U	0.5 U	**0.69 J**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value

NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.

Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 6
Analytical Results for PFOA and Other PFAS, pH and TOC from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

			Location ID:	OS-MW-028C	OS-MW-030B	OS-MW-030C	OS-MW-030D	OS-MW-031A	OS-MW-031B
			Sample Date:	01/06/2017	01/09/2017	01/09/2017	01/09/2017	01/06/2017	01/06/2017
			Sample Type:	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**						
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modifie									
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	**0.8 J**	**1 J**	**0.9 J**	0.7 U	**7**	**2 J**
Perfluorodecanoic acid (PFDA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**140**	**130**	**130**	**130**	**11**	**30**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	1 U	1 U	1 U	1 U	1 U	**2 J**
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**110**	**110**	**120**	**140**	**8**	**28**
Perfluorononanoic acid (PFNA)	ng/l	-	-	0.6 U	0.6 U	0.6 U	0.6 U	**1 J**	**0.9 J**
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	2 U	2 U	2 U	2 U	**5 J**	2 U
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**4400**	**3800**	**3900**	**3700**	**640 J**	**980**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U
pH by Standard Method 9045D									
pH	pH units	-	6.5 - 8.5	**7.8**	**8.8**	**8**	**8**	**7.3**	**7.4**
Total Organic Carbon by Lloyd Kahn Method									
Total Organic Carbon	mg/l	-	-	**0.95 J**	**1.9**	**0.83 J**	**0.86 J**	**1.4**	**14**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value

NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.

Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 7
Analytical Results for PFOA and Other PFAS, pH and TOC from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

									Location ID:	JS-B-001	JS-B-001	JS-B-001	JS-B-002	JS-B-002	JS-B-002	JS-B-002	JS-B-003
									Sample Date:	08/16/2016	08/16/2016	08/17/2016	08/11/2016	08/11/2016	08/11/2016	08/12/2016	07/21/2016
									Sample Depth:	18 - 20 ft	60 - 64 ft	76 - 76.5 ft	6 - 7 ft	6 - 8 ft	9 - 10 ft	60 - 64 ft	0 - 2 in
									Sample Type:	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**								
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified																	
Perfluorobutanesulfonic acid (PFBS)	µg/kg	-	-	-	-	-	-	-	-	0.74 U	0.6 U	0.59 U	0.56 U	na	0.63 U	0.56 U	0.52 U
Perfluorodecanoic acid (PFDA)	µg/kg	-	-	-	-	-	-	-	-	0.29 U	0.24 U	0.23 U	0.22 U	na	0.25 U	0.22 U	**0.41 J**
Perfluorododecanoic acid (PFDoA)	µg/kg	-	-	-	-	-	-	-	-	0.59 U	0.48 U	0.47 U	0.44 U	na	0.5 U	0.45 U	0.42 U
Perfluoroheptanoic acid (PFHpA)	µg/kg	-	-	-	-	-	-	-	-	0.44 U	0.36 U	0.35 U	0.33 U	na	0.38 U	0.34 U	0.31 UJ
Perfluorohexanesulfonic acid (PFHxS)	µg/kg	-	-	-	-	-	-	-	-	0.74 U	0.6 U	0.59 U	0.56 U	na	0.63 U	0.56 U	0.52 U
Perfluorohexanoic acid (PFHxA)	µg/kg	-	-	-	-	-	-	-	-	0.29 U	0.24 U	0.23 U	0.22 U	na	0.25 U	0.22 U	0.21 U
Perfluorononanoic acid (PFNA)	µg/kg	-	-	-	-	-	-	-	-	0.29 U	0.24 U	0.23 U	0.22 U	na	0.25 U	0.22 U	0.21 U
Perfluorooctanesulfonic acid (PFOS)	µg/kg	-	-	-	-	-	-	-	1000	1 U	0.83 U	0.82 U	0.78 U	na	0.88 U	0.78 U	0.73 U
Perfluorooctanoic acid (PFOA)	µg/kg	-	-	-	-	-	-	-	1000	**1.4**	**1.7**	**0.65 J**	**9.9**	na	**3.4**	**1.3**	**6.8**
Perfluorotetradecanoic acid (PFTA)	µg/kg	-	-	-	-	-	-	-	-	0.44 U	0.36 U	0.35 U	0.33 U	na	0.38 U	0.34 U	0.31 U
Perfluorotridecanoic Acid (PFTriA)	µg/kg	-	-	-	-	-	-	-	-	0.88 U	0.72 U	0.7 U	0.67 U	na	0.75 U	0.67 U	0.62 U
Perfluoroundecanoic Acid (PFUnA)	µg/kg	-	-	-	-	-	-	-	-	0.44 U	0.36 U	0.35 U	0.33 U	na	0.38 U	0.34 U	0.31 U
pH by Standard Method 9045D																	
pH	pH units	-	-	-	-	-	-	-	-	**8.29**	**8.54**	na	na	**6.81**	**8.4**	**8.63**	**8.35**
Total Organic Carbon by Lloyd Kahn Method																	
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	**1630**	**920**	na	na	**8770 J**	**535 J**	**198 J**	**20500**

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

Table 7
Analytical Results for PFOA and Other PFAS, pH and TOC from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-003	JS-B-003	JS-B-003	JS-B-003	JS-B-004	JS-B-004	JS-B-004	JS-B-005
									Sample Date:	07/21/2016	08/08/2016	08/08/2016	08/11/2016	07/21/2016	07/21/2016	08/17/2016	07/21/2016
									Sample Depth:	2 - 12 in	9 - 11 ft	15 - 17 ft	85 - 87 ft	0 - 2 in	2 - 12 in	10 - 12 ft	0 - 2 in
									Sample Type:	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**								
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified																	
Perfluorobutanesulfonic acid (PFBS)	µg/kg	-	-	-	-	-	-	-	-	0.53 U	0.7 U	0.7 U	0.54 U	0.55 U	0.54 U	0.69 U	0.52 U
Perfluorodecanoic acid (PFDA)	µg/kg	-	-	-	-	-	-	-	-	**0.6**	0.28 U	0.28 U	0.22 U	0.22 U	0.21 U	0.28 U	**0.29 J**
Perfluorododecanoic acid (PFDoA)	µg/kg	-	-	-	-	-	-	-	-	0.42 U	0.56 U	0.56 U	0.43 U	0.44 U	0.43 U	0.56 U	0.42 U
Perfluoroheptanoic acid (PFHpA)	µg/kg	-	-	-	-	-	-	-	-	0.32 U	0.42 U	0.42 U	0.32 U	0.33 U	0.32 U	0.42 U	0.31 UJ
Perfluorohexanesulfonic acid (PFHxS)	µg/kg	-	-	-	-	-	-	-	-	0.53 U	0.7 U	0.7 U	0.54 U	0.55 U	0.54 U	0.69 U	0.52 U
Perfluorohexanoic acid (PFHxA)	µg/kg	-	-	-	-	-	-	-	-	0.21 U	0.28 U	0.28 U	0.22 U	0.22 U	0.21 U	0.28 U	0.21 U
Perfluorononanoic acid (PFNA)	µg/kg	-	-	-	-	-	-	-	-	**0.23 J**	0.28 U	0.28 U	0.22 U	0.22 U	0.21 U	0.28 U	0.21 U
Perfluorooctanesulfonic acid (PFOS)	µg/kg	-	-	-	-	-	-	-	1000	0.74 U	0.98 U	0.99 U	0.76 U	**0.77 J**	0.75 U	0.97 U	0.73 U
Perfluorooctanoic acid (PFOA)	µg/kg	-	-	-	-	-	-	-	1000	**5**	**0.58 J**	0.42 U	**2**	0.33 U	0.32 U	0.42 U	**0.82**
Perfluorotetradecanoic acid (PFTA)	µg/kg	-	-	-	-	-	-	-	-	0.32 U	0.42 U	0.42 U	0.32 U	0.33 U	0.32 U	0.42 U	0.31 U
Perfluorotridecanoic Acid (PFTriA)	µg/kg	-	-	-	-	-	-	-	-	0.63 U	0.84 U	0.85 U	0.65 U	0.66 U	0.64 U	0.83 U	0.63 U
Perfluoroundecanoic Acid (PFUnA)	µg/kg	-	-	-	-	-	-	-	-	0.32 U	0.42 U	0.42 U	0.32 U	0.33 U	0.32 U	0.42 U	0.31 U
pH by Standard Method 9045D																	
pH	pH units	-	-	-	-	-	-	-	-	**8.33**	**8.7**	**8.44**	**8.66**	**8.13**	**7.64**	**8.23**	**8.1**
Total Organic Carbon by Lloyd Kahn Method																	
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	**22100**	**1750**	**2150**	**847**	**15200**	**11700**	**1130**	**20600**

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

									Location ID:	JS-B-005	JS-B-005	JS-B-006	JS-B-007	JS-B-007	JS-B-008	JS-B-008	JS-B-008
									Sample Date:	07/21/2016	08/23/2016	11/29/2016	11/30/2016	11/30/2016	12/01/2016	12/01/2016	12/01/2016
									Sample Depth:	2 - 12 in	11 - 12 ft	18 - 19 ft	6 - 7 ft	17 - 18 ft	5 - 7 ft	5 - 7 ft	18 - 19 ft
									Sample Type:	N	N	N	N	N	FD	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**								
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified																	
Perfluorobutanesulfonic acid (PFBS)	μg/kg	-	-	-	-	-	-	-	-	0.52 U	0.73 U	na	na	na	na	na	na
Perfluorodecanoic acid (PFDA)	μg/kg	-	-	-	-	-	-	-	-	0.21 U	0.29 U	na	na	na	na	na	na
Perfluorododecanoic acid (PFDoA)	μg/kg	-	-	-	-	-	-	-	-	0.42 U	0.59 U	na	na	na	na	na	na
Perfluoroheptanoic acid (PFHpA)	μg/kg	-	-	-	-	-	-	-	-	0.31 UJ	0.44 U	na	na	na	na	na	na
Perfluorohexanesulfonic acid (PFHxS)	μg/kg	-	-	-	-	-	-	-	-	0.52 U	0.73 U	na	na	na	na	na	na
Perfluorohexanoic acid (PFHxA)	μg/kg	-	-	-	-	-	-	-	-	0.21 U	0.29 U	na	na	na	na	na	na
Perfluorononanoic acid (PFNA)	μg/kg	-	-	-	-	-	-	-	-	0.21 U	0.29 UJ	na	na	na	na	na	na
Perfluorooctanesulfonic acid (PFOS)	μg/kg	-	-	-	-	-	-	-	1000	0.73 U	1 U	na	na	na	na	na	na
Perfluorooctanoic acid (PFOA)	μg/kg	-	-	-	-	-	-	-	1000	**0.81**	0.44 U	na	na	na	na	na	na
Perfluorotetradecanoic acid (PFTA)	μg/kg	-	-	-	-	-	-	-	-	0.31 U	0.44 UJ	na	na	na	na	na	na
Perfluorotridecanoic Acid (PFTriA)	μg/kg	-	-	-	-	-	-	-	-	0.63 U	0.88 U	na	na	na	na	na	na
Perfluoroundecanoic Acid (PFUnA)	μg/kg	-	-	-	-	-	-	-	-	0.31 U	0.44 U	na	na	na	na	na	na
pH by Standard Method 9045D																	
pH	pH units	-	-	-	-	-	-	-	-	**8.27**	**8.27**	**6.65**	**7.5**	**7.99**	**8.23**	**8.25**	**8.29**
Total Organic Carbon by Lloyd Kahn Method																	
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	**17700**	**1710**	na	na	na	na	na	na

Notes and Abbreviations
μg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
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N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

Table 7
Analytical Results for PFOA and Other PFAS, pH and TOC from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

									Location ID:	JS-B-009	JS-B-010	JS-B-011	JS-B-012	JS-SS-001	JS-SS-001	JS-SS-002	JS-SS-002
									Sample Date:	11/30/2016	11/29/2016	11/29/2016	11/30/2016	07/21/2016	07/21/2016	07/21/2016	07/21/2016
									Sample Depth:	11 - 12 ft	15 - 17 ft	15 - 17 ft	12 - 14 ft	0 - 2 in	2 - 12 in	10 - 12 in	12 - 24 in
									Sample Type:	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**								
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified																	
Perfluorobutanesulfonic acid (PFBS)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.51 U	0.52 U	0.54 U	0.54 U
Perfluorodecanoic acid (PFDA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.2 U	0.21 U	0.21 U	0.22 U
Perfluorododecanoic acid (PFDoA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.41 U	0.42 U	0.43 U	0.43 U
Perfluoroheptanoic acid (PFHpA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.3 U	0.31 U	0.32 U	0.32 UJ
Perfluorohexanesulfonic acid (PFHxS)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.51 U	0.52 U	0.54 U	0.54 U
Perfluorohexanoic acid (PFHxA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.2 U	0.21 U	0.21 U	0.22 U
Perfluorononanoic acid (PFNA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.2 U	0.21 U	0.21 U	0.22 U
Perfluorooctanesulfonic acid (PFOS)	µg/kg	-	-	-	-	-	-	-	1000	na	na	na	na	0.71 U	0.73 U	0.75 U	0.75 U
Perfluorooctanoic acid (PFOA)	µg/kg	-	-	-	-	-	-	-	1000	na	na	na	na	**0.85**	**2.9**	**3.3**	**1.1**
Perfluorotetradecanoic acid (PFTA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.3 U	0.31 U	0.32 U	0.32 U
Perfluorotridecanoic Acid (PFTriA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.61 U	0.63 U	0.64 U	0.65 U
Perfluoroundecanoic Acid (PFUnA)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	0.3 U	0.31 U	0.32 U	0.32 U
pH by Standard Method 9045D																	
pH	pH units	-	-	-	-	-	-	-	-	**8.27**	**8.02**	**8.18**	**8.33**	**8.46**	**8.6**	**8.57**	**8.87**
Total Organic Carbon by Lloyd Kahn Method																	
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	**7830**	**5520**	**9520**	**16800**

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
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FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

Table 7
Analytical Results for PFOA and Other PFAS, pH and TOC from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

									Location ID:	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-025	OS-B-025	OS-B-025	OS-B-026
									Sample Date:	09/13/2016	09/13/2016	09/30/2016	09/30/2016	09/22/2016	09/22/2016	10/11/2016	09/22/2016
									Sample Depth:	0 - 2 in	2 - 12 in	4 - 6 ft	6 - 8 ft	0 - 2 in	2 - 12 in	11 - 13 ft	0 - 2 in
									Sample Type:	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**								
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified																	
Perfluorobutanesulfonic acid (PFBS)	µg/kg	-	-	-	-	-	-	-	-	0.54 U	0.52 U	0.57 U	0.61 U	0.62 U	0.55 U	0.56 U	0.66 U
Perfluorodecanoic acid (PFDA)	µg/kg	-	-	-	-	-	-	-	-	0.22 U	0.21 U	0.23 U	0.25 U	0.25 U	0.22 U	0.22 U	0.26 U
Perfluorododecanoic acid (PFDoA)	µg/kg	-	-	-	-	-	-	-	-	0.44 U	0.41 U	0.46 U	0.49 U	0.5 U	0.44 U	0.45 U	0.53 U
Perfluoroheptanoic acid (PFHpA)	µg/kg	-	-	-	-	-	-	-	-	0.33 U	0.31 U	0.34 U	0.37 U	0.37 U	0.33 U	0.33 U	0.39 U
Perfluorohexanesulfonic acid (PFHxS)	µg/kg	-	-	-	-	-	-	-	-	0.54 U	0.52 U	0.57 U	0.61 U	0.62 U	0.55 U	0.56 U	0.66 U
Perfluorohexanoic acid (PFHxA)	µg/kg	-	-	-	-	-	-	-	-	0.22 U	0.21 U	**0.27 J**	0.25 U	0.25 U	0.22 U	0.22 U	0.26 U
Perfluorononanoic acid (PFNA)	µg/kg	-	-	-	-	-	-	-	-	0.22 U	0.21 U	**0.26 J**	0.25 U	0.25 U	0.22 U	0.22 UJ	0.26 U
Perfluorooctanesulfonic acid (PFOS)	µg/kg	-	-	-	-	-	-	-	1000	0.76 U	0.73 U	**38**	0.86 U	0.87 U	0.77 U	0.78 U	0.92 U
Perfluorooctanoic acid (PFOA)	µg/kg	-	-	-	-	-	-	-	1000	0.33 U	**0.36 J**	**5.1**	**1.2**	0.37 U	0.33 U	**0.36 J**	**1.5**
Perfluorotetradecanoic acid (PFTA)	µg/kg	-	-	-	-	-	-	-	-	0.33 U	0.31 U	0.34 U	0.37 U	0.37 U	0.33 U	0.33 U	0.39 U
Perfluorotridecanoic Acid (PFTriA)	µg/kg	-	-	-	-	-	-	-	-	0.65 U	0.62 U	0.69 U	0.74 U	0.75 U	0.66 U	0.67 U	0.79 U
Perfluoroundecanoic Acid (PFUnA)	µg/kg	-	-	-	-	-	-	-	-	0.33 U	0.31 U	0.34 U	0.37 U	0.37 U	0.33 U	0.33 U	0.39 U
pH by Standard Method 9045D																	
pH	pH units	-	-	-	-	-	-	-	-	**7.89**	**8.22**	na	**8.65**	**7.89**	**8.21**	**7.76**	**7.39**
Total Organic Carbon by Lloyd Kahn Method																	
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	**15700**	**3540**	na	**1430**	**4370**	**7590**	**2940**	**18800**

Notes and Abbreviations
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mg/kg - milligrams per kilogram
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J - Estimated value
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Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

Table 7
Analytical Results for PFOA and Other PFAS, pH and TOC from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

									Location ID:	OS-B-026	OS-B-026	OS-B-027	OS-B-027	OS-B-027	OS-B-028	OS-B-028	OS-B-028
									Sample Date:	09/22/2016	10/11/2016	09/26/2016	09/26/2016	10/13/2016	09/26/2016	09/26/2016	10/06/2016
									Sample Depth:	2 - 12 in	9 - 10 ft	0 - 2 in	2 - 12 in	4 - 6 ft	3 - 5 in	5 - 12 in	6 - 8 ft
									Sample Type:	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**								
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified																	
Perfluorobutanesulfonic acid (PFBS)	µg/kg	-	-	-	-	-	-	-	-	0.56 U	0.58 U	0.63 U	0.58 U	0.6 U	0.52 U	0.57 U	0.54 U
Perfluorodecanoic acid (PFDA)	µg/kg	-	-	-	-	-	-	-	-	0.22 U	0.23 U	0.25 U	**0.34 J**	0.24 U	0.21 U	0.23 U	0.21 U
Perfluorododecanoic acid (PFDoA)	µg/kg	-	-	-	-	-	-	-	-	0.45 U	0.46 U	0.5 U	0.47 U	0.48 U	0.42 U	0.45 U	0.43 U
Perfluoroheptanoic acid (PFHpA)	µg/kg	-	-	-	-	-	-	-	-	0.34 U	0.35 U	0.38 U	0.35 U	0.36 U	0.31 U	0.34 U	0.32 U
Perfluorohexanesulfonic acid (PFHxS)	µg/kg	-	-	-	-	-	-	-	-	0.56 U	0.58 U	0.63 U	0.58 U	0.6 U	0.52 U	0.57 U	0.54 U
Perfluorohexanoic acid (PFHxA)	µg/kg	-	-	-	-	-	-	-	-	0.22 U	0.23 U	0.25 U	0.23 U	0.24 U	0.21 U	0.23 U	0.21 U
Perfluorononanoic acid (PFNA)	µg/kg	-	-	-	-	-	-	-	-	0.22 U	0.23 UJ	0.25 U	0.23 U	0.24 UJ	0.21 U	0.23 U	0.21 U
Perfluorooctanesulfonic acid (PFOS)	µg/kg	-	-	-	-	-	-	-	1000	0.78 U	0.81 U	0.88 U	**1.3 J**	0.84 U	0.73 U	**1.1 J**	0.75 U
Perfluorooctanoic acid (PFOA)	µg/kg	-	-	-	-	-	-	-	1000	0.34 U	0.35 U	**2.6**	**1.8**	0.36 U	**0.7**	**0.4 J**	**0.5 J**
Perfluorotetradecanoic acid (PFTA)	µg/kg	-	-	-	-	-	-	-	-	0.34 U	0.35 U	0.38 U	0.35 U	0.36 U	0.31 U	0.34 U	0.32 U
Perfluorotridecanoic Acid (PFTriA)	µg/kg	-	-	-	-	-	-	-	-	0.67 U	0.69 U	0.75 U	0.7 U	0.72 U	0.63 U	0.68 U	0.64 U
Perfluoroundecanoic Acid (PFUnA)	µg/kg	-	-	-	-	-	-	-	-	0.34 U	0.35 U	0.38 U	0.35 U	0.36 U	0.31 U	0.34 U	0.32 U
pH by Standard Method 9045D																	
pH	pH units	-	-	-	-	-	-	-	-	**7.75**	**7.69**	**6.56**	**6.65**	**6.89**	**8.31**	**8.33**	**8.9**
Total Organic Carbon by Lloyd Kahn Method																	
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	**10000**	**695**	**31900**	**9030**	**857**	**22400**	**7830**	**4020**

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

Table 7
Analytical Results for PFOA and Other PFAS, pH and TOC from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	OS-B-028	OS-B-030	OS-B-030	OS-B-031
									Sample Date:	10/06/2016	11/15/2016	11/15/2016	11/29/2016
									Sample Depth:	12 - 16 ft	11.7 - 13.7 ft	13.7 - 15 ft	15 - 17 ft
									Sample Type:	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**				
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified													
Perfluorobutanesulfonic acid (PFBS)	µg/kg	-	-	-	-	-	-	-	-	0.59 U	0.51 U	0.68 U	0.62 U
Perfluorodecanoic acid (PFDA)	µg/kg	-	-	-	-	-	-	-	-	0.24 U	0.2 U	0.27 U	0.25 U
Perfluorododecanoic acid (PFDoA)	µg/kg	-	-	-	-	-	-	-	-	0.48 U	0.41 U	0.55 U	0.5 U
Perfluoroheptanoic acid (PFHpA)	µg/kg	-	-	-	-	-	-	-	-	0.36 U	0.31 U	0.41 U	0.37 U
Perfluorohexanesulfonic acid (PFHxS)	µg/kg	-	-	-	-	-	-	-	-	0.59 U	0.51 U	0.68 U	0.62 U
Perfluorohexanoic acid (PFHxA)	µg/kg	-	-	-	-	-	-	-	-	0.24 U	0.2 U	0.27 U	0.25 U
Perfluorononanoic acid (PFNA)	µg/kg	-	-	-	-	-	-	-	-	0.24 U	0.2 U	0.27 U	0.25 U
Perfluorooctanesulfonic acid (PFOS)	µg/kg	-	-	-	-	-	-	-	1000	0.83 U	0.71 U	0.95 U	0.87 U
Perfluorooctanoic acid (PFOA)	µg/kg	-	-	-	-	-	-	-	1000	0.36 U	0.31 U	**0.48 J**	**0.53 J**
Perfluorotetradecanoic acid (PFTA)	µg/kg	-	-	-	-	-	-	-	-	0.36 U	0.31 UJ	0.41 UJ	0.37 U
Perfluorotridecanoic Acid (PFTriA)	µg/kg	-	-	-	-	-	-	-	-	0.71 U	0.61 UJ	0.82 UJ	0.74 U
Perfluoroundecanoic Acid (PFUnA)	µg/kg	-	-	-	-	-	-	-	-	0.36 U	0.31 U	0.41 U	0.37 U
pH by Standard Method 9045D													
pH	pH units	-	-	-	-	-	-	-	-	**8.2**	na	na	**na**
Total Organic Carbon by Lloyd Kahn Method													
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	**3710**	na	na	**2050**

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

Table 8
Analytical Results for PFAS, pH and TOC from Surface Water Samples
Former Oak Materials Fluorglas Division - John Street

ERM

			Location ID:	OS-SW-015	OS-SW-016	OS-SW-017	OS-SW-018
			Sample Date:	10/19/2016	10/19/2016	10/20/2016	10/20/2016
			Sample Depth:	-	-	-	-
			Sample Type:	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA**	**NYSDEC TOGS111 GA STANDARD**				
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified							
Perfluorobutanesulfonic acid (PFBS)	ng/l	-	-	4 U	4 U	4 U	4 U
Perfluorodecanoic acid (PFDA)	ng/l	-	-	1 U	1 U	1 U	1 U
Perfluorododecanoic acid (PFDoA)	ng/l	-	-	3 U	3 U	3 U	3 U
Perfluoroheptanoic acid (PFHpA)	ng/l	-	-	**8 J**	**7 J**	**6**	**6**
Perfluorohexanesulfonic acid (PFHxS)	ng/l	-	-	4 U	4 U	4 U	4 U
Perfluorohexanoic acid (PFHxA)	ng/l	-	-	**8**	**8**	**5**	**4**
Perfluorononanoic acid (PFNA)	ng/l	-	-	1 U	1 U	1 U	1 U
Perfluorooctanesulfonic acid (PFOS)	ng/l	-	-	5 U	5 U	5 U	5 U
Perfluorooctanoic acid (PFOA)	ng/l	-	-	**350**	**250**	**210**	**220**
Perfluorotetradecanoic acid (PFTA)	ng/l	-	-	3 U	3 U	3 U	3 U
Perfluorotridecanoic Acid (PFTriA)	ng/l	-	-	2 U	2 U	2 U	2 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	-	-	2 U	2 U	2 U	2 U
pH by Standard Method 9045D							
pH	pH units	-	6.5 - 8.5	**9.6**	**9.2**	**8.1**	**8**
Total Organic Carbon by Lloyd Kahn Method							
Total Organic Carbon	mg/l	-	-	**3.6**	**3.1**	**2.6**	**2.6**

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.
Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 9
Analytical Results for PFOA and Other PFAS, pH and TOC from Sediment Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	OS-SED-017	OS-SED-018
									Sample Date:	10/20/2016	10/20/2016
									Sample Depth:	-	-
									Sample Type:	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**		
Perfluorinated Alkyl Compounds (PFAS) by USEPA Method 537-1.1 modified											
Perfluorobutanesulfonic acid (PFBS)	µg/kg	-	-	-	-	-	-	-	-	0.58 U	0.55 U
Perfluorodecanoic acid (PFDA)	µg/kg	-	-	-	-	-	-	-	-	0.23 U	0.22 U
Perfluorododecanoic acid (PFDoA)	µg/kg	-	-	-	-	-	-	-	-	0.47 U	0.44 U
Perfluoroheptanoic acid (PFHpA)	µg/kg	-	-	-	-	-	-	-	-	0.35 U	0.33 U
Perfluorohexanesulfonic acid (PFHxS)	µg/kg	-	-	-	-	-	-	-	-	0.58 U	0.55 U
Perfluorohexanoic acid (PFHxA)	µg/kg	-	-	-	-	-	-	-	-	0.23 U	0.22 U
Perfluorononanoic acid (PFNA)	µg/kg	-	-	-	-	-	-	-	-	0.23 U	0.22 U
Perfluorooctanesulfonic acid (PFOS)	µg/kg	-	-	-	-	-	-	-	1000	0.82 U	0.77 U
Perfluorooctanoic acid (PFOA)	µg/kg	-	-	-	-	-	-	-	1000	**0.89**	**0.66**
Perfluorotetradecanoic acid (PFTA)	µg/kg	-	-	-	-	-	-	-	-	0.35 U	0.33 U
Perfluorotridecanoic Acid (PFTriA)	µg/kg	-	-	-	-	-	-	-	-	0.7 U	0.66 U
Perfluoroundecanoic Acid (PFUnA)	µg/kg	-	-	-	-	-	-	-	-	0.35 U	0.33 U
pH by Standard Method 9045D											
pH	pH units	-	-	-	-	-	-	-	-	**7.82**	**7.86**
Total Organic Carbon by Lloyd Kahn Method											
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	**4250**	**1670**

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS Developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter
Exceedance of USEPA Screening Value

Table 10
Analytical Results for Other Parameters from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-APS-001	JS-APS-002	JS-APS-003	JS-APS-004	JS-APS-005	OS-APS-024	OS-APS-025	OS-APS-026	OS-APS-027	OS-APS-028
			Sample Date:	08/09/2016	08/04/2016	08/03/2016	08/08/2016	08/03/2016	09/28/2016	10/04/2016	10/05/2016	10/06/2016	09/29/2016
			Sample Depth:	14.1 ft	7.4 ft	8.8 ft	61.9 ft	10.3 ft	40.2 ft	16.2 ft	15.2 ft	17.51 ft	89.9 ft
			Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**										
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)													
Aluminum	mg/l	-	-	**0.516**	**1.12**	**1.2**	0.0868 U	**0.29 J**	0.0868 U	0.0868 U	**0.152 J**	**1.57**	0.0868 U
Antimony	mg/l	-	0.003	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U
Arsenic	mg/l	-	0.025	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Barium	mg/l	-	1	**0.0999**	**0.208**	**0.0816**	**0.0887**	**0.0291**	**0.0929**	**0.0954**	**0.0546**	**0.0851**	**0.453**
Beryllium	mg/l	0.003	-	0.00081 U	0.0007 U	0.00077 U	0.00081 U	0.0008 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U
Cadmium	mg/l	-	0.005	0.00049 U	**0.0057 J**	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U
Calcium	mg/l	-	-	**93.7**	**106**	**56**	**93.3**	**36.8**	**141**	**83.6**	**68.5**	**79.2**	**79.4**
Chromium	mg/l	-	0.05	**0.023 J**	**0.0471**	**0.0028 J**	0.0018 U	0.0018 U	**0.0019 J**	0.0018 U	0.0018 U	**0.0024 J**	0.0018 U
Cobalt	mg/l	-	-	0.0019 U	**0.0026 J**	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U
Copper	mg/l	-	0.2	0.0041 U	**0.0267**	**0.0051 J**	0.0041 U	0.0041 U	0.0051 U	0.0041 U	**0.133**	**0.0057 J**	0.0041 U
Iron	mg/l	-	0.3	**0.532**	**2.54**	**1.65**	**0.313 J**	**0.385 J**	**0.114 J**	**0.147 J**	**0.118 J**	**2.29**	0.0747 U
Lead	mg/l	-	0.025	0.0062 U	**0.0071 J**	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U
Magnesium	mg/l	35	-	**16.5**	**19.1**	**9.93**	**17.8**	**6.51**	**30**	**13.3**	**8.94**	**9.4**	**16.9**
Manganese	mg/l	-	0.3	**0.0733**	**0.489**	**0.16**	**0.644**	**0.02**	**0.346**	**0.0145**	**0.0165**	**0.0777**	**0.413**
Mercury	mg/l	-	0.0007	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U
Nickel	mg/l	-	0.1	0.0028 U	**0.0086 J**	**0.0051 J**	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U
Potassium	mg/l	-	-	**5.42**	**6.02**	**4.78**	**6.08**	**3.15**	**8.63**	**4.7**	**5.03**	**6.71**	**1.63**
Selenium	mg/l	-	0.01	**0.0161 J**	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Silver	mg/l	-	0.05	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U
Sodium	mg/l	-	20	**78.2**	**96.6**	**103**	**109**	**64.9**	**180**	**66.6**	**180**	**283**	**51.6**
Thallium	mg/l	0.0005	-	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U
Vanadium	mg/l	-	-	0.0016 U	**0.0018 J**	**0.0019 J**	0.0016 U	0.0016 U	0.0019 U	0.0016 U	0.0016 U	**0.0026 J**	0.0016 U
Zinc	mg/l	2	-	0.0054 U	**0.0291 J**	**0.0258 J**	0.0054 U	0.0054 U	**0.0123 J**	0.0054 U	0.0054 U	**0.0096 J**	0.0054 U
Total Cyanide by USEPA Method 9010													
Total Cyanide (water)	mg/l	-	0.2	0.005 U	0.005 U	0.005 U	na	0.005 U	0.005 U	0.005 U	0.005 UJ	0.005 UJ	na
Polychlorined Biphenyls (PCBs) by USEPA Method 8082													
Aroclor-1016	µg/l	-	0.09	0.083 U	0.084 U	0.083 U	0.083 U	0.083 U	0.091 U	0.085 U	0.085 U	0.081 U	na
Aroclor-1221	µg/l	-	0.09	0.083 U	0.084 U	0.083 U	0.083 U	0.083 U	0.091 U	0.085 U	0.085 U	0.081 U	na
Aroclor-1232	µg/l	-	0.09	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.16 U	na
Aroclor-1242	µg/l	-	0.09	0.083 U	0.084 U	0.083 U	0.083 U	0.083 U	0.091 U	0.085 U	0.085 U	0.081 U	na
Aroclor-1248	µg/l	-	0.09	0.083 U	0.084 U	0.083 U	0.083 U	0.083 U	0.091 U	0.085 U	0.085 U	0.081 U	na
Aroclor-1254	µg/l	-	0.09	0.083 U	0.084 U	0.083 U	0.083 U	0.083 U	0.091 U	0.085 U	0.085 U	0.081 U	na
Aroclor-1260	µg/l	-	0.09	0.12 U	0.13 U	0.12 U	0.12 U	0.13 U	0.14 U	0.13 U	0.13 U	0.12 U	na
Aroclor-1262	µg/l	-	0.09	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.16 U	na
Aroclor-1268	µg/l	-	0.09	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.15 U	0.14 U	0.14 U	0.13 U	na
Pesticides by USEPA Method 8081													
Aldrin	µg/l	-	-	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0018 U	0.0017 U	0.0017 U	0.0016 U	na
Alpha BHC	µg/l	-	0.01	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0027 U	0.0026 U	0.0026 U	0.0024 U	na
Alpha Chlordane	µg/l	-	-	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0027 U	0.0026 U	0.0026 U	0.0024 U	na
Beta BHC	µg/l	-	0.04	0.006 U	0.0029 U	0.0028 U	0.0028 U	0.0028 U	0.025 U	0.0029 U	0.0029 U	0.0028 U	na

Table 10
Analytical Results for Other Parameters from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-APS-001	JS-APS-002	JS-APS-003	JS-APS-004	JS-APS-005	OS-APS-024	OS-APS-025	OS-APS-026	OS-APS-027	OS-APS-028
			Sample Date:	08/09/2016	08/04/2016	08/03/2016	08/08/2016	08/03/2016	09/28/2016	10/04/2016	10/05/2016	10/06/2016	09/29/2016
			Sample Depth:	14.1 ft	7.4 ft	8.8 ft	61.9 ft	10.3 ft	40.2 ft	16.2 ft	15.2 ft	17.51 ft	89.9 ft
			Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**										
Delta BHC	µg/l	-	0.04	0.0028 U	0.0029 U	**0.0051 J**	0.0028 U	0.0028 U	0.0031 U	0.0029 U	0.0029 U	0.0028 U	na
Dieldrin	µg/l	-	0.004	0.0044 U	0.0045 U	0.0057 U	0.0044 U	0.0051 U	0.0048 U	0.0045 U	0.0045 U	0.0043 U	na
Endosulfan I	µg/l	-	-	0.0036 U	0.0036 U	0.0036 U	**0.0064 J**	0.0036 U	0.0039 U	0.0037 U	0.0037 U	0.0035 U	na
Endosulfan II	µg/l	-	-	0.012 U	0.013 U	0.012 U	0.012 U	0.013 U	0.014 U	0.013 U	0.013 U	0.012 U	na
Endosulfan Sulfate	µg/l	-	-	0.0048 U	0.0049 U	0.0048 U	0.0048 U	0.0048 U	0.0053 U	0.0049 U	0.005 U	0.0047 U	na
Endrin	µg/l	-	0	0.0067 U	0.0068 U	0.0067 U	0.0067 U	0.0068 U	0.0074 U	0.0069 U	0.0069 U	0.0066 U	na
Endrin Aldehyde	µg/l	-	5	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.017 U	0.017 U	0.016 U	na
Endrin Ketone	µg/l	-	5	0.0041 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U	0.0045 U	0.0043 U	0.0043 U	0.0041 U	na
Gamma Chlordane	µg/l	-	-	0.0058 U	**0.15 J**	0.0092 U	0.0058 U	0.0058 U	0.013 U	0.006 U	0.006 U	0.0081 U	na
gamma-BHC (Lindane)	µg/l	-	0.04	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0018 U	0.0017 U	0.0017 U	0.0016 U	na
Heptachlor	µg/l	-	0.04	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0018 U	0.0017 U	0.0017 U	0.0016 U	na
Heptachlor Epoxide	µg/l	-	0.03	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0021 U	0.002 U	0.002 U	0.0019 U	na
Methoxychlor	µg/l	-	35	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.027 U	0.026 U	0.026 U	0.024 U	na
p,p-DDD	µg/l	-	0.3	0.0041 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U	0.0045 U	0.0043 U	0.0043 U	0.0041 U	na
p,p-DDE	µg/l	-	0.2	0.0041 U	0.0042 U	0.0041 U	0.0041 U	0.0042 U	0.0045 U	0.0043 U	0.0043 U	0.0041 U	na
p,p-DDT	µg/l	-	0.2	0.0043 U	0.0044 U	0.0043 U	0.0043 U	0.0043 U	0.0047 U	0.0044 U	0.0044 U	0.0042 U	na
Toxaphene	µg/l	-	0.06	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.27 U	0.26 U	0.26 U	0.24 U	na
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270													
1,1'-Biphenyl	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
1,2,4,5-Tetrachlorobenzene	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
1,4-Dioxane	µg/l	-	-	**2 J**	1 U	1 U	**1 J**	1 U	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	na
2,2'-oxybis(1-Chloropropane)	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2,3,4,6-Tetrachlorophenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2,4,5-Trichlorophenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2,4,6-Trichlorophenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2,4-Dichlorophenol	µg/l	-	1	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2,4-Dimethylphenol	µg/l	50	1	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2,4-Dinitrophenol	µg/l	-	1	10 U	11 UJ	11 UJ	10 U	10 UJ	11 UJ	11 UJ	11 UJ	11 UJ	na
2,4-Dinitrotoluene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	na
2,6-Dinitrotoluene	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2-Chloronaphthalene	µg/l	10	-	0.4 U	0.4 U	0.5 U	0.4 U	0.4 U	0.45 UJ	0.43 UJ	0.43 UJ	0.43 UJ	na
2-Chlorophenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2-Methylnaphthalene	µg/l	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
2-Methylphenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2-Nitroaniline	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
2-Nitrophenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
3,3'-Dichlorobenzidine	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na
3-Nitroaniline	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
4,6-Dinitro-2-methylphenol	µg/l	-	-	5 U	6 UJ	6 UJ	5 U	5 UJ	5.6 UJ	5.3 UJ	5.3 UJ	5.3 UJ	na
4-Bromophenyl-phenylether	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
4-Chloro-3-methylphenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
4-Chloroaniline	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na

Table 10
Analytical Results for Other Parameters from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-APS-001	JS-APS-002	JS-APS-003	JS-APS-004	JS-APS-005	OS-APS-024	OS-APS-025	OS-APS-026	OS-APS-027	OS-APS-028
			Sample Date:	08/09/2016	08/04/2016	08/03/2016	08/08/2016	08/03/2016	09/28/2016	10/04/2016	10/05/2016	10/06/2016	09/29/2016
			Sample Depth:	14.1 ft	7.4 ft	8.8 ft	61.9 ft	10.3 ft	40.2 ft	16.2 ft	15.2 ft	17.51 ft	89.9 ft
			Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**										
4-Chlorophenyl-phenylether	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
4-Methylphenol	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
4-Nitroaniline	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
4-Nitrophenol	µg/l	-	-	10 U	11 UJ	11 UJ	10 U	10 UJ	11 UJ	11 UJ	11 UJ	11 UJ	na
Acenaphthene	µg/l	20	20	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Acenaphthylene	µg/l	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Acetophenone	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
Anthracene	µg/l	50	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Atrazine	µg/l	-	7.5	2 U	2 U	2 U	2 U	2 U	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na
Benzaldehyde	µg/l	-	-	1 U	1 U	1 U	1 U	1 U	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	na
Benzo(a)anthracene	µg/l	0.002	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Benzo(a)pyrene	µg/l	-	0	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Benzo(b)fluoranthene	µg/l	0.002	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Benzo(g,h,i)perylene	µg/l	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Benzo(k)fluoranthene	µg/l	0.002	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
bis(2-Chloroethoxy)methane	µg/l	-	5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
bis(2-Chloroethyl)ether	µg/l	-	1	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
bis(2-Ethylhexyl)phthalate	µg/l	-	5	2 U	2 U	2 U	2 U	**3 J**	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na
Butylbenzylphthalate	µg/l	50	-	2 U	2 UJ	2 UJ	2 U	2 UJ	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na
Caprolactam	µg/l	-	-	5 U	6 U	6 U	5 U	5 U	5.6 UJ	5.3 UJ	5.3 UJ	5.3 UJ	na
Carbazole	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
Chrysene	µg/l	0.002	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Dibenz(a,h)anthracene	µg/l	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Dibenzofuran	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
Diethylphthalate	µg/l	50	-	2 U	2 UJ	2 UJ	2 U	2 UJ	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na
Dimethylphthalate	µg/l	50	-	2 U	2 UJ	2 UJ	2 U	2 UJ	R	2.1 UJ	2.1 UJ	2.1 UJ	na
Di-n-butylphthalate	µg/l	-	50	2 U	2 U	2 U	2 U	2 U	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na
Di-n-octylphthalate	µg/l	50	-	2 U	2 U	2 U	2 U	2 U	2.3 UJ	2.1 UJ	2.1 UJ	2.1 UJ	na
Fluoranthene	µg/l	50	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Fluorene	µg/l	50	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Hexachlorobenzene	µg/l	-	0.04	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Hexachlorobutadiene	µg/l	-	0.5	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
Hexachlorocyclopentadiene	µg/l	-	5	5 U	6 U	6 U	5 U	5 U	5.6 UJ	5.3 UJ	5.3 UJ	5.3 UJ	na
Hexachloroethane	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	na
Indeno(1,2,3-cd)pyrene	µg/l	0.002	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Isophorone	µg/l	50	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
Naphthalene	µg/l	10	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Nitrobenzene	µg/l	-	0.4	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
N-Nitroso-di-n-propylamine	µg/l	-	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
N-Nitrosodiphenylamine	µg/l	50	-	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
Pentachlorophenol	µg/l	-	1	1 U	1 U	1 U	1 U	1 U	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	na
Phenanthrene	µg/l	50	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na
Phenol	µg/l	-	1	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.56 UJ	0.53 UJ	0.53 UJ	0.53 UJ	na
Pyrene	µg/l	50	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	na

Table 10
Analytical Results for Other Parameters from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-APS-001	JS-APS-002	JS-APS-003	JS-APS-004	JS-APS-005	OS-APS-024	OS-APS-025	OS-APS-026	OS-APS-027	OS-APS-028
			Sample Date:	08/09/2016	08/04/2016	08/03/2016	08/08/2016	08/03/2016	09/28/2016	10/04/2016	10/05/2016	10/06/2016	09/29/2016
			Sample Depth:	14.1 ft	7.4 ft	8.8 ft	61.9 ft	10.3 ft	40.2 ft	16.2 ft	15.2 ft	17.51 ft	89.9 ft
			Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**										
Volatile Organic Compounds (VOCs) by USEPA Method 8260													
1,1,1-Trichloroethane	µg/l	-	5	**9**	**3**	**3**	**2**	0.5 U	**16**	**4**	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/l	-	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	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/l	-	1	0.5 U	0.5 U	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	µg/l	-	5	**0.8 J**	0.5 U	0.5 U	**87**	0.5 U	**7**	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	µg/l	-	5	0.5 U	0.5 U	0.5 U	**8**	0.5 U	**3**	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	µg/l	-	0.04	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dibromoethane	µg/l	-	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	µg/l	-	0.6	0.5 U	0.5 U	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	µg/l	-	1	0.5 U	0.5 U	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	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	µg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
2-Hexanone	µg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	µg/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Acetone	µg/l	50	-	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Benzene	µg/l	-	1	0.5 U	0.5 U	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	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	µg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/l	50	-	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
Bromomethane	µg/l	-	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	0.5 U	0.5 U
Carbon Disulfide	µg/l	60		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	µg/l	-	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	0.5 U	0.5 U
Chlorobenzene	µg/l	-	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	0.5 U	0.5 U
Chloroethane	µg/l	-	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	0.5 U	0.5 U
Chloroform	µg/l	-	7	0.5 U	0.5 U	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	µg/l	-	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	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/l	-	5	**6**	**2**	0.5 U	0.5 U	0.5 U	**0.8 J**	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	µg/l	-	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	µg/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	µg/l	50	-	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
Dichlorodifluoromethane	µg/l	-	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	0.5 U	0.5 U
Ethylbenzene	µg/l	-	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	0.5 U	0.5 U
Freon 113	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isopropylbenzene (Cumene)	ug/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylene	ug/l	-	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	0.5 U	0.5 U
Methyl Acetate	ug/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl Tertiary Butyl Ether (MTBE	ug/l	10	-	0.5 U	0.5 U	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	µg/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Table 10
Analytical Results for Other Parameters from Groundwater Samples by Waterloo APS
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-APS-001	JS-APS-002	JS-APS-003	JS-APS-004	JS-APS-005	OS-APS-024	OS-APS-025	OS-APS-026	OS-APS-027	OS-APS-028
			Sample Date:	08/09/2016	08/04/2016	08/03/2016	08/08/2016	08/03/2016	09/28/2016	10/04/2016	10/05/2016	10/06/2016	09/29/2016
			Sample Depth:	14.1 ft	7.4 ft	8.8 ft	61.9 ft	10.3 ft	40.2 ft	16.2 ft	15.2 ft	17.51 ft	89.9 ft
			Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**										
Methylene Chloride	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
n-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	µg/l	-	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	µg/l	-	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	0.5 U	0.5 U
p-Isopropyltoluene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	µg/l	-	5	**0.6 J**	0.5 U	**1**	0.5 U	0.5 U	0.5 U	**0.6 J**	0.5 U	0.5 U	0.5 U
Toluene	µg/l	-	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	**0.7 J**	0.5 U
trans-1,2-Dichloroethene	µg/l	-	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	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/l	-	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	µg/l	-	5	**110**	**30**	**8**	**3**	0.5 U	**48**	**4**	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	µg/l	-	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	0.5 U	0.5 U
Vinyl Chloride	µg/l	-	2	0.5 U	0.5 U	0.5 U	**0.6 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	µg/l	-	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	0.5 U	0.5 U

Notes and Abbreviations
µg/L - micrograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.
Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-MW-001A	JS-MW-001A	JS-MW-001B	JS-MW-001C	JS-MW-002A	JS-MW-003A	JS-MW-003B	JS-MW-003C	JS-MW-004A	JS-MW-004B	JS-MW-004C
			Sample Date:	01/09/2017	01/09/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017	01/10/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017
			Sample Type:	FD	N	N	N	N	N	N	N	N	N	N
Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD											
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)														
Aluminum	mg/l	-	-	0.0868 U	0.0868 U	0.222 J	0.0868 U	0.423	0.313 J	0.0868 U	1.92	0.126 J	0.605	0.231 J
Antimony	mg/l	-	0.003	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U
Arsenic	mg/l	-	0.025	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Barium	mg/l	-	1	0.0626	0.063	0.132	0.0728	0.0895	0.0204	0.129	0.218	0.0289	0.0983	0.395
Beryllium	mg/l	0.003	-	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U
Cadmium	mg/l	-	0.005	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.0007 J	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U
Calcium	mg/l	-	-	73.2	72.3	85	122	55	24.6	102	82	43.6	86	81.7
Chromium	mg/l	-	0.05	0.0277 J	0.0271 J	0.0018 U	0.0018 U	0.0183 J	0.0019 J	0.0018 U	0.0032 J	0.002 J	0.0019 J	0.0022 J
Cobalt	mg/l	-	-	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U
Copper	mg/l	-	0.2	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0049 J	0.0236 U	0.0041 U	0.0041 U	0.0043 J	0.0041 U	0.0041 U
Iron	mg/l	-	0.3	0.0747 U	0.0747 U	0.162 J	0.165 J	3.43	0.0747 U	0.0912 J	2.06	0.245 J	0.828	0.357 J
Lead	mg/l	-	0.025	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U
Magnesium	mg/l	35	-	14.8 J	14.6 J	16.9	28.1 J	8.51	4.59 J	19.9 J	19.1	9.32 J	16.4	18.5 J
Manganese	mg/l	-	0.3	0.0018 U	0.0018 U	0.41	0.847	0.392	0.0029 J	0.485	0.465	0.0176	0.578	0.386
Mercury	mg/l	-	0.0007	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U
Nickel	mg/l	-	0.1	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U
Potassium	mg/l	-	-	4.03	4	4.26 J	1.92	2.67 J	1.76	9.19	2.71 J	3.39	7.78 J	1.7
Selenium	mg/l	-	0.01	0.032 J	0.0345 J	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Silver	mg/l	-	0.05	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U
Sodium	mg/l	-	20	39.6 J	39.2 J	100	118 J	31.2	29.4 J	131 J	70.2	74.3 J	107	56.3 J
Thallium	mg/l	0.0005	-	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U
Vanadium	mg/l	-	-	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0019 J	0.0016 U	0.0016 U	0.0016 U
Zinc	mg/l	2	-	0.0056 J	0.0054 U	0.0054 U	0.0054 U	0.0263 J	0.0149 J	0.0054 U	0.0078 J	0.0054 U	0.0054 U	0.0054 U
Total Cyanide by USEPA Method 9010														
Total Cyanide (water)	mg/l	-	0.2	na	na	na	na	na	na	na	na	na	na	na
Polychlorined Biphenyls (PCBs) by USEPA Method 8082														
Aroclor-1016	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1221	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1232	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1242	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1248	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1254	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1260	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1262	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1268	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Pesticides by USEPA Method 8081														
Aldrin	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Alpha BHC	µg/l	-	0.01	na	na	na	na	na	na	na	na	na	na	na
Alpha Chlordane	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Beta BHC	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Delta BHC	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Dieldrin	µg/l	-	0.004	na	na	na	na	na	na	na	na	na	na	na

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-MW-001A	JS-MW-001A	JS-MW-001B	JS-MW-001C	JS-MW-002A	JS-MW-003A	JS-MW-003B	JS-MW-003C	JS-MW-004A	JS-MW-004B	JS-MW-004C
			Sample Date:	01/09/2017	01/09/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017	01/10/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017
			Sample Type:	FD	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**											
Endosulfan I	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Endosulfan II	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Endosulfan Sulfate	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Endrin	µg/l	-	0	na	na	na	na	na	na	na	na	na	na	na
Endrin Aldehyde	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Endrin Ketone	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Gamma Chlordane	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
gamma-BHC (Lindane)	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Heptachlor	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Heptachlor Epoxide	µg/l	-	0.03	na	na	na	na	na	na	na	na	na	na	na
Methoxychlor	µg/l	-	35	na	na	na	na	na	na	na	na	na	na	na
p,p-DDD	µg/l	-	0.3	na	na	na	na	na	na	na	na	na	na	na
p,p-DDE	µg/l	-	0.2	na	na	na	na	na	na	na	na	na	na	na
p,p-DDT	µg/l	-	0.2	na	na	na	na	na	na	na	na	na	na	na
Toxaphene	µg/l	-	0.06	na	na	na	na	na	na	na	na	na	na	na
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270														
1,1'-Biphenyl	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
1,2,4,5-Tetrachlorobenzene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
1,4-Dioxane	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,2'-oxybis(1-Chloropropane)	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2,3,4,6-Tetrachlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,4-Dichlorophenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
2,4-Dimethylphenol	µg/l	50	1	na	na	na	na	na	na	na	na	na	na	na
2,4-Dinitrophenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2-Chloronaphthalene	µg/l	10	-	na	na	na	na	na	na	na	na	na	na	na
2-Chlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2-Methylnaphthalene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2-Methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2-Nitrophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
3-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
4,6-Dinitro-2-methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Bromophenyl-phenylether	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Chloroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	JS-MW-001A 01/09/2017 FD	JS-MW-001A 01/09/2017 N	JS-MW-001B 01/04/2017 N	JS-MW-001C 01/10/2017 N	JS-MW-002A 01/04/2017 N	JS-MW-003A 01/10/2017 N	JS-MW-003B 01/10/2017 N	JS-MW-003C 01/04/2017 N	JS-MW-004A 01/10/2017 N	JS-MW-004B 01/04/2017 N	JS-MW-004C 01/10/2017 N
4-Chlorophenyl-phenylether	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
4-Nitrophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Acenaphthene	µg/l	20	20	na	na	na	na	na	na	na	na	na	na	na
Acenaphthylene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Acetophenone	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Anthracene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Atrazine	µg/l	-	7.5	na	na	na	na	na	na	na	na	na	na	na
Benzaldehyde	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(a)anthracene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(a)pyrene	µg/l	-	0	na	na	na	na	na	na	na	na	na	na	na
Benzo(b)fluoranthene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(g,h,i)perylene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(k)fluoranthene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
bis(2-Chloroethoxy)methane	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
bis(2-Chloroethyl)ether	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
bis(2-Ethylhexyl)phthalate	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Butylbenzylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Caprolactam	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Carbazole	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Chrysene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Dibenz(a,h)anthracene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Dibenzofuran	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Diethylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Dimethylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Di-n-butylphthalate	µg/l	-	50	na	na	na	na	na	na	na	na	na	na	na
Di-n-octylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Fluoranthene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Fluorene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Hexachlorobenzene	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Hexachlorobutadiene	µg/l	-	0.5	na	na	na	na	na	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Hexachloroethane	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Isophorone	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Naphthalene	µg/l	10	-	na	na	na	na	na	na	na	na	na	na	na
Nitrobenzene	µg/l	-	0.4	na	na	na	na	na	na	na	na	na	na	na
N-Nitroso-di-n-propylamine	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
N-Nitrosodiphenylamine	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Pentachlorophenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
Phenanthrene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Phenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
Pyrene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	JS-MW-001A	JS-MW-001A	JS-MW-001B	JS-MW-001C	JS-MW-002A	JS-MW-003A	JS-MW-003B	JS-MW-003C	JS-MW-004A	JS-MW-004B	JS-MW-004C
			Sample Date:	01/09/2017	01/09/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017	01/10/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017
			Sample Type:	FD	N	N	N	N	N	N	N	N	N	N
Volatile Organic Compounds (VOCs) by USEPA Method 8260														
1,1,1-Trichloroethane	µg/l	-	5	**19**	**19**	**300**	**2**	**1**	0.5 U	**190**	**3**	0.5 U	**8**	0.5 U
1,1,2,2-Tetrachloroethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/l	-	1	0.5 U	0.5 U	**0.7 J**	**0.5 J**	0.5 U	0.5 U	**0.5 J**	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/l	-	5	**2**	**1**	**100**	**290**	**0.6 J**	0.5 U	**110**	**8**	0.5 U	**150**	0.5 U
1,1-Dichloroethene	µg/l	-	5	**0.6 J**	**0.6 J**	**33**	**53**	0.5 U	0.5 U	**45**	**3**	0.5 U	**35**	0.5 U
1,2,3-Trichlorobenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	µg/l	-	0.04	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dibromoethane	µg/l	-	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	µg/l	-	0.6	0.5 U	0.5 U	**1**	0.5 U	0.5 U	0.5 U	**0.8 J**	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/l	-	1	0.5 U	0.5 U	0.5 U	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	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	µg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
2-Hexanone	µg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	µg/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Acetone	µg/l	50	-	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Benzene	µg/l	-	1	0.5 U	0.5 U	0.5 U	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	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	µg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
Carbon Disulfide	µg/l	60		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	µg/l	-	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	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/l	-	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	0.5 U	0.5 U	0.5 U
Chloroethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
Chloroform	µg/l	-	7	0.5 U	0.5 U	**2**	0.5 U	0.5 U	0.5 U	**0.9 J**	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/l	-	5	**8**	**8**	**18**	**3**	**4**	0.5 U	**6**	**1**	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	µg/l	-	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	µg/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	µg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
Ethylbenzene	µg/l	-	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	0.5 U	0.5 U	0.5 U
Freon 113	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isopropylbenzene (Cumene)	ug/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylene	ug/l	-	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	0.5 U	0.5 U	0.5 U
Methyl Acetate	ug/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl Tertiary Butyl Ether (MTBE	ug/l	10	-	0.5 U	0.5 U	0.5 U	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	µg/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

Table 11
Analytical Results for Other Parameters from Groundwater Samples
from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-MW-001A	JS-MW-001A	JS-MW-001B	JS-MW-001C	JS-MW-002A	JS-MW-003A	JS-MW-003B	JS-MW-003C	JS-MW-004A	JS-MW-004B	JS-MW-004C
			Sample Date:	01/09/2017	01/09/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017	01/10/2017	01/04/2017	01/10/2017	01/04/2017	01/10/2017
			Sample Type:	FD	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**											
n-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	µg/l	-	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	µg/l	-	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	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	µg/l	-	5	**0.6 J**	**0.6 J**	**1**	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	µg/l	-	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	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/l	-	5	0.5 U	0.5 U	**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
trans-1,3-Dichloropropene	µg/l	-	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	µg/l	-	5	**130**	**130**	**1100**	**580**	**21**	**2**	**810**	**570**	0.5 U	**9**	0.5 U
Trichlorofluoromethane	µg/l	-	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
Vinyl Chloride	µg/l	-	2	0.5 U	0.5 U	**2**	**3**	**0.9 J**	0.5 U	**1**	0.5 U	0.5 U	**2**	0.5 U
Xylene (Total)	µg/l	-	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	0.5 U	0.5 U	0.5 U

Notes and Abbreviations
µg/L - micrograms per liter
mg/L - milligrams per liter
I - Samples with location IDs ending in "I" were collected using inertial pump
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NYSDEC TOGS111 - Standards listed are the New York State
Department of Environmental Conservation (NYSDEC) Division of
Water Technical and Operational Guidance Series (TOGS) 1.1.1 values
for Class GA groundwater.
Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

ERM

			Location ID:	JS-MW-005A	OS-MW-024B	OS-MW-025A	OS-MW-025B	OS-MW-025C	OS-MW-026A	OS-MW-026B	OS-MW-026B	OS-MW-026C	OS-MW-027A	OS-MW-027A
			Sample Date:	01/04/2017	01/06/2017	01/06/2017	01/09/2017	01/06/2017	01/06/2017	01/06/2017	01/06/2017	01/09/2017	01/10/2017	01/11/2017
			Sample Type:	N	N	N	N	N	N	FD	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**											
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)														
Aluminum	mg/l	-	-	**0.0978 J**	**0.117 J**	0.0868 U	0.0868 U	0.67 U	0.0868 U	0.0868 U	0.0868 U	**0.161 J**	0.0868 U	na
Antimony	mg/l	-	0.003	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	na
Arsenic	mg/l	-	0.025	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	na
Barium	mg/l	-	1	**0.0125**	**0.208**	**0.0571**	**0.205**	**0.12**	**0.052**	**0.095**	**0.0941**	**0.109**	**0.0397**	na
Beryllium	mg/l	0.003	-	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	0.00067 U	na
Cadmium	mg/l	-	0.005	0.00049 U	0.00049 U	0.00049 U	**0.00083 J**	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	na
Calcium	mg/l	-	-	**24**	**131**	**60.5**	**131**	**126**	**61.7**	**94.9**	**95**	**75.1**	**44.5**	na
Chromium	mg/l	-	0.05	0.0018 U	0.0018 U	**0.0021 J**	**0.0025 J**	**0.0024 J**	0.0018 U	0.0018 U	0.0018 U	**0.0022 J**	0.0018 U	na
Cobalt	mg/l	-	-	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	na
Copper	mg/l	-	0.2	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U	**0.183**	0.0041 U	0.0041 U	0.0055 U	0.0041 U	na
Iron	mg/l	-	0.3	**0.111 J**	**0.34 J**	0.0747 U	0.0747 U	**0.964**	0.0747 U	**0.136 J**	**0.125 J**	**0.42**	0.0747 U	na
Lead	mg/l	-	0.025	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	na
Magnesium	mg/l	35	-	**4.76**	**28.5**	**9.85**	**20.1 J**	**27.7**	**8.59**	**16.1**	**16**	**26.3 J**	**6.14 J**	na
Manganese	mg/l	-	0.3	**0.0177**	**0.573**	0.004 U	**0.0183**	**0.454**	0.0339 U	**0.531**	**0.526**	**0.363**	**0.016**	na
Mercury	mg/l	-	0.0007	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U	na
Nickel	mg/l	-	0.1	0.0028 U	0.0028 U	0.0028 U	**0.0035 J**	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	0.0028 U	na
Potassium	mg/l	-	-	**1.84 J**	**5.95 J**	**4.12 J**	**6.02**	**10.2 J**	**4.29 J**	**4.65 J**	**4.69 J**	**4.34**	**5.07**	na
Selenium	mg/l	-	0.01	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	na
Silver	mg/l	-	0.05	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U	na
Sodium	mg/l	-	20	**28.9**	**141**	**90**	**153 J**	**132**	**165**	**110**	**110**	**81.1 J**	**159 J**	na
Thallium	mg/l	0.0005	-	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	na
Vanadium	mg/l	-	-	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	na
Zinc	mg/l	2	-	0.0054 U	0.0054 U	0.0054 U	**0.0172 J**	0.0054 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	na
Total Cyanide by USEPA Method 9010														
Total Cyanide (water)	mg/l	-	0.2	na	na	na	na	na	na	na	na	na	na	na
Polychlorined Biphenyls (PCBs) by USEPA Method 8082														
Aroclor-1016	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1221	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1232	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1242	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1248	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1254	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1260	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1262	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Aroclor-1268	µg/l	-	0.09	na	na	na	na	na	na	na	na	na	na	na
Pesticides by USEPA Method 8081														
Aldrin	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Alpha BHC	µg/l	-	0.01	na	na	na	na	na	na	na	na	na	na	na
Alpha Chlordane	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Beta BHC	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Delta BHC	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Dieldrin	µg/l	-	0.004	na	na	na	na	na	na	na	na	na	na	na

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

ERM

			Location ID:	JS-MW-005A	OS-MW-024B	OS-MW-025A	OS-MW-025B	OS-MW-025C	OS-MW-026A	OS-MW-026B	OS-MW-026B	OS-MW-026C	OS-MW-027A	OS-MW-027A
			Sample Date:	01/04/2017	01/06/2017	01/06/2017	01/09/2017	01/06/2017	01/06/2017	01/06/2017	01/06/2017	01/09/2017	01/10/2017	01/11/2017
			Sample Type:	N	N	N	N	N	N	FD	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**											
Endosulfan I	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Endosulfan II	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Endosulfan Sulfate	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Endrin	µg/l	-	0	na	na	na	na	na	na	na	na	na	na	na
Endrin Aldehyde	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Endrin Ketone	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Gamma Chlordane	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
gamma-BHC (Lindane)	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Heptachlor	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Heptachlor Epoxide	µg/l	-	0.03	na	na	na	na	na	na	na	na	na	na	na
Methoxychlor	µg/l	-	35	na	na	na	na	na	na	na	na	na	na	na
p,p-DDD	µg/l	-	0.3	na	na	na	na	na	na	na	na	na	na	na
p,p-DDE	µg/l	-	0.2	na	na	na	na	na	na	na	na	na	na	na
p,p-DDT	µg/l	-	0.2	na	na	na	na	na	na	na	na	na	na	na
Toxaphene	µg/l	-	0.06	na	na	na	na	na	na	na	na	na	na	na
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270														
1,1'-Biphenyl	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
1,2,4,5-Tetrachlorobenzene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
1,4-Dioxane	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,2'-oxybis(1-Chloropropane)	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2,3,4,6-Tetrachlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2,4-Dichlorophenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
2,4-Dimethylphenol	µg/l	50	1	na	na	na	na	na	na	na	na	na	na	na
2,4-Dinitrophenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2-Chloronaphthalene	µg/l	10	-	na	na	na	na	na	na	na	na	na	na	na
2-Chlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2-Methylnaphthalene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2-Methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
2-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
2-Nitrophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
3-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
4,6-Dinitro-2-methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Bromophenyl-phenylether	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Chloroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na

Table 11
Analytical Results for Other Parameters from Groundwater Samples
from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

ERM

Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	Location ID: JS-MW-005A Sample Date: 01/04/2017 Sample Type: N	OS-MW-024B 01/06/2017 N	OS-MW-025A 01/06/2017 N	OS-MW-025B 01/09/2017 N	OS-MW-025C 01/06/2017 N	OS-MW-026A 01/06/2017 N	OS-MW-026B 01/06/2017 FD	OS-MW-026B 01/06/2017 N	OS-MW-026C 01/09/2017 N	OS-MW-027A 01/10/2017 N	OS-MW-027A 01/11/2017 N
4-Chlorophenyl-phenylether	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
4-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
4-Nitrophenol	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Acenaphthene	µg/l	20	20	na	na	na	na	na	na	na	na	na	na	na
Acenaphthylene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Acetophenone	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Anthracene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Atrazine	µg/l	-	7.5	na	na	na	na	na	na	na	na	na	na	na
Benzaldehyde	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(a)anthracene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(a)pyrene	µg/l	-	0	na	na	na	na	na	na	na	na	na	na	na
Benzo(b)fluoranthene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(g,h,i)perylene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Benzo(k)fluoranthene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
bis(2-Chloroethoxy)methane	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
bis(2-Chloroethyl)ether	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
bis(2-Ethylhexyl)phthalate	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Butylbenzylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Caprolactam	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Carbazole	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Chrysene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Dibenz(a,h)anthracene	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Dibenzofuran	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
Diethylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Dimethylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Di-n-butylphthalate	µg/l	-	50	na	na	na	na	na	na	na	na	na	na	na
Di-n-octylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Fluoranthene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Fluorene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Hexachlorobenzene	µg/l	-	0.04	na	na	na	na	na	na	na	na	na	na	na
Hexachlorobutadiene	µg/l	-	0.5	na	na	na	na	na	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Hexachloroethane	µg/l	-	5	na	na	na	na	na	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	µg/l	0.002	-	na	na	na	na	na	na	na	na	na	na	na
Isophorone	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Naphthalene	µg/l	10	-	na	na	na	na	na	na	na	na	na	na	na
Nitrobenzene	µg/l	-	0.4	na	na	na	na	na	na	na	na	na	na	na
N-Nitroso-di-n-propylamine	µg/l	-	-	na	na	na	na	na	na	na	na	na	na	na
N-Nitrosodiphenylamine	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Pentachlorophenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
Phenanthrene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na
Phenol	µg/l	-	1	na	na	na	na	na	na	na	na	na	na	na
Pyrene	µg/l	50	-	na	na	na	na	na	na	na	na	na	na	na

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	JS-MW-005A	OS-MW-024B	OS-MW-025A	OS-MW-025B	OS-MW-025C	OS-MW-026A	OS-MW-026B	OS-MW-026B	OS-MW-026C	OS-MW-027A	OS-MW-027A
			Sample Date:	01/04/2017	01/06/2017	01/06/2017	01/09/2017	01/06/2017	01/06/2017	01/06/2017	01/06/2017	01/09/2017	01/10/2017	01/11/2017
			Sample Type:	N	N	N	N	N	N	FD	N	N	N	N
Volatile Organic Compounds (VOCs) by USEPA Method 8260														
1,1,1-Trichloroethane	μg/l	-	5	0.5 U	**10**	**4**	**15**	**8**	0.5 U	**1500**	**1700**	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	μg/l	-	5	0.5 U	0.5 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
1,1,2-Trichloroethane	μg/l	-	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	**0.7 J**	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	μg/l	-	5	0.5 U	**33**	0.5 U	**0.6 J**	**2**	0.5 U	**140**	**150**	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	μg/l	-	5	0.5 U	**17**	0.5 U	**0.9 J**	0.5 U	0.5 U	**60**	**72**	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	μg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	μg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	μg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	μg/l	-	0.04	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U
1,2-Dibromoethane	μg/l	-	0.0006	0.5 U	0.5 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
1,2-Dichlorobenzene	μg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	μg/l	-	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1 J**	**0.9 J**	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	μg/l	-	1	0.5 U	0.5 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
1,3,5-Trimethylbenzene	μg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	μg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	μg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
2-Butanone	μg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	6 U	3 U	3 U	3 U	**3 J**
2-Hexanone	μg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	6 U	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	μg/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	6 U	3 U	3 U	3 U	3 U
Acetone	μg/l	50	-	6 U	6 U	6 U	6 U	6 U	6 U	12 U	6 U	6 U	6 U	**23**
Benzene	μg/l	-	1	0.5 U	0.5 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
Bromochloromethane	μg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Bromodichloromethane	μg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	**0.5 J**	0.5 U
Bromoform	μg/l	50	-	0.5 U	0.5 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
Bromomethane	μg/l	-	5	0.5 U	0.5 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
Carbon Disulfide	μg/l	60		1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	μg/l	-	5	0.5 U	0.5 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
Chlorobenzene	μg/l	-	5	0.5 U	0.5 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
Chloroethane	μg/l	-	5	0.5 U	0.5 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
Chloroform	μg/l	-	7	0.5 U	0.5 U	0.5 U	**0.7 J**	0.5 U	0.5 U	**2 J**	**2**	0.5 U	**3**	0.5 U
Chloromethane	μg/l	-	5	0.5 U	0.5 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
cis-1,2-Dichloroethene	μg/l	-	5	0.5 U	0.5 U	0.5 U	**0.6 J**	0.5 U	0.5 U	**10**	**11**	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	μg/l	-	0.4	0.5 U	0.5 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
Cyclohexane	μg/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U
Dibromochloromethane	μg/l	50	-	0.5 U	0.5 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
Dichlorodifluoromethane	μg/l	-	5	0.5 U	0.5 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
Ethylbenzene	μg/l	-	5	0.5 U	0.5 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
Freon 113	μg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U
Isopropylbenzene (Cumene)	ug/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
m+p-Xylene	ug/l	-	5	0.5 U	0.5 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
Methyl Acetate	ug/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Methyl Tertiary Butyl Ether (MTBE	ug/l	10	-	0.5 U	0.5 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
Methylcyclohexane	μg/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Methylene Chloride	μg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

			Location ID:	JS-MW-005A	OS-MW-024B	OS-MW-025A	OS-MW-025B	OS-MW-025C	OS-MW-026A	OS-MW-026B	OS-MW-026B	OS-MW-026C	OS-MW-027A	OS-MW-027A
			Sample Date:	01/04/2017	01/06/2017	01/06/2017	01/09/2017	01/06/2017	01/06/2017	01/06/2017	01/06/2017	01/09/2017	01/10/2017	01/11/2017
			Sample Type:	N	N	N	N	N	N	FD	N	N	N	N
Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD											
n-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
n-Propylbenzene	µg/l	-	50	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
o-Xylene	µg/l	-	5	0.5 U	0.5 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
p-Isopropyltoluene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Styrene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Tetrachloroethene	µg/l	-	5	0.5 U	0.5 U	**0.7 J**	0.5 U	0.5 U	0.5 U	1 U	**0.7 J**	0.5 U	0.5 U	0.5 U
Toluene	µg/l	-	5	0.5 U	0.5 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
trans-1,2-Dichloroethene	µg/l	-	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2 J**	**2**	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/l	-	0.4	0.5 U	0.5 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
Trichloroethene	µg/l	-	5	0.5 U	**2**	**4**	**37**	**9**	0.5 U	**1100**	**1300**	**1**	0.5 U	0.5 U
Trichlorofluoromethane	µg/l	-	5	0.5 UJ	0.5 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
Vinyl Chloride	µg/l	-	2	0.5 U	**0.9 J**	0.5 U	0.5 U	0.5 U	0.5 U	**1 J**	**2**	0.5 U	0.5 U	0.5 U
Xylene (Total)	µg/l	-	5	0.5 U	0.5 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

Notes and Abbreviations
µg/L - micrograms per liter
mg/L - milligrams per liter
I - Samples with location IDs ending in "I" were collected using inertial pu
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidar
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.

Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

ERM

Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	OS-MW-027A	OS-MW-027B	OS-MW-027C	OS-MW-028B	OS-MW-028C	OS-MW-030A	OS-MW-030B	OS-MW-030C	OS-MW-030D	OS-MW-031A	OS-MW-031B
			Sample Date:	01/11/2017	01/10/2017	01/10/2017	01/09/2017	01/06/2017	01/10/2017	01/09/2017	01/09/2017	01/09/2017	01/06/2017	01/06/2017
			Sample Type:	N	N	N	N	N	N	N	N	N	N	N
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)														
Aluminum	mg/l	-	-	na	**0.167 J**	**0.894**	0.0868 U	0.142 U	na	**15.9**	**2.35**	**2.72**	0.0868 U	**19.2**
Antimony	mg/l	-	0.003	na	0.0077 U	0.0077 U	0.0077 U	0.0077 U	na	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U
Arsenic	mg/l	-	0.025	na	**0.0114 J**	0.0097 U	0.0097 U	0.0097 U	na	**0.0166 J**	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Barium	mg/l	-	1	na	**0.133**	**0.113**	**0.292**	**0.388**	na	**1.14**	**0.464**	**0.448**	**0.0979**	**0.205**
Beryllium	mg/l	0.003	-	na	0.00067 U	0.00067 U	0.00067 U	0.00067 U	na	**0.0023 J**	0.00067 U	0.00067 U	0.00067 U	**0.0015 J**
Cadmium	mg/l	-	0.005	na	0.00049 U	0.00049 U	0.00049 U	0.00049 U	na	**0.00049 J**	0.00049 U	0.00049 U	0.00049 U	**0.0012 J**
Calcium	mg/l	-	-	na	**44.2**	**43.8**	**58.1**	**80.5**	na	**318**	**78.8**	**81.8**	**87.2**	**344**
Chromium	mg/l	-	0.05	na	0.0018 U	**0.0021 J**	0.0018 U	0.0018 U	na	**0.0197 J**	**0.0052 J**	**0.0024 J**	**0.0037 J**	**0.0594**
Cobalt	mg/l	-	-	na	0.0019 U	0.0019 U	0.0019 U	0.0019 U	na	**0.0196**	0.0019 U	0.0019 U	0.0019 U	**0.0276**
Copper	mg/l	-	0.2	na	0.0041 U	0.0053 U	0.0041 U	0.0041 U	na	**0.17**	0.0221 U	0.0146 U	**0.196**	**0.102**
Iron	mg/l	-	0.3	na	**0.331 J**	**1.27**	0.0747 U	**0.404**	na	**32**	**3.3**	**3.35**	0.0747 U	**42.7**
Lead	mg/l	-	0.025	na	0.0062 U	0.0062 U	0.0062 U	0.0062 U	na	**0.0525**	0.0062 U	0.0062 U	0.0062 U	**0.054**
Magnesium	mg/l	35	-	na	**10.1 J**	**10.1 J**	**12.9 J**	**17.2**	na	**52.9 J**	**17.7 J**	**18.2**	**10.9**	**64.6**
Manganese	mg/l	-	0.3	na	**0.216**	**0.234**	**0.206**	**0.41**	na	**4.29**	**0.446**	**0.486**	0.0114 U	**5.32**
Mercury	mg/l	-	0.0007	na	5E-05 U	5E-05 U	5E-05 U	5E-05 U	na	5E-05 U	5E-05 U	5E-05 U	5E-05 U	5E-05 U
Nickel	mg/l	-	0.1	na	0.0028 U	0.0028 U	0.0028 U	0.0028 U	na	**0.0273**	0.0028 U	**0.0035 J**	0.0028 U	**0.0799**
Potassium	mg/l	-	-	na	**1.81**	**2.74**	**1.36**	**1.58**	na	**5.94**	**2.32**	**2.28**	**4.49**	**12.2**
Selenium	mg/l	-	0.01	na	0.0097 U	0.0097 U	0.0097 U	0.0097 U	na	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Silver	mg/l	-	0.05	na	0.0019 U	0.0019 U	0.0019 U	0.0019 U	na	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U
Sodium	mg/l	-	20	na	**24.9 J**	**22.1 J**	**36.6 J**	**54.6**	na	**52.2 J**	**54.9 J**	**49.4**	**161**	**183**
Thallium	mg/l	0.0005	-	na	0.0094 U	0.0094 U	0.0094 U	0.0094 U	na	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U
Vanadium	mg/l	-	-	na	0.0016 U	0.0016 U	0.0016 U	0.0016 U	na	**0.0204**	**0.0031 J**	**0.0036 J**	0.0016 U	**0.0232**
Zinc	mg/l	2	-	na	0.0054 U	**0.0062 J**	0.0054 U	0.0054 U	na	**0.195**	**0.0112 J**	**0.0153 J**	0.0054 U	**0.179**
Total Cyanide by USEPA Method 9010														
Total Cyanide (water)	mg/l	-	0.2	na	na	na	na	na	na	na	na	na	0.005 U	na
Polychlorined Biphenyls (PCBs) by USEPA Method 8082														
Aroclor-1016	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.096 U	na	na
Aroclor-1221	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.096 U	na	na
Aroclor-1232	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.19 U	na	na
Aroclor-1242	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.096 U	na	na
Aroclor-1248	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.096 U	na	na
Aroclor-1254	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.096 U	na	na
Aroclor-1260	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.14 U	na	na
Aroclor-1262	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.19 U	na	na
Aroclor-1268	µg/l	-	0.09	na	na	na	na	na	na	na	na	0.15 U	na	na
Pesticides by USEPA Method 8081														
Aldrin	µg/l	-	-	na	na	na	na	na	na	na	na	0.0019 U	na	na
Alpha BHC	µg/l	-	0.01	na	na	na	na	na	na	na	na	0.0029 U	na	na
Alpha Chlordane	µg/l	-	-	na	na	na	na	na	na	na	na	0.0029 U	na	na
Beta BHC	µg/l	-	0.04	na	na	na	na	na	na	na	na	0.0033 U	na	na
Delta BHC	µg/l	-	0.04	na	na	na	na	na	na	na	na	0.0033 U	na	na
Dieldrin	µg/l	-	0.004	na	na	na	na	na	na	na	na	0.0051 U	na	na

Table 11
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			Location ID:	OS-MW-027A	OS-MW-027B	OS-MW-027C	OS-MW-028B	OS-MW-028C	OS-MW-030A	OS-MW-030B	OS-MW-030C	OS-MW-030D	OS-MW-031A	OS-MW-031B
			Sample Date:	01/11/2017	01/10/2017	01/10/2017	01/09/2017	01/06/2017	01/10/2017	01/09/2017	01/09/2017	01/09/2017	01/06/2017	01/06/2017
			Sample Type:	N	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**											
Endosulfan I	µg/l	-	-	na	na	na	na	na	na	na	na	0.0041 U	na	na
Endosulfan II	µg/l	-	-	na	na	na	na	na	na	na	na	0.014 U	na	na
Endosulfan Sulfate	µg/l	-	-	na	na	na	na	na	na	na	na	0.0056 U	na	na
Endrin	µg/l	-	0	na	na	na	na	na	na	na	na	0.0078 U	na	na
Endrin Aldehyde	µg/l	-	5	na	na	na	na	na	na	na	na	0.019 U	na	na
Endrin Ketone	µg/l	-	5	na	na	na	na	na	na	na	na	0.0048 U	na	na
Gamma Chlordane	µg/l	-	-	na	na	na	na	na	na	na	na	0.0067 U	na	na
gamma-BHC (Lindane)	µg/l	-	0.04	na	na	na	na	na	na	na	na	0.0019 U	na	na
Heptachlor	µg/l	-	0.04	na	na	na	na	na	na	na	na	0.0019 U	na	na
Heptachlor Epoxide	µg/l	-	0.03	na	na	na	na	na	na	na	na	0.0022 U	na	na
Methoxychlor	µg/l	-	35	na	na	na	na	na	na	na	na	0.029 U	na	na
p,p-DDD	µg/l	-	0.3	na	na	na	na	na	na	na	na	0.0048 U	na	na
p,p-DDE	µg/l	-	0.2	na	na	na	na	na	na	na	na	0.0048 U	na	na
p,p-DDT	µg/l	-	0.2	na	na	na	na	na	na	na	na	0.005 UJ	na	na
Toxaphene	µg/l	-	0.06	na	na	na	na	na	na	na	na	0.29 U	na	na
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270														
1,1'-Biphenyl	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
1,2,4,5-Tetrachlorobenzene	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
1,4-Dioxane	µg/l	-	-	na	na	na	na	na	na	na	na	1 U	na	na
2,2'-oxybis(1-Chloropropane)	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
2,3,4,6-Tetrachlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
2,4,5-Trichlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
2,4,6-Trichlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
2,4-Dichlorophenol	µg/l	-	1	na	na	na	na	na	na	na	na	0.5 U	na	na
2,4-Dimethylphenol	µg/l	50	1	na	na	na	na	na	na	na	na	0.5 U	na	na
2,4-Dinitrophenol	µg/l	-	1	na	na	na	na	na	na	na	na	10 U	na	na
2,4-Dinitrotoluene	µg/l	-	5	na	na	na	na	na	na	na	na	1 U	na	na
2,6-Dinitrotoluene	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
2-Chloronaphthalene	µg/l	10	-	na	na	na	na	na	na	na	na	0.4 U	na	na
2-Chlorophenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
2-Methylnaphthalene	µg/l	-	-	na	na	na	na	na	na	na	na	0.1 U	na	na
2-Methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
2-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
2-Nitrophenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
3,3'-Dichlorobenzidine	µg/l	-	5	na	na	na	na	na	na	na	na	2 U	na	na
3-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
4,6-Dinitro-2-methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	5 U	na	na
4-Bromophenyl-phenylether	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
4-Chloro-3-methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
4-Chloroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	2 U	na	na

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Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	OS-MW-027A	OS-MW-027B	OS-MW-027C	OS-MW-028B	OS-MW-028C	OS-MW-030A	OS-MW-030B	OS-MW-030C	OS-MW-030D	OS-MW-031A	OS-MW-031B
			Sample Date:	01/11/2017	01/10/2017	01/10/2017	01/09/2017	01/06/2017	01/10/2017	01/09/2017	01/09/2017	01/09/2017	01/06/2017	01/06/2017
			Sample Type:	N	N	N	N	N	N	N	N	N	N	N
4-Chlorophenyl-phenylether	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
4-Methylphenol	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
4-Nitroaniline	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
4-Nitrophenol	µg/l	-	-	na	na	na	na	na	na	na	na	10 U	na	na
Acenaphthene	µg/l	20	20	na	na	na	na	na	na	na	na	0.1 U	na	na
Acenaphthylene	µg/l	-	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Acetophenone	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
Anthracene	µg/l	50	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Atrazine	µg/l	-	7.5	na	na	na	na	na	na	na	na	2 U	na	na
Benzaldehyde	µg/l	-	-	na	na	na	na	na	na	na	na	1 U	na	na
Benzo(a)anthracene	µg/l	0.002	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Benzo(a)pyrene	µg/l	-	0	na	na	na	na	na	na	na	na	0.1 U	na	na
Benzo(b)fluoranthene	µg/l	0.002	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Benzo(g,h,i)perylene	µg/l	-	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Benzo(k)fluoranthene	µg/l	0.002	-	na	na	na	na	na	na	na	na	0.1 U	na	na
bis(2-Chloroethoxy)methane	µg/l	-	5	na	na	na	na	na	na	na	na	0.5 U	na	na
bis(2-Chloroethyl)ether	µg/l	-	1	na	na	na	na	na	na	na	na	0.5 U	na	na
bis(2-Ethylhexyl)phthalate	µg/l	-	5	na	na	na	na	na	na	na	na	2 U	na	na
Butylbenzylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	2 U	na	na
Caprolactam	µg/l	-	-	na	na	na	na	na	na	na	na	5 U	na	na
Carbazole	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
Chrysene	µg/l	0.002	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Dibenz(a,h)anthracene	µg/l	-	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Dibenzofuran	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
Diethylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	2 U	na	na
Dimethylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	2 U	na	na
Di-n-butylphthalate	µg/l	-	50	na	na	na	na	na	na	na	na	2 U	na	na
Di-n-octylphthalate	µg/l	50	-	na	na	na	na	na	na	na	na	2 U	na	na
Fluoranthene	µg/l	50	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Fluorene	µg/l	50	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Hexachlorobenzene	µg/l	-	0.04	na	na	na	na	na	na	na	na	0.1 U	na	na
Hexachlorobutadiene	µg/l	-	0.5	na	na	na	na	na	na	na	na	0.5 U	na	na
Hexachlorocyclopentadiene	µg/l	-	5	na	na	na	na	na	na	na	na	5 U	na	na
Hexachloroethane	µg/l	-	5	na	na	na	na	na	na	na	na	1 U	na	na
Indeno(1,2,3-cd)pyrene	µg/l	0.002	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Isophorone	µg/l	50	-	na	na	na	na	na	na	na	na	0.5 U	na	na
Naphthalene	µg/l	10	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Nitrobenzene	µg/l	-	0.4	na	na	na	na	na	na	na	na	0.5 U	na	na
N-Nitroso-di-n-propylamine	µg/l	-	-	na	na	na	na	na	na	na	na	0.5 U	na	na
N-Nitrosodiphenylamine	µg/l	50	-	na	na	na	na	na	na	na	na	0.5 U	na	na
Pentachlorophenol	µg/l	-	1	na	na	na	na	na	na	na	na	1 UJ	na	na
Phenanthrene	µg/l	50	-	na	na	na	na	na	na	na	na	0.1 U	na	na
Phenol	µg/l	-	1	na	na	na	na	na	na	na	na	0.5 U	na	na
Pyrene	µg/l	50	-	na	na	na	na	na	na	na	na	0.1 U	na	na

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Constituent	Units	NYSDEC TOGS111 GA GUIDANCE	NYSDEC TOGS111 GA STANDARD	OS-MW-027A	OS-MW-027B	OS-MW-027C	OS-MW-028B	OS-MW-028C	OS-MW-030A	OS-MW-030B	OS-MW-030C	OS-MW-030D	OS-MW-031A	OS-MW-031B
			Sample Date:	01/11/2017	01/10/2017	01/10/2017	01/09/2017	01/06/2017	01/10/2017	01/09/2017	01/09/2017	01/09/2017	01/06/2017	01/06/2017
			Sample Type:	N	N	N	N	N	N	N	N	N	N	N
Volatile Organic Compounds (VOCs) by USEPA Method 8260														
1,1,1-Trichloroethane	µg/l	-	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	0.5 U	**160**	0.5 U
1,1,2,2-Tetrachloroethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/l	-	1	0.5 U	0.5 U	0.5 U	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	µg/l	-	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	0.5 U	**2**	**17**
1,1-Dichloroethene	µg/l	-	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	0.5 U	**4**	0.5 U
1,2,3-Trichlorobenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	µg/l	-	0.04	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dibromoethane	µg/l	-	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	µg/l	-	0.6	0.5 U	0.5 U	0.5 U	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	µg/l	-	1	0.5 U	0.5 U	0.5 U	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	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	µg/l	-	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	µg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
2-Hexanone	µg/l	50	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	µg/l	-	-	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Acetone	µg/l	50	-	**8 J**	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Benzene	µg/l	-	1	0.5 U	0.5 U	0.5 U	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	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	µg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
Carbon Disulfide	µg/l	60		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	µg/l	-	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	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/l	-	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	0.5 U	0.5 U	0.5 U
Chloroethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
Chloroform	µg/l	-	7	**2**	0.5 U	**0.8 J**	0.5 U	0.5 U	**0.8 J**	0.5 U	0.5 U	0.5 U	**0.7 J**	**0.7 J**
Chloromethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/l	-	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	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	µg/l	-	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	µg/l	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	µg/l	50	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
Ethylbenzene	µg/l	-	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	0.5 U	0.5 U	0.5 U
Freon 113	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isopropylbenzene (Cumene)	ug/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m+p-Xylene	ug/l	-	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	0.5 U	0.5 U	0.5 U
Methyl Acetate	ug/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl Tertiary Butyl Ether (MTBE	ug/l	10	-	0.5 U	0.5 U	0.5 U	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	µg/l	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/l	-	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

Table 11
Analytical Results for Other Parameters from Groundwater Samples from Monitoring Wells
Former Oak Materials Fluorglas Division - John Street

			Location ID:	OS-MW-027A	OS-MW-027B	OS-MW-027C	OS-MW-028B	OS-MW-028C	OS-MW-030A	OS-MW-030B	OS-MW-030C	OS-MW-030D	OS-MW-031A	OS-MW-031B
			Sample Date:	01/11/2017	01/10/2017	01/10/2017	01/09/2017	01/06/2017	01/10/2017	01/09/2017	01/09/2017	01/09/2017	01/06/2017	01/06/2017
			Sample Type:	N	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NYSDEC TOGS111 GA GUIDANCE**	**NYSDEC TOGS111 GA STANDARD**											
n-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	µg/l	-	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	µg/l	-	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	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	µg/l	-	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	µg/l	-	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	0.5 U	0.5 U	0.5 U
Toluene	µg/l	-	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	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/l	-	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	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/l	-	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	µg/l	-	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	0.5 U	**56**	0.5 U
Trichlorofluoromethane	µg/l	-	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	0.5 U	0.5 U	0.5 U
Vinyl Chloride	µg/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	0.5 U	0.5 U	0.5 U
Xylene (Total)	µg/l	-	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	0.5 U	0.5 U	0.5 U

Notes and Abbreviations
µg/L - micrograms per liter
mg/L - milligrams per liter
I - Samples with location IDs ending in "I" were collected using inertial pu
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidar
NYSDEC TOGS111 - Standards listed are the New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 values for Class GA groundwater.
Exceedance of NYS GA Guidance
Exceedance of NYS GA Standard

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value	JS-B-001	JS-B-001	JS-B-001	JS-B-002	JS-B-002	JS-B-002	JS-B-003	JS-B-003	JS-B-003	JS-B-003
Sample Date:										08/16/2016	08/16/2016	08/16/2016	08/11/2016	08/11/2016	08/12/2016	07/21/2016	07/21/2016	08/08/2016	08/08/2016
Sample Depth:										18 - 19 ft	18 - 20 ft	60 - 64 ft	6 - 8 ft	9 - 10 ft	60 - 64 ft	0 - 2 in	2 - 12 in	9 - 11 ft	15 - 17 ft
Sample Type:										N	N	N	N	N	N	N	N	N	N
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)																			
Aluminum	mg/kg	-	-	-	-	-	-	-	-	na	**31300**	**16200**	**12800**	**17700**	**10400**	**5050**	**7430**	**22800**	**23100**
Antimony	mg/kg	-	-	-	-	-	-	-	-	na	**2.21 J**	**1.4 J**	**2.11 J**	**1.56 J**	**1.18 J**	3.62 U	4.23 U	3.6 U	4.48 U
Arsenic	mg/kg	13	16	16	16	16	16	13	-	na	**12.8**	**8.32**	**8.72 J**	**8.29**	**5.19**	**8.85**	**7.18**	**6.05 J**	**10.2**
Barium	mg/kg	350	820	350	400	400	10000	433	-	na	**288 J**	**104**	**57.4**	**125**	**96.1**	**48.9**	**80.3**	**180**	**225**
Beryllium	mg/kg	7.2	47	14	72	590	2700	10	-	na	**1.33**	**0.671 J**	**0.475 J**	**0.702 J**	**0.572 J**	**0.162 J**	**0.289 J**	**1.36 J**	**1.1 J**
Cadmium	mg/kg	2.5	7.5	2.5	4.3	9.3	60	4	-	na	**0.51 J**	0.0449 U	**5.9**	**0.536 J**	0.0412 U	**0.726 J**	**0.903**	**0.355 J**	0.0627 U
Calcium	mg/kg	-	-	-	-	-	-	-	-	na	**12400 J**	**21800**	**2650**	**17000**	**32500**	**179000**	**132000**	**12900**	**12300**
Chromium	mg/kg	30		36	180	1500	6800	41	-	na	**31.4**	**19.1**	**486**	**21**	**11.9**	**22.6**	**35**	**24**	**25.3**
Cobalt	mg/kg	-	-	-	-	-	-	-	-	na	**17.9**	**11.9**	**10.1**	**13.7**	**7.62**	**4.23**	**6.85**	**16.3**	**17.8**
Copper	mg/kg	50	1720	270	270	270	10000	50	-	na	**39.8**	**33.2**	**308**	**27.3**	**23.2**	**83**	**189**	**36.1**	**37.9**
Iron	mg/kg	-	-	-	-	-	-	-	-	na	**45300**	**32700**	**46700**	**37300**	**25600**	**13000**	**18200**	**42500**	**42300**
Lead	mg/kg	63	450	400	400	1000	3900	63	-	na	**20.9**	**12.5**	**96.8**	**13.4**	**9.02**	**83.6**	**441**	**22.9**	**19.5**
Magnesium	mg/kg	-	-	-	-	-	-	-	-	na	**12800**	**11200**	**7250**	**12000**	**12700**	**15700**	**15700**	**12800**	**12100**
Manganese	mg/kg	1600	2000	2000	2000	10000	10000	1600	-	na	**842**	**682**	**523**	**743**	**518**	**391**	**320**	**827**	**858**
Mercury	mg/kg	0.18	0.73	0.81	0.81	2.8	5.7	0.18	-	na	**0.022 J**	**0.0206 J**	**0.121**	**0.0132 J**	0.0112 U	**0.162**	**0.357**	**0.0282 J**	**0.0292 J**
Nickel	mg/kg	30	130	140	310	310	10000	30	-	na	**36.9**	**27.5**	**28.1**	**27.8**	**17.8**	**13.4**	**313**	**38.6**	**36.5**
Potassium	mg/kg	-	-	-	-	-	-	-	-	na	**7350**	**3300**	**1310**	**2860**	**1520**	**921**	**1050**	**3860**	**4000**
Selenium	mg/kg	3.9	4	36	180	1500	6800	3.9	-	na	**1.85 J**	**1.29 J**	**10.1 J**	0.853 U	0.757 U	0.743 U	0.758 U	4.63 U	**6.61**
Silver	mg/kg	2	8.3	36	180	1500	6800	2	-	na	**2.81**	**1.41**	0.699 U	**1.81**	**0.352 J**	0.124 U	**0.382 J**	0.771 U	**0.711 J**
Sodium	mg/kg	-	-	-	-	-	-	-	-	na	**284**	**89.1 J**	**77.8 J**	**168 J**	**103 J**	**61.3 J**	**69.8 J**	**174 J**	**163 J**
Thallium	mg/kg	-	-	-	-	-	-	-	-	na	**4.3 J**	**3.03 J**	3.82 U	**3.39 J**	**1.77 J**	1.59 U	0.691 U	4.22 U	**3.08 J**
Vanadium	mg/kg	-	-	-	-	-	-	-	-	na	**39.9**	**23.1**	**19.9**	**21**	**12.7**	**10.9**	**18**	**28.7**	**26.5**
Zinc	mg/kg	109	2480	2200	10000	10000	10000	109	-	na	**108**	**73.1**	**177**	**82.9**	**56.6**	**150**	**221**	**119**	**107**
Total Cyanide by USEPA Method 9010																			
Total Cyanide (water)	mg/kg	27	40	27	27	27	10000	-	-	na	0.26 U	0.21 U	0.19 U	0.23 U	0.2 U	0.18 U	**0.48 J**	0.24 U	**0.37 J**
Polychlorined Biphenyls (PCBs) by USEPA Method 8082																			
Aroclor-1016	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	5.3 U	43 U	3.9 U	4.5 U	20 U	3.7 U	3.7 U	5 U	5 U
Aroclor-1221	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	6.7 U	55 U	5 U	5.7 U	26 U	4.7 U	4.8 U	6.4 U	6.4 U
Aroclor-1232	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	12 U	95 U	8.6 U	9.9 U	45 U	8.3 U	8.3 U	11 U	11 U
Aroclor-1242	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	4.8 U	39 U	3.6 U	4.1 U	18 U	3.4 U	3.4 U	4.6 U	4.6 U
Aroclor-1248	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	4.8 U	39 U	3.6 U	4.1 U	18 U	3.4 U	3.4 U	4.6 U	4.6 U
Aroclor-1254	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	4.8 U	39 U	3.6 U	4.1 U	18 U	3.4 U	3.4 U	4.6 U	4.6 U
Aroclor-1260	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	7.2 U	58 U	5.3 U	6.1 U	27 U	**12 J**	**17 J**	6.8 U	6.8 U
Aroclor-1262	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	4.8 U	39 U	3.6 U	4.1 U	18 U	3.4 U	3.4 U	4.6 U	4.6 U
Aroclor-1268	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	4.8 U	39 U	3.6 U	4.1 U	18 U	3.4 U	3.4 U	4.6 U	4.6 U
Pesticides by USEPA Method 8081																			
Aldrin	µg/kg	5	190	19	97	680	1400	140	-	na	0.25 U	1 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.24 U
Alpha BHC	µg/kg	20	20	97	480	3400	6800	40	-	na	0.25 U	1 U	0.39 U	0.21 U	**0.23 J**	0.18 U	0.18 U	**0.39 J**	0.24 U
Alpha Chlordane	µg/kg	94	2900	910	4200	24000	47000	1300	-	na	0.25 U	1 U	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.24 U
Beta BHC	µg/kg	36	90	72	360	3000	14000	600	-	na	0.44 U	1.8 U	0.32 U	0.37 U	0.41 U	0.31 U	0.31 U	0.41 U	0.42 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-001	JS-B-001	JS-B-001	JS-B-002	JS-B-002	JS-B-002	JS-B-003	JS-B-003	JS-B-003	JS-B-003
									Sample Date:	08/16/2016	08/16/2016	08/16/2016	08/11/2016	08/11/2016	08/12/2016	07/21/2016	07/21/2016	08/08/2016	08/08/2016
									Sample Depth:	18 - 19 ft	18 - 20 ft	60 - 64 ft	6 - 8 ft	9 - 10 ft	60 - 64 ft	0 - 2 in	2 - 12 in	9 - 11 ft	15 - 17 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value										
Delta BHC	µg/kg	40	250	100000	100000	500000	1000000	40	-	na	0.66 U	2.6 U	0.48 U	0.56 U	0.5 U	0.47 U	0.47 U	0.62 U	0.63 U
Dieldrin	µg/kg	5	100	39	200	1400	2800	6	-	na	0.48 U	1.9 U	0.36 U	0.41 U	0.36 U	0.34 U	0.34 U	0.46 U	0.46 U
Endosulfan I	µg/kg	2400	102000	4800	24000	200000	920000	-	-	na	**0.48 J**	1.3 U	0.24 U	0.27 U	0.24 U	0.25 U	0.23 U	0.3 U	0.31 U
Endosulfan II	µg/kg	2400	102000	4800	24000	200000	920000	-	-	na	0.48 U	1.9 U	0.36 U	0.41 U	0.36 U	**0.45 J**	**0.66 J**	0.46 U	0.46 U
Endosulfan Sulfate	µg/kg	2400	1000000	4800	24000	200000	920000	-	-	na	0.48 U	**6.9 J**	**0.6 J**	0.41 U	0.36 U	**0.46 J**	0.78 U	0.46 U	0.46 U
Endrin	µg/kg	14	60	2200	11000	89000	410000	14	-	na	0.48 U	4.2 U	**0.78 J**	0.41 U	**0.48 J**	0.5 U	0.37 U	0.46 U	0.46 U
Endrin Aldehyde	µg/kg	-	-	-	-	-	-	-	-	na	0.48 U	**6.4 J**	0.36 U	0.41 U	0.36 U	**0.46 J**	0.42 U	0.46 U	0.46 U
Endrin Ketone	µg/kg	-	-	-	-	-	-	-	-	na	0.88 U	3.5 U	0.65 U	0.75 U	0.66 U	0.62 U	**1.4 J**	0.83 U	0.84 U
Gamma Chlordane	µg/kg	-	-	-	-	-	-	-	-	na	0.25 U	1 U	0.54 U	0.21 U	0.19 U	0.18 U	0.56 U	0.23 U	0.24 U
gamma-BHC (Lindane)	µg/kg	100	100	280	1300	9200	23000	6000	-	na	**0.37 J**	**2 J**	0.27 U	0.21 U	0.19 U	0.18 U	0.18 U	0.23 U	0.24 U
Heptachlor	µg/kg	42	380	420	2100	15000	29000	140	-	na	0.25 U	1 U	0.18 U	0.21 U	**0.34 J**	0.18 U	0.18 U	0.23 U	0.24 U
Heptachlor Epoxide	µg/kg	-	-	-	-	-	-	-	-	na	0.25 U	1 U	0.18 U	0.21 U	**0.9 J**	0.18 U	0.18 U	0.23 U	0.24 U
Methoxychlor	µg/kg	-	-	-	-	-	-	-	-	na	2.5 U	10 U	1.8 U	2.1 U	1.9 U	1.8 U	1.8 U	2.3 U	2.4 U
p,p-DDD	µg/kg	3.3	14000	2600	13000	92000	180000	3.3	-	na	0.48 U	1.9 U	0.36 U	0.41 U	0.36 U	1 U	**0.69 J**	0.46 U	0.46 U
p,p-DDE	µg/kg	3.3	17000	1800	8900	62000	120000	3.3	-	na	**0.6 J**	1.9 U	0.36 U	0.41 U	0.36 U	0.34 U	0.34 U	0.46 U	0.46 U
p,p-DDT	µg/kg	3.3	136000	1700	7900	47000	94000	3.3	-	na	0.51 U	2.1 U	**0.61 J**	0.44 U	0.39 U	**1.6 J**	**2 J**	0.48 U	0.49 U
Toxaphene	µg/kg								-	na	20 U	82 U	15 U	17 U	15 U	15 U	15 U	19 U	20 U
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270																			
1,1'-Biphenyl	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
1,2,4,5-Tetrachlorobenzene	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
1,4-Dioxane	µg/kg	100	100	9800	13000	130000	250000	100	-	na	150 U	120 U	110 U	120 U	110 U	1000 U	1100 U	140 U	140 U
2,2'-oxybis(1-Chloropropane)	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2,3,4,6-Tetrachlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
2,4,5-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2,4,6-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2,4-Dichlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2,4-Dimethylphenol	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2,4-Dinitrophenol	µg/kg	-	-	-	-	-	-	-	-	na	440 U	360 U	320 U	370 U	330 U	3100 U	3200 U	410 U	420 U
2,4-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
2,6-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2-Chloronaphthalene	µg/kg	-	-	-	-	-	-	-	-	na	10 U	8 U	7 U	8 U	7 U	69 U	70 U	9 U	9 U
2-Chlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2-Methylnaphthalene	µg/kg	-	-	-	-	-	-	-	-	na	5 U	4 U	**140**	**12 J**	4 U	34 U	**41 J**	5 U	5 U
2-Methylphenol	µg/kg	330	330	100000	100000	500000	1000000	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
2-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
3,3'-Dichlorobenzidine	µg/kg	-	-	-	-	-	-	-	-	na	150 U	120 U	110 U	120 U	110 U	1000 U	1100 U	140 U	140 U
3-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
4,6-Dinitro-2-methylphenol	µg/kg	-	-	-	-	-	-	-	-	na	250 U	200 U	180 U	210 U	180 U	1700 U	1800 U	230 U	230 U
4-Bromophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
4-Chloro-3-methylphenol	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
4-Chloroaniline	µg/kg	-	-	-	-	-	-	-	-	na	49 U	40 U	36 U	41 U	37 U	340 U	350 U	46 U	47 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-001	JS-B-001	JS-B-001	JS-B-002	JS-B-002	JS-B-002	JS-B-003	JS-B-003	JS-B-003	JS-B-003
									Sample Date:	08/16/2016	08/16/2016	08/16/2016	08/11/2016	08/11/2016	08/12/2016	07/21/2016	07/21/2016	08/08/2016	08/08/2016
									Sample Depth:	18 - 19 ft	18 - 20 ft	60 - 64 ft	6 - 8 ft	9 - 10 ft	60 - 64 ft	0 - 2 in	2 - 12 in	9 - 11 ft	15 - 17 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
4-Chlorophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
4-Methylphenol	µg/kg	330	330	34000	100000	500000	1000000		-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
4-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
4-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	na	250 U	200 U	180 U	210 U	180 U	1700 U	1800 U	230 U	230 U
Acenaphthene	µg/kg	20000	98000	100000	100000	500000	1000000	20000	-	na	5 U	4 U	**8 J**	4 U	4 U	34 U	35 U	5 U	5 U
Acenaphthylene	µg/kg	100000	107000	100000	100000	500000	1000000	-	-	na	5 U	4 U	**18 J**	4 U	4 U	**48 J**	**73 J**	5 U	5 U
Acetophenone	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
Anthracene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	5 U	4 U	**43**	4 U	4 U	**45 J**	**78 J**	5 U	5 U
Atrazine	µg/kg	-	-	-	-	-	-	-	-	na	49 U	40 U	36 U	41 U	37 U	340 U	350 U	46 U	47 U
Benzaldehyde	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
Benzo(a)anthracene	µg/kg	1000	1000	1000	1000	5600	11000	-	-	na	5 U	4 U	**140**	4 U	4 U	**170 J**	**480**	5 U	5 U
Benzo(a)pyrene	µg/kg	1000	22000	1000	1000	1000	1100	2600	-	na	5 U	4 U	**140**	4 U	4 U	**190**	**650**	5 U	5 U
Benzo(b)fluoranthene	µg/kg	1000	1700	1000	1000	5600	11000	-	-	na	5 U	4 U	**190**	4 U	4 U	**300**	**830**	5 U	5 U
Benzo(g,h,i)perylene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	5 U	4 U	**98**	4 U	4 U	**190**	**550**	5 U	5 U
Benzo(k)fluoranthene	µg/kg	800	1700	1000	3900	56000	110000	-	-	na	5 U	4 U	**82**	4 U	4 U	**98 J**	**420**	5 U	5 U
bis(2-Chloroethoxy)methane	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
bis(2-Chloroethyl)ether	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
bis(2-Ethylhexyl)phthalate	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
Butylbenzylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
Caprolactam	µg/kg	-	-	-	-	-	-	-	-	na	49 U	40 U	36 U	41 U	37 U	340 U	350 U	46 U	47 U
Carbazole	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
Chrysene	µg/kg	1000	1000	1000	3900	56000	110000	-	-	na	5 U	4 U	**140**	4 U	4 U	**200**	**480**	5 U	5 U
Dibenz(a,h)anthracene	µg/kg	330	1000000	330	330	560	1100	-	-	na	5 U	4 U	**28**	4 U	4 U	**44 J**	**99 J**	5 U	5 U
Dibenzofuran	µg/kg	7000	210000	14000	59000	350000	1000000	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
Diethylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
Dimethylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
Di-n-butylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
Di-n-octylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	98 U	79 U	72 U	83 U	74 U	690 U	700 U	92 U	93 U
Fluoranthene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	5 U	4 U	**290**	4 U	4 U	**290**	**960**	5 U	5 U
Fluorene	µg/kg	30000	386000	100000	100000	500000	1000000	30000	-	na	5 U	4 U	**15 J**	4 U	4 U	34 U	35 U	5 U	5 U
Hexachlorobenzene	µg/kg	330	3200	330	1200	6000	12000	-	-	na	5 U	4 U	4 U	4 U	4 U	34 U	35 U	5 U	5 U
Hexachlorobutadiene	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
Hexachlorocyclopentadiene	µg/kg	-	-	-	-	-	-	-	-	na	250 U	200 U	180 U	210 U	180 U	1700 U	1800 U	230 U	230 U
Hexachloroethane	µg/kg	-	-	-	-	-	-	-	-	na	49 U	40 U	36 U	41 U	37 U	340 U	350 U	46 U	47 U
Indeno(1,2,3-cd)pyrene	µg/kg	500	8200	500	500	5600	11000	-	-	na	5 U	4 U	**92**	4 U	4 U	**150 J**	**380**	5 U	5 U
Isophorone	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
Naphthalene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	na	**6 J**	**81**	**860**	**66**	**5600**	**76 J**	**330**	5 U	**130**
Nitrobenzene	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
N-Nitroso-di-n-propylamine	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
N-Nitrosodiphenylamine	µg/kg	-	-	-	-	-	-	-	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
Pentachlorophenol	µg/kg	800	800	2400	6700	6700	55000	800	-	na	49 U	40 U	36 U	41 U	37 U	340 U	350 U	46 U	47 U
Phenanthrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	5 U	4 U	**190**	4 U	4 U	**160 J**	**300**	5 U	5 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value	JS-B-001	JS-B-001	JS-B-001	JS-B-002	JS-B-002	JS-B-002	JS-B-003	JS-B-003	JS-B-003	JS-B-003
									Sample Date:	08/16/2016	08/16/2016	08/16/2016	08/11/2016	08/11/2016	08/12/2016	07/21/2016	07/21/2016	08/08/2016	08/08/2016
									Sample Depth:	18 - 19 ft	18 - 20 ft	60 - 64 ft	6 - 8 ft	9 - 10 ft	60 - 64 ft	0 - 2 in	2 - 12 in	9 - 11 ft	15 - 17 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Phenol	µg/kg	330	330	100000	100000	500000	1000000	30000	-	na	25 U	20 U	18 U	21 U	18 U	170 U	180 U	23 U	23 U
Pyrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	5 U	4 U	**250**	4 U	4 U	**290**	**920**	5 U	5 U
Volatile Organic Compounds (VOCs) by USEPA Method 8260																			
1,1,1-Trichloroethane	µg/kg	680	680	100000	100000	500000	1000000	-	-	**480**	na	**9700**	**3 J**	1 U	**2500**	**1 J**	**1 J**	1 U	510 U
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,1,2-Trichloroethane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,1-Dichloroethane	µg/kg	270	270	19000	26000	240000	480000	-	-	**1400**	na	**1300**	1 U	**5 J**	**56 J**	0.9 U	0.9 U	**27**	510 U
1,1-Dichloroethene	µg/kg	330	330	100000	100000	500000	1000000	-	-	**310 J**	na	**420 J**	**1 J**	**7**	**81 J**	0.9 U	0.9 U	**15**	510 U
1,2,3-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,2,4-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,2,4-Trimethylbenzene	µg/kg	3600	3600	47000	52000	190000	380000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,2-Dibromo-3-chloropropane	µg/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
1,2-Dibromoethane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,2-Dichlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,2-Dichloroethane	µg/kg	20	20	2300	3100	30000	60000	10000	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,2-Dichloropropane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,3,5-Trimethylbenzene	µg/kg	8400	8400	47000	52000	190000	380000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,3-Dichlorobenzene	µg/kg	2400	2400	17000	49000	280000	560000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
1,4-Dichlorobenzene	µg/kg	1800	1800	9800	13000	130000	250000	20000	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
2-Butanone	µg/kg	120	120	100000	100000	500000	1000000	100000	-	260 U	na	430 U	4 U	5 U	200 U	4 U	4 U	4 U	2100 U
2-Hexanone	µg/kg	-	-	-	-	-	-	-	-	190 U	na	320 U	3 U	4 U	150 U	3 U	3 U	3 U	1500 U
4-Methyl-2-pentanone	µg/kg	-	-	-	-	-	-	-	-	190 U	na	320 U	3 U	4 U	150 U	3 U	3 U	3 U	1500 U
Acetone	µg/kg	50	50	100000	100000	500000	1000000	2200	-	**780 J**	na	750 U	**24**	**9 J**	340 U	**27**	**19**	8 U	3600 U
Benzene	µg/kg	60	60	2900	4800	44000	89000	70000	-	32 U	na	53 U	0.5 U	0.6 U	24 U	0.4 U	0.4 U	0.5 U	260 U
Bromochloromethane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Bromodichloromethane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Bromoform	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Bromomethane	µg/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
Carbon Disulfide	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	**7**	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Carbon Tetrachloride	µg/kg	760	760	1400	2400	22000	44000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Chlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	40000	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Chloroethane	µg/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
Chloroform	µg/kg	370	370	10000	49000	350000	700000	12000	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Chloromethane	µg/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
cis-1,2-Dichloroethene	µg/kg	250	250	59000	100000	500000	1000000	-	-	**150 J**	na	110 U	**13**	**180**	49 U	0.9 U	0.9 U	1 U	510 U
cis-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Cyclohexane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Dibromochloromethane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Dichlorodifluoromethane	µg/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
Ethylbenzene	µg/kg	1000	1000	30000	41000	390000	780000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Freon 113	µg/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
Isopropylbenzene (Cumene)	ug/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-001	JS-B-001	JS-B-001	JS-B-002	JS-B-002	JS-B-002	JS-B-003	JS-B-003	JS-B-003	JS-B-003
									Sample Date:	08/16/2016	08/16/2016	08/16/2016	08/11/2016	08/11/2016	08/12/2016	07/21/2016	07/21/2016	08/08/2016	08/08/2016
									Sample Depth:	18 - 19 ft	18 - 20 ft	60 - 64 ft	6 - 8 ft	9 - 10 ft	60 - 64 ft	0 - 2 in	2 - 12 in	9 - 11 ft	15 - 17 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
m+p-Xylene	ug/kg	260	1600	100000	100000	500000	1000000	260	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Methyl Acetate	ug/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
ry Butyl Ether (MTBE)	ug/kg	930	930	62000	100000	500000	1000000		-	32 U	na	53 U	0.5 U	0.6 U	24 U	0.4 U	0.4 U	0.5 U	260 U
Methylcyclohexane	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Methylene Chloride	µg/kg	50	50	51000	100000	500000	1000000	12000	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
n-Butylbenzene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
n-Propylbenzene	µg/kg	3900	3900	100000	100000	500000	1000000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
o-Xylene	µg/kg	260	1600	100000	100000	500000	1000000	260	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
p-Isopropyltoluene	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
sec-Butylbenzene	µg/kg	11000	11000	100000	100000	500000	1000000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Styrene	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
tert-Butylbenzene	µg/kg	5900	5900	100000	100000	500000	1000000	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Tetrachloroethene	µg/kg	1300	1300	5500	19000	150000	300000	2000	-	65 U	na	110 U	**2 J**	**2 J**	49 U	**2 J**	**3 J**	1 U	510 U
Toluene	µg/kg	700	700	100000	100000	500000	1000000	36000	-	**170 J**	na	**290 J**	**2 J**	1 U	49 U	0.9 U	0.9 U	1 U	510 U
trans-1,2-Dichloroethene	µg/kg	190	190	100000	100000	500000	1000000	-	-	65 U	na	110 U	**2 J**	**2 J**	**52 J**	0.9 U	0.9 U	1 U	510 U
trans-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U
Trichloroethene	µg/kg	470	470	10000	21000	200000	400000	2000	-	**50000**	na	**46000**	**130**	**180 J**	**12000**	**22**	**50 J**	**300**	**420000**
Trichlorofluoromethane	µg/kg	-	-	-	-	-	-	-	-	130 U	na	210 U	2 U	2 U	98 U	2 U	2 U	2 U	1000 U
Vinyl Chloride	µg/kg	20	20	210	900	13000	27000	-	-	65 U	na	110 U	1 U	**33**	49 U	0.9 U	0.9 U	1 U	510 U
Xylene (Total)	µg/kg	260	1600	100000	100000	500000	1000000	260	-	65 U	na	110 U	1 U	1 U	49 U	0.9 U	0.9 U	1 U	510 U

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter

NYS Unrestricted Use SCO
NYS Protection of Groundwater SCO
NYS Residential Use SCO
NYS Restricted Residential SCO
NYS Commercial Use SCO
NYS Industrial Use SCO
NYS Protection of Ecological Resources SCO

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-003	JS-B-003	JS-B-004	JS-B-004	JS-B-004	JS-B-004	JS-B-005	JS-B-005	JS-B-005	JS-B-006
									Sample Date:	08/11/2016	08/11/2016	07/21/2016	07/21/2016	08/17/2016	08/17/2016	07/21/2016	07/21/2016	08/23/2016	11/29/2016
									Sample Depth:	85 - 87 ft	86 - 87 ft	0 - 2 in	2 - 12 in	10 - 11 ft	10 - 12 ft	0 - 2 in	2 - 12 in	11 - 12 ft	18 - 19 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value										
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)																			
Aluminum	mg/kg	-	-	-	-	-	-	-	-	**10300**	na	**8260**	**8340**	na	**26300**	**9560**	**10900**	**28400**	na
Antimony	mg/kg	-	-	-	-	-	-	-	-	**1.13 J**	na	1.01 U	0.61 U	na	**2.31 J**	2.35 U	0.598 U	**2.44 J**	na
Arsenic	mg/kg	13	16	16	16	16	16	13	-	**3.96**	na	**6.94**	**5.45**	na	**10.3 J**	**11.1**	**6.64**	**12.7**	na
Barium	mg/kg	350	820	350	400	400	10000	433	-	**45.7**	na	**56.9**	**60.1**	na	**204**	**116**	**78.1**	**230**	na
Beryllium	mg/kg	7.2	47	14	72	590	2700	10	-	**0.53 J**	na	**0.333 J**	**0.343 J**	na	**1.1 J**	**0.359 J**	**0.432 J**	**1.21 J**	na
Cadmium	mg/kg	2.5	7.5	2.5	4.3	9.3	60	4	-	0.0404 U	na	**0.423 J**	**0.298 J**	na	**0.241 J**	**0.849 J**	**0.444 J**	0.0726 U	na
Calcium	mg/kg	-	-	-	-	-	-	-	-	**37200**	na	**36700**	**12000**	na	**18000**	**54200**	**13500**	**12500**	na
Chromium	mg/kg	30		36	180	1500	6800	41	-	**13.7**	na	**11.9**	**10.5**	na	**26.7**	**26.9**	**14.7**	**30.1**	na
Cobalt	mg/kg	-	-	-	-	-	-	-	-	**7.25**	na	**6.71**	**6.89**	na	**16.6**	**8.68**	**7.91**	**19**	na
Copper	mg/kg	50	1720	270	270	270	10000	50	-	**25**	na	**57.2**	**46.2**	na	**34.9**	**734**	**82.3**	**40.6**	na
Iron	mg/kg	-	-	-	-	-	-	-	-	**25900**	na	**20500**	**19400**	na	**45000**	**20700**	**23800**	**48200**	na
Lead	mg/kg	63	450	400	400	1000	3900	63	-	**11.3**	na	**52.2**	**52.7**	na	**23.6**	**145**	**111**	**25**	na
Magnesium	mg/kg	-	-	-	-	-	-	-	-	**9400**	na	**10100**	**5530**	na	**15200**	**4750**	**6250**	**14100**	na
Manganese	mg/kg	1600	2000	2000	2000	10000	10000	1600	-	**589**	na	**502**	**421**	na	**835**	**695**	**504**	**975**	na
Mercury	mg/kg	0.18	0.73	0.81	0.81	2.8	5.7	0.18	-	**0.018 J**	na	**0.0407 J**	**0.0782 J**	na	0.0137 U	**0.0978 J**	**0.071 J**	**0.0323 J**	na
Nickel	mg/kg	30	130	140	310	310	10000	30	-	**16.9**	na	**17.3**	**15.1**	na	**37.5**	**27.3**	**21.3**	**38.9**	na
Potassium	mg/kg	-	-	-	-	-	-	-	-	**1560**	na	**1210**	**1110**	na	**5260**	**972**	**1210**	**5580 J**	na
Selenium	mg/kg	3.9	4	36	180	1500	6800	3.9	-	0.741 U	na	0.833 U	0.647 U	na	4.34 U	0.803 U	0.769 U	1.33 U	na
Silver	mg/kg	2	8.3	36	180	1500	6800	2	-	**0.39 J**	na	0.139 U	0.108 U	na	0.723 U	**0.428 J**	0.128 U	**2.53**	na
Sodium	mg/kg	-	-	-	-	-	-	-	-	**84.6 J**	na	**56.4 J**	**52.9 J**	na	**244**	**41.8 J**	**50.7 J**	**219 J**	na
Thallium	mg/kg	-	-	-	-	-	-	-	-	**2 J**	na	0.759 U	0.589 U	na	3.95 U	0.732 U	0.701 U	**4.73 J**	na
Vanadium	mg/kg	-	-	-	-	-	-	-	-	**11.8**	na	**18.2**	**14.1**	na	**34.6**	**18.5**	**17.4**	**34.7**	na
Zinc	mg/kg	109	2480	2200	10000	10000	10000	109	-	**64.1**	na	**88.2**	**80.6**	na	**114**	**479**	**126**	**116**	na
Total Cyanide by USEPA Method 9010																			
Total Cyanide (water)	mg/kg	27	40	27	27	27	10000	-	-	0.19 U	na	0.19 U	0.19 U	na	0.25 U	**0.22 J**	0.18 U	0.26 U	na
Polychlorined Biphenyls (PCBs) by USEPA Method 8082																			
Aroclor-1016	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.9 U	na	3.9 U	3.8 U	na	5 U	3.7 U	3.7 U	5.4 U	na
Aroclor-1221	µg/kg	100	3200	1000	1000	1000	25000	1000	-	4.9 U	na	5 U	4.9 U	na	6.3 U	4.8 U	4.7 U	6.9 U	na
Aroclor-1232	µg/kg	100	3200	1000	1000	1000	25000	1000	-	8.6 U	na	8.6 U	8.5 U	na	11 U	8.3 U	8.2 U	12 U	na
Aroclor-1242	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.5 U	na	3.6 U	3.5 U	na	4.5 U	3.4 U	3.4 U	4.9 U	na
Aroclor-1248	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.5 U	na	3.6 U	3.5 U	na	4.5 U	3.4 U	3.4 U	4.9 U	na
Aroclor-1254	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.5 U	na	3.6 U	3.5 U	na	4.5 U	**30**	**7.4 J**	4.9 U	na
Aroclor-1260	µg/kg	100	3200	1000	1000	1000	25000	1000	-	5.3 U	na	**11 J**	5.2 U	na	6.8 U	**16 J**	5 U	7.3 U	na
Aroclor-1262	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.5 U	na	3.6 U	3.5 U	na	4.5 U	3.4 U	3.4 U	4.9 U	na
Aroclor-1268	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.5 U	na	3.6 U	3.5 U	na	4.5 U	3.4 U	3.4 U	4.9 U	na
Pesticides by USEPA Method 8081																			
Aldrin	µg/kg	5	190	19	97	680	1400	140	-	0.18 U	na	0.18 U	1.4 U	na	0.24 UJ	**0.19 J**	0.18 U	0.26 U	na
Alpha BHC	µg/kg	20	20	97	480	3400	6800	40	-	0.18 U	na	0.18 U	0.91 U	na	0.24 UJ	0.18 U	0.18 U	1 U	na
Alpha Chlordane	µg/kg	94	2900	910	4200	24000	47000	1300	-	0.18 U	na	**0.28 J**	**3.9 J**	na	0.24 UJ	0.2 U	0.18 U	0.26 U	na
Beta BHC	µg/kg	36	90	72	360	3000	14000	600	-	0.32 U	na	0.32 U	1.6 U	na	0.41 UJ	0.31 U	0.31 U	0.45 U	na

Table 12
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Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-003	JS-B-003	JS-B-004	JS-B-004	JS-B-004	JS-B-004	JS-B-005	JS-B-005	JS-B-005	JS-B-006
									Sample Date:	08/11/2016	08/11/2016	07/21/2016	07/21/2016	08/17/2016	08/17/2016	07/21/2016	07/21/2016	08/23/2016	11/29/2016
									Sample Depth:	85 - 87 ft	86 - 87 ft	0 - 2 in	2 - 12 in	10 - 11 ft	10 - 12 ft	0 - 2 in	2 - 12 in	11 - 12 ft	18 - 19 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
Delta BHC	µg/kg	40	250	100000	100000	500000	1000000	40	-	0.48 U	na	0.49 U	2.4 U	na	0.62 UJ	0.47 U	0.47 U	R	na
Dieldrin	µg/kg	5	100	39	200	1400	2800	6	-	0.36 U	na	0.36 U	1.8 U	na	0.46 UJ	0.34 U	0.34 U	0.5 U	na
Endosulfan I	µg/kg	2400	102000	4800	24000	200000	920000	-	-	0.24 U	na	0.24 U	1.2 U	na	0.3 UJ	0.23 U	0.23 U	0.33 U	na
Endosulfan II	µg/kg	2400	102000	4800	24000	200000	920000	-	-	0.36 U	na	0.36 U	2.5 U	na	0.46 UJ	**0.99 J**	0.34 U	0.5 U	na
Endosulfan Sulfate	µg/kg	2400	1000000	4800	24000	200000	920000	-	-	0.36 U	na	**1.2 J**	22 U	na	0.46 UJ	**5.5 J**	**18 J**	0.5 U	na
Endrin	µg/kg	14	60	2200	11000	89000	410000	14	-	**0.38 J**	na	0.36 U	**3.6 J**	na	0.46 UJ	**0.37 J**	**0.39 J**	0.5 U	na
Endrin Aldehyde	µg/kg	-	-	-	-	-	-	-	-	0.36 U	na	**0.36 J**	1.8 U	na	0.46 UJ	0.34 U	0.34 U	0.5 U	na
Endrin Ketone	µg/kg	-	-	-	-	-	-	-	-	0.65 U	na	0.65 U	3.2 U	na	0.83 UJ	0.62 U	**1.3 J**	0.9 U	na
Gamma Chlordane	µg/kg	-	-	-	-	-	-	-	-	0.18 U	na	0.18 U	0.91 U	na	0.24 UJ	0.18 U	0.18 U	0.26 U	na
gamma-BHC (Lindane)	µg/kg	100	100	280	1300	9200	23000	6000	-	0.18 U	na	0.18 U	0.91 U	na	0.24 UJ	0.18 U	0.18 U	0.26 U	na
Heptachlor	µg/kg	42	380	420	2100	15000	29000	140	-	0.18 U	na	0.18 U	**1.6 J**	na	0.24 UJ	0.18 U	**0.19 J**	0.26 U	na
Heptachlor Epoxide	µg/kg	-	-	-	-	-	-	-	-	0.18 U	na	0.18 U	**1.2 J**	na	0.24 UJ	**0.32 J**	0.18 U	0.26 U	na
Methoxychlor	µg/kg	-	-	-	-	-	-	-	-	1.8 U	na	1.8 U	50 U	na	2.4 UJ	1.8 U	1.8 U	2.6 U	na
p,p-DDD	µg/kg	3.3	14000	2600	13000	92000	180000	3.3	-	**1.5 J**	na	**0.41 J**	**11**	na	0.46 UJ	0.34 U	0.34 U	0.5 U	na
p,p-DDE	µg/kg	3.3	17000	1800	8900	62000	120000	3.3	-	**0.83 J**	na	0.44 U	1.8 U	na	0.46 UJ	**0.9 J**	0.34 U	0.5 U	na
p,p-DDT	µg/kg	3.3	136000	1700	7900	47000	94000	3.3	-	0.38 U	na	**1.8 J**	5.2 U	na	0.48 UJ	**5**	**1.4 J**	0.53 U	na
Toxaphene	µg/kg								-	15 U	na	15 U	75 U	na	19 UJ	15 U	15 U	21 U	na
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270																			
1,1'-Biphenyl	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
1,2,4,5-Tetrachlorobenzene	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
1,4-Dioxane	µg/kg	100	100	9800	13000	130000	250000	100	-	110 U	na	1100 U	1100 U	na	140 UJ	1000 U	520 U	150 U	na
2,2'-oxybis(1-Chloropropane)	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
2,3,4,6-Tetrachlorophenol	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 UJ	na
2,4,5-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 UJ	na
2,4,6-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 UJ	na
2,4-Dichlorophenol	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
2,4-Dimethylphenol	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 UJ	na
2,4-Dinitrophenol	µg/kg	-	-	-	-	-	-	-	-	320 U	na	3300 U	3200 U	na	420 UJ	3100 U	1600 U	450 U	na
2,4-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
2,6-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
2-Chloronaphthalene	µg/kg	-	-	-	-	-	-	-	-	7 U	na	73 U	71 U	na	9 UJ	69 U	35 U	10 U	na
2-Chlorophenol	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
2-Methylnaphthalene	µg/kg	-	-	-	-	-	-	-	-	4 U	na	36 U	**160 J**	na	**34 J**	34 U	17 U	5 U	na
2-Methylphenol	µg/kg	330	330	100000	100000	500000	1000000	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
2-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
2-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
3,3'-Dichlorobenzidine	µg/kg	-	-	-	-	-	-	-	-	110 U	na	1100 U	1100 U	na	140 UJ	1000 U	520 U	150 U	na
3-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
4,6-Dinitro-2-methylphenol	µg/kg	-	-	-	-	-	-	-	-	180 U	na	1800 U	1800 U	na	230 UJ	1700 U	860 U	250 U	na
4-Bromophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
4-Chloro-3-methylphenol	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
4-Chloroaniline	µg/kg	-	-	-	-	-	-	-	-	35 U	na	360 U	360 U	na	46 UJ	350 U	170 U	50 U	na

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									Location ID:	JS-B-003	JS-B-003	JS-B-004	JS-B-004	JS-B-004	JS-B-004	JS-B-005	JS-B-005	JS-B-005	JS-B-006
									Sample Date:	08/11/2016	08/11/2016	07/21/2016	07/21/2016	08/17/2016	08/17/2016	07/21/2016	07/21/2016	08/23/2016	11/29/2016
									Sample Depth:	85 - 87 ft	86 - 87 ft	0 - 2 in	2 - 12 in	10 - 11 ft	10 - 12 ft	0 - 2 in	2 - 12 in	11 - 12 ft	18 - 19 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
4-Chlorophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
4-Methylphenol	µg/kg	330	330	34000	100000	500000	1000000		-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
4-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
4-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	180 U	na	1800 U	1800 U	na	230 UJ	1700 U	860 U	250 UJ	na
Acenaphthene	µg/kg	20000	98000	100000	100000	500000	1000000	20000	-	4 U	na	36 U	**710**	na	**7 J**	34 U	17 U	5 U	na
Acenaphthylene	µg/kg	100000	107000	100000	100000	500000	1000000	-	-	4 U	na	36 U	**79 J**	na	**5 J**	34 U	**21 J**	5 U	na
Acetophenone	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
Anthracene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	4 U	na	**76 J**	**2600**	na	5 UJ	**47 J**	**48 J**	5 U	na
Atrazine	µg/kg	-	-	-	-	-	-	-	-	35 U	na	360 U	360 U	na	46 UJ	350 U	170 U	50 U	na
Benzaldehyde	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
Benzo(a)anthracene	µg/kg	1000	1000	1000	1000	5600	11000	-	-	4 U	na	**300**	**7100**	na	5 UJ	**200**	**240**	5 U	na
Benzo(a)pyrene	µg/kg	1000	22000	1000	1000	1000	1100	2600	-	4 U	na	**340**	**7800**	na	**5 J**	**200**	**260**	5 U	na
Benzo(b)fluoranthene	µg/kg	1000	1700	1000	1000	5600	11000	-	-	4 U	na	**470**	**9500**	na	**6 J**	**250**	**320**	5 U	na
Benzo(g,h,i)perylene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	4 U	na	**320**	**6000**	na	5 UJ	**160 J**	**210**	5 U	na
Benzo(k)fluoranthene	µg/kg	800	1700	1000	3900	56000	110000	-	-	4 U	na	**190**	**4100**	na	5 UJ	**110 J**	**160**	5 U	na
bis(2-Chloroethoxy)methane	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
bis(2-Chloroethyl)ether	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
bis(2-Ethylhexyl)phthalate	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
Butylbenzylphthalate	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
Caprolactam	µg/kg	-	-	-	-	-	-	-	-	35 U	na	360 U	360 U	na	46 UJ	350 U	170 U	50 U	na
Carbazole	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	**880**	na	23 UJ	170 U	86 U	25 U	na
Chrysene	µg/kg	1000	1000	1000	3900	56000	110000	-	-	4 U	na	**310**	**6600**	na	**6 J**	**180**	**240**	5 U	na
Dibenz(a,h)anthracene	µg/kg	330	1000000	330	330	560	1100	-	-	4 U	na	**74 J**	**1300**	na	5 UJ	**45 J**	**47 J**	5 U	na
Dibenzofuran	µg/kg	7000	210000	14000	59000	350000	1000000	-	-	18 U	na	180 U	**460**	na	23 UJ	170 U	86 U	25 U	na
Diethylphthalate	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
Dimethylphthalate	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
Di-n-butylphthalate	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
Di-n-octylphthalate	µg/kg	-	-	-	-	-	-	-	-	71 U	na	730 U	710 U	na	93 UJ	690 U	350 U	100 U	na
Fluoranthene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	4 U	na	**540**	**14000**	na	**12 J**	**340**	**410**	5 U	na
Fluorene	µg/kg	30000	386000	100000	100000	500000	1000000	30000	-	4 U	na	36 U	**790**	na	**10 J**	34 U	17 U	5 U	na
Hexachlorobenzene	µg/kg	330	3200	330	1200	6000	12000	-	-	4 U	na	36 U	36 U	na	5 UJ	34 U	17 U	5 U	na
Hexachlorobutadiene	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
Hexachlorocyclopentadiene	µg/kg	-	-	-	-	-	-	-	-	180 U	na	1800 U	1800 U	na	230 UJ	1700 U	860 U	250 U	na
Hexachloroethane	µg/kg	-	-	-	-	-	-	-	-	35 U	na	360 U	360 U	na	46 UJ	350 U	170 U	50 U	na
Indeno(1,2,3-cd)pyrene	µg/kg	500	8200	500	500	5600	11000	-	-	4 U	na	**270**	**5100**	na	5 UJ	**130 J**	**170**	5 U	na
Isophorone	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
Naphthalene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	**16 J**	na	36 U	**340**	na	**21 J**	34 U	**23 J**	5 U	na
Nitrobenzene	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
N-Nitroso-di-n-propylamine	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
N-Nitrosodiphenylamine	µg/kg	-	-	-	-	-	-	-	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
Pentachlorophenol	µg/kg	800	800	2400	6700	6700	55000	800	-	35 U	na	360 U	360 U	na	46 UJ	350 U	170 U	50 U	na
Phenanthrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	**4 J**	na	**220**	**8200**	na	**14 J**	**160 J**	**170**	5 U	na

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-003	JS-B-003	JS-B-004	JS-B-004	JS-B-004	JS-B-004	JS-B-005	JS-B-005	JS-B-005	JS-B-006
									Sample Date:	08/11/2016	08/11/2016	07/21/2016	07/21/2016	08/17/2016	08/17/2016	07/21/2016	07/21/2016	08/23/2016	11/29/2016
									Sample Depth:	85 - 87 ft	86 - 87 ft	0 - 2 in	2 - 12 in	10 - 11 ft	10 - 12 ft	0 - 2 in	2 - 12 in	11 - 12 ft	18 - 19 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
Phenol	µg/kg	330	330	100000	100000	500000	1000000	30000	-	18 U	na	180 U	180 U	na	23 UJ	170 U	86 U	25 U	na
Pyrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	4 U	na	**480**	**12000**	na	**13 J**	**290**	**390**	5 U	na
Volatile Organic Compounds (VOCs) by USEPA Method 8260																			
1,1,1-Trichloroethane	µg/kg	680	680	100000	100000	500000	1000000	-	-	na	**12**	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	**88000**
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,1,2-Trichloroethane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,1-Dichloroethane	µg/kg	270	270	19000	26000	240000	480000	-	-	na	**42**	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	**1400**
1,1-Dichloroethene	µg/kg	330	330	100000	100000	500000	1000000	-	-	na	**41**	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	**2500**
1,2,3-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,2,4-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,2,4-Trimethylbenzene	µg/kg	3600	3600	47000	52000	190000	380000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	**2100**
1,2-Dibromo-3-chloropropane	µg/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
1,2-Dibromoethane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,2-Dichlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,2-Dichloroethane	µg/kg	20	20	2300	3100	30000	60000	10000	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,2-Dichloropropane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,3,5-Trimethylbenzene	µg/kg	8400	8400	47000	52000	190000	380000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	**510 J**
1,3-Dichlorobenzene	µg/kg	2400	2400	17000	49000	280000	560000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
1,4-Dichlorobenzene	µg/kg	1800	1800	9800	13000	130000	250000	20000	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
2-Butanone	µg/kg	120	120	100000	100000	500000	1000000	100000	-	na	4 U	**16**	**6 J**	5 U	na	**34**	**14**	4 U	500 U
2-Hexanone	µg/kg	-	-	-	-	-	-	-	-	na	3 U	3 U	3 U	4 U	na	3 U	3 U	3 U	370 U
4-Methyl-2-pentanone	µg/kg	-	-	-	-	-	-	-	-	na	3 U	3 U	3 U	4 U	na	3 U	3 U	3 U	370 U
Acetone	µg/kg	50	50	100000	100000	500000	1000000	2200	-	na	**16 J**	**190**	**73**	13 U	na	**540**	**200**	**12 J**	870 U
Benzene	µg/kg	60	60	2900	4800	44000	89000	70000	-	na	0.4 U	0.4 U	0.4 U	0.7 U	na	**1 J**	**0.7 J**	0.5 U	62 U
Bromochloromethane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Bromodichloromethane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Bromoform	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Bromomethane	µg/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
Carbon Disulfide	µg/kg	-	-	-	-	-	-	-	-	na	**1 J**	**0.9 J**	0.8 U	1 U	na	1 U	**1 J**	1 U	120 U
Carbon Tetrachloride	µg/kg	760	760	1400	2400	22000	44000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Chlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	40000	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Chloroethane	µg/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
Chloroform	µg/kg	370	370	10000	49000	350000	700000	12000	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Chloromethane	µg/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
cis-1,2-Dichloroethene	µg/kg	250	250	59000	100000	500000	1000000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
cis-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Cyclohexane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Dibromochloromethane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Dichlorodifluoromethane	µg/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
Ethylbenzene	µg/kg	1000	1000	30000	41000	390000	780000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	**7**	**4 J**	1 U	120 U
Freon 113	µg/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
Isopropylbenzene (Cumene)	ug/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-003	JS-B-003	JS-B-004	JS-B-004	JS-B-004	JS-B-004	JS-B-005	JS-B-005	JS-B-005	JS-B-006
									Sample Date:	08/11/2016	08/11/2016	07/21/2016	07/21/2016	08/17/2016	08/17/2016	07/21/2016	07/21/2016	08/23/2016	11/29/2016
									Sample Depth:	85 - 87 ft	86 - 87 ft	0 - 2 in	2 - 12 in	10 - 11 ft	10 - 12 ft	0 - 2 in	2 - 12 in	11 - 12 ft	18 - 19 ft
									Sample Type:	N	N	N	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
m+p-Xylene	ug/kg	260	1600	100000	100000	500000	1000000	260	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Methyl Acetate	ug/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	**3 J**	2 U	2 U	250 U
ry Butyl Ether (MTBE)	ug/kg	930	930	62000	100000	500000	1000000		-	na	0.4 U	0.4 U	0.4 U	0.7 U	na	0.5 U	0.5 U	0.5 U	62 U
Methylcyclohexane	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Methylene Chloride	µg/kg	50	50	51000	100000	500000	1000000	12000	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
n-Butylbenzene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	**960**
n-Propylbenzene	µg/kg	3900	3900	100000	100000	500000	1000000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
o-Xylene	µg/kg	260	1600	100000	100000	500000	1000000	260	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
p-Isopropyltoluene	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	**2 J**	0.8 U	1 U	na	**11**	**5**	1 U	**160 J**
sec-Butylbenzene	µg/kg	11000	11000	100000	100000	500000	1000000	-	-	na	0.9 U	**0.9 J**	0.8 U	1 U	na	1 U	1 U	1 U	**150 J**
Styrene	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
tert-Butylbenzene	µg/kg	5900	5900	100000	100000	500000	1000000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Tetrachloroethene	µg/kg	1300	1300	5500	19000	150000	300000	2000	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Toluene	µg/kg	700	700	100000	100000	500000	1000000	36000	-	na	0.9 U	**1 J**	0.8 U	1 U	na	**2 J**	**1 J**	1 U	**740**
trans-1,2-Dichloroethene	µg/kg	190	190	100000	100000	500000	1000000	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
trans-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Trichloroethene	µg/kg	470	470	10000	21000	200000	400000	2000	-	na	**1500**	**46 J**	**65**	1 U	na	**3 J**	**20 J**	1 U	**54000**
Trichlorofluoromethane	µg/kg	-	-	-	-	-	-	-	-	na	2 U	2 U	2 U	3 U	na	2 U	2 U	2 U	250 U
Vinyl Chloride	µg/kg	20	20	210	900	13000	27000	-	-	na	**2 J**	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U
Xylene (Total)	µg/kg	260	1600	100000	100000	500000	1000000	260	-	na	0.9 U	0.9 U	0.8 U	1 U	na	1 U	1 U	1 U	120 U

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter

NYS Unrestricted Use SCO
NYS Protection of Groundwater SCO
NYS Residential Use SCO
NYS Restricted Residential SCO
NYS Commercial Use SCO
NYS Industrial Use SCO
NYS Protection of Ecological Resources SCO

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-007	JS-B-007	JS-B-008	JS-B-008	JS-B-008	JS-B-009	JS-B-010	JS-B-011	JS-B-012	JS-SS-001
									Sample Date:	11/30/2016	11/30/2016	12/01/2016	12/01/2016	12/01/2016	11/30/2016	11/29/2016	11/29/2016	11/30/2016	07/21/2016
									Sample Depth:	6 - 7 ft	17 - 18 ft	5 - 7 ft	5 - 7 ft	18 - 19 ft	11 - 12 ft	15 - 17 ft	15 - 17 ft	12 - 14 ft	0 - 2 in
									Sample Type:	N	N	FD	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)																			
Aluminum	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**8820**
Antimony	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	0.749 U
Arsenic	mg/kg	13	16	16	16	16	16	13	-	na	na	na	na	na	na	na	na	na	**8.13**
Barium	mg/kg	350	820	350	400	400	10000	433	-	na	na	na	na	na	na	na	na	na	**66.9**
Beryllium	mg/kg	7.2	47	14	72	590	2700	10	-	na	na	na	na	na	na	na	na	na	**0.459 J**
Cadmium	mg/kg	2.5	7.5	2.5	4.3	9.3	60	4	-	na	na	na	na	na	na	na	na	na	**0.692 J**
Calcium	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**56500**
Chromium	mg/kg	30		36	180	1500	6800	41	-	na	na	na	na	na	na	na	na	na	**20.1**
Cobalt	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**6.97**
Copper	mg/kg	50	1720	270	270	270	10000	50	-	na	na	na	na	na	na	na	na	na	**34.4**
Iron	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**26800**
Lead	mg/kg	63	450	400	400	1000	3900	63	-	na	na	na	na	na	na	na	na	na	**55.7**
Magnesium	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**9760**
Manganese	mg/kg	1600	2000	2000	2000	10000	10000	1600	-	na	na	na	na	na	na	na	na	na	**786**
Mercury	mg/kg	0.18	0.73	0.81	0.81	2.8	5.7	0.18	-	na	na	na	na	na	na	na	na	na	**0.0949 J**
Nickel	mg/kg	30	130	140	310	310	10000	30	-	na	na	na	na	na	na	na	na	na	**17.8**
Potassium	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**1290**
Selenium	mg/kg	3.9	4	36	180	1500	6800	3.9	-	na	na	na	na	na	na	na	na	na	0.847 U
Silver	mg/kg	2	8.3	36	180	1500	6800	2	-	na	na	na	na	na	na	na	na	na	0.141 U
Sodium	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**73.6 J**
Thallium	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	0.772 U
Vanadium	mg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**15.6**
Zinc	mg/kg	109	2480	2200	10000	10000	10000	109	-	na	na	na	na	na	na	na	na	na	**133**
Total Cyanide by USEPA Method 9010																			
Total Cyanide (water)	mg/kg	27	40	27	27	27	10000	-	-	na	na	na	na	na	na	na	na	na	0.18 U
Polychlorined Biphenyls (PCBs) by USEPA Method 8082																			
Aroclor-1016	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	3.7 U
Aroclor-1221	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	4.7 U
Aroclor-1232	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	8.1 U
Aroclor-1242	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	3.4 U
Aroclor-1248	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	3.4 U
Aroclor-1254	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	3.4 U
Aroclor-1260	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	**18**
Aroclor-1262	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	3.4 U
Aroclor-1268	µg/kg	100	3200	1000	1000	1000	25000	1000	-	na	na	na	na	na	na	na	na	na	3.4 U
Pesticides by USEPA Method 8081																			
Aldrin	µg/kg	5	190	19	97	680	1400	140	-	na	na	na	na	na	na	na	na	na	0.17 U
Alpha BHC	µg/kg	20	20	97	480	3400	6800	40	-	na	na	na	na	na	na	na	na	na	0.21 U
Alpha Chlordane	µg/kg	94	2900	910	4200	24000	47000	1300	-	na	na	na	na	na	na	na	na	na	0.17 U
Beta BHC	µg/kg	36	90	72	360	3000	14000	600	-	na	na	na	na	na	na	na	na	na	0.7 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-007	JS-B-007	JS-B-008	JS-B-008	JS-B-008	JS-B-009	JS-B-010	JS-B-011	JS-B-012	JS-SS-001
									Sample Date:	11/30/2016	11/30/2016	12/01/2016	12/01/2016	12/01/2016	11/30/2016	11/29/2016	11/29/2016	11/30/2016	07/21/2016
									Sample Depth:	6 - 7 ft	17 - 18 ft	5 - 7 ft	5 - 7 ft	18 - 19 ft	11 - 12 ft	15 - 17 ft	15 - 17 ft	12 - 14 ft	0 - 2 in
									Sample Type:	N	N	FD	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
Delta BHC	µg/kg	40	250	100000	100000	500000	1000000	40	-	na	na	na	na	na	na	na	na	na	0.45 U
Dieldrin	µg/kg	5	100	39	200	1400	2800	6	-	na	na	na	na	na	na	na	na	na	0.33 U
Endosulfan I	µg/kg	2400	102000	4800	24000	200000	920000	-	-	na	na	na	na	na	na	na	na	na	0.22 U
Endosulfan II	µg/kg	2400	102000	4800	24000	200000	920000	-	-	na	na	na	na	na	na	na	na	na	0.33 U
Endosulfan Sulfate	µg/kg	2400	1000000	4800	24000	200000	920000	-	-	na	na	na	na	na	na	na	na	na	**15 J**
Endrin	µg/kg	14	60	2200	11000	89000	410000	14	-	na	na	na	na	na	na	na	na	na	0.33 U
Endrin Aldehyde	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	0.33 U
Endrin Ketone	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**0.87 J**
Gamma Chlordane	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	0.17 U
gamma-BHC (Lindane)	µg/kg	100	100	280	1300	9200	23000	6000	-	na	na	na	na	na	na	na	na	na	0.17 U
Heptachlor	µg/kg	42	380	420	2100	15000	29000	140	-	na	na	na	na	na	na	na	na	na	0.17 U
Heptachlor Epoxide	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	0.17 U
Methoxychlor	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	1.7 U
p,p-DDD	µg/kg	3.3	14000	2600	13000	92000	180000	3.3	-	na	na	na	na	na	na	na	na	na	0.33 U
p,p-DDE	µg/kg	3.3	17000	1800	8900	62000	120000	3.3	-	na	na	na	na	na	na	na	na	na	0.33 U
p,p-DDT	µg/kg	3.3	136000	1700	7900	47000	94000	3.3	-	na	na	na	na	na	na	na	na	na	**1.6 J**
Toxaphene	µg/kg								-	na	na	na	na	na	na	na	na	na	14 U
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270																			
1,1'-Biphenyl	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
1,2,4,5-Tetrachlorobenzene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
1,4-Dioxane	µg/kg	100	100	9800	13000	130000	250000	100	-	na	na	na	na	na	na	na	na	na	510 U
2,2'-oxybis(1-Chloropropane)	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2,3,4,6-Tetrachlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
2,4,5-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2,4,6-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2,4-Dichlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2,4-Dimethylphenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2,4-Dinitrophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	1500 U
2,4-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
2,6-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2-Chloronaphthalene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	34 U
2-Chlorophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2-Methylnaphthalene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	**32 J**
2-Methylphenol	µg/kg	330	330	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	84 U
2-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
2-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
3,3'-Dichlorobenzidine	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	510 U
3-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
4,6-Dinitro-2-methylphenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	840 U
4-Bromophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
4-Chloro-3-methylphenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
4-Chloroaniline	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	170 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

									Location ID:	JS-B-007	JS-B-007	JS-B-008	JS-B-008	JS-B-008	JS-B-009	JS-B-010	JS-B-011	JS-B-012	JS-SS-001
									Sample Date:	11/30/2016	11/30/2016	12/01/2016	12/01/2016	12/01/2016	11/30/2016	11/29/2016	11/29/2016	11/30/2016	07/21/2016
									Sample Depth:	6 - 7 ft	17 - 18 ft	5 - 7 ft	5 - 7 ft	18 - 19 ft	11 - 12 ft	15 - 17 ft	15 - 17 ft	12 - 14 ft	0 - 2 in
									Sample Type:	N	N	FD	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
4-Chlorophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
4-Methylphenol	µg/kg	330	330	34000	100000	500000	1000000		-	na	na	na	na	na	na	na	na	na	84 U
4-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
4-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	840 U
Acenaphthene	µg/kg	20000	98000	100000	100000	500000	1000000	20000	-	na	na	na	na	na	na	na	na	na	17 U
Acenaphthylene	µg/kg	100000	107000	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	**56 J**
Acetophenone	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
Anthracene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	**46 J**
Atrazine	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	170 U
Benzaldehyde	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
Benzo(a)anthracene	µg/kg	1000	1000	1000	1000	5600	11000	-	-	na	na	na	na	na	na	na	na	na	**160**
Benzo(a)pyrene	µg/kg	1000	22000	1000	1000	1000	1100	2600	-	na	na	na	na	na	na	na	na	na	**260**
Benzo(b)fluoranthene	µg/kg	1000	1700	1000	1000	5600	11000	-	-	na	na	na	na	na	na	na	na	na	**420**
Benzo(g,h,i)perylene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	**210**
Benzo(k)fluoranthene	µg/kg	800	1700	1000	3900	56000	110000	-	-	na	na	na	na	na	na	na	na	na	**140**
bis(2-Chloroethoxy)methane	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
bis(2-Chloroethyl)ether	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
bis(2-Ethylhexyl)phthalate	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
Butylbenzylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
Caprolactam	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	170 U
Carbazole	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
Chrysene	µg/kg	1000	1000	1000	3900	56000	110000	-	-	na	na	na	na	na	na	na	na	na	**310**
Dibenz(a,h)anthracene	µg/kg	330	1000000	330	330	560	1100	-	-	na	na	na	na	na	na	na	na	na	**46 J**
Dibenzofuran	µg/kg	7000	210000	14000	59000	350000	1000000	-	-	na	na	na	na	na	na	na	na	na	84 U
Diethylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
Dimethylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
Di-n-butylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
Di-n-octylphthalate	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	340 U
Fluoranthene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	**740**
Fluorene	µg/kg	30000	386000	100000	100000	500000	1000000	30000	-	na	na	na	na	na	na	na	na	na	**31 J**
Hexachlorobenzene	µg/kg	330	3200	330	1200	6000	12000	-	-	na	na	na	na	na	na	na	na	na	17 U
Hexachlorobutadiene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
Hexachlorocyclopentadiene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	840 U
Hexachloroethane	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	170 U
Indeno(1,2,3-cd)pyrene	µg/kg	500	8200	500	500	5600	11000	-	-	na	na	na	na	na	na	na	na	na	**180**
Isophorone	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
Naphthalene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	**100**
Nitrobenzene	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
N-Nitroso-di-n-propylamine	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
N-Nitrosodiphenylamine	µg/kg	-	-	-	-	-	-	-	-	na	na	na	na	na	na	na	na	na	84 U
Pentachlorophenol	µg/kg	800	800	2400	6700	6700	55000	800	-	na	na	na	na	na	na	na	na	na	170 U
Phenanthrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	**660**

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value	JS-B-007	JS-B-007	JS-B-008	JS-B-008	JS-B-008	JS-B-009	JS-B-010	JS-B-011	JS-B-012	JS-SS-001
									Location ID:	JS-B-007	JS-B-007	JS-B-008	JS-B-008	JS-B-008	JS-B-009	JS-B-010	JS-B-011	JS-B-012	JS-SS-001
									Sample Date:	11/30/2016	11/30/2016	12/01/2016	12/01/2016	12/01/2016	11/30/2016	11/29/2016	11/29/2016	11/30/2016	07/21/2016
									Sample Depth:	6 - 7 ft	17 - 18 ft	5 - 7 ft	5 - 7 ft	18 - 19 ft	11 - 12 ft	15 - 17 ft	15 - 17 ft	12 - 14 ft	0 - 2 in
									Sample Type:	N	N	FD	N	N	N	N	N	N	N
Phenol	µg/kg	330	330	100000	100000	500000	1000000	30000	-	na	na	na	na	na	na	na	na	na	84 U
Pyrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	na	na	na	na	na	na	na	na	na	**620**
Volatile Organic Compounds (VOCs) by USEPA Method 8260																			
1,1,1-Trichloroethane	µg/kg	680	680	100000	100000	500000	1000000	-	-	**700**	2 U	**60**	**59**	1 U	61 U	1 U	1 U	1 U	0.9 U
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
1,1,2-Trichloroethane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	**5 J**	0.9 U
1,1-Dichloroethane	µg/kg	270	270	19000	26000	240000	480000	-	-	46 U	**2 J**	**4 J**	**3 J**	1 U	61 U	1 U	1 U	**4000**	0.9 U
1,1-Dichloroethene	µg/kg	330	330	100000	100000	500000	1000000	-	-	46 U	2 U	**1 J**	**1 J**	1 U	61 U	1 U	1 U	**2 J**	0.9 U
1,2,3-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 UJ	0.9 U
1,2,4-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 UJ	0.9 U
1,2,4-Trimethylbenzene	µg/kg	3600	3600	47000	52000	190000	380000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
1,2-Dibromo-3-chloropropane	µg/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
1,2-Dibromoethane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
1,2-Dichlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
1,2-Dichloroethane	µg/kg	20	20	2300	3100	30000	60000	10000	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
1,2-Dichloropropane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
1,3,5-Trimethylbenzene	µg/kg	8400	8400	47000	52000	190000	380000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
1,3-Dichlorobenzene	µg/kg	2400	2400	17000	49000	280000	560000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 UJ	0.9 U
1,4-Dichlorobenzene	µg/kg	1800	1800	9800	13000	130000	250000	20000	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 UJ	0.9 U
2-Butanone	µg/kg	120	120	100000	100000	500000	1000000	100000	-	180 U	7 U	4 U	4 U	5 U	240 U	5 U	6 U	6 U	**11**
2-Hexanone	µg/kg	-	-	-	-	-	-	-	-	140 U	5 U	3 U	3 U	4 U	180 U	4 U	4 U	4 U	3 U
4-Methyl-2-pentanone	µg/kg	-	-	-	-	-	-	-	-	140 U	5 U	3 U	3 U	4 U	180 U	4 U	4 U	4 U	3 U
Acetone	µg/kg	50	50	100000	100000	500000	1000000	2200	-	320 U	**17 J**	**18 J**	**14 J**	9 U	430 U	**20 J**	**13 J**	**14 J**	**170**
Benzene	µg/kg	60	60	2900	4800	44000	89000	70000	-	23 U	0.8 U	0.5 U	0.5 U	0.7 U	30 U	0.7 U	0.7 U	0.7 U	0.5 U
Bromochloromethane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Bromodichloromethane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Bromoform	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Bromomethane	µg/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
Carbon Disulfide	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	**1 J**	1 U	1 U	61 U	1 U	1 U	1 U	**6**
Carbon Tetrachloride	µg/kg	760	760	1400	2400	22000	44000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Chlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	40000	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Chloroethane	µg/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
Chloroform	µg/kg	370	370	10000	49000	350000	700000	12000	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Chloromethane	µg/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
cis-1,2-Dichloroethene	µg/kg	250	250	59000	100000	500000	1000000	-	-	46 U	2 U	**19**	**13**	1 U	**630**	1 U	1 U	1 U	0.9 U
cis-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Cyclohexane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Dibromochloromethane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Dichlorodifluoromethane	µg/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
Ethylbenzene	µg/kg	1000	1000	30000	41000	390000	780000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Freon 113	µg/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
Isopropylbenzene (Cumene)	ug/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-B-007	JS-B-007	JS-B-008	JS-B-008	JS-B-008	JS-B-009	JS-B-010	JS-B-011	JS-B-012	JS-SS-001
									Sample Date:	11/30/2016	11/30/2016	12/01/2016	12/01/2016	12/01/2016	11/30/2016	11/29/2016	11/29/2016	11/30/2016	07/21/2016
									Sample Depth:	6 - 7 ft	17 - 18 ft	5 - 7 ft	5 - 7 ft	18 - 19 ft	11 - 12 ft	15 - 17 ft	15 - 17 ft	12 - 14 ft	0 - 2 in
									Sample Type:	N	N	FD	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
m+p-Xylene	ug/kg	260	1600	100000	100000	500000	1000000	260	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Methyl Acetate	ug/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
ry Butyl Ether (MTBE)	ug/kg	930	930	62000	100000	500000	1000000		-	23 U	0.8 U	0.5 U	0.5 U	0.7 U	30 U	0.7 U	0.7 U	0.7 U	0.5 U
Methylcyclohexane	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Methylene Chloride	µg/kg	50	50	51000	100000	500000	1000000	12000	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
n-Butylbenzene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
n-Propylbenzene	µg/kg	3900	3900	100000	100000	500000	1000000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
o-Xylene	µg/kg	260	1600	100000	100000	500000	1000000	260	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
p-Isopropyltoluene	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	**42**
sec-Butylbenzene	µg/kg	11000	11000	100000	100000	500000	1000000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Styrene	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 UJ	0.9 U
tert-Butylbenzene	µg/kg	5900	5900	100000	100000	500000	1000000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Tetrachloroethene	µg/kg	1300	1300	5500	19000	150000	300000	2000	-	46 U	2 U	**2 J**	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
Toluene	µg/kg	700	700	100000	100000	500000	1000000	36000	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U
trans-1,2-Dichloroethene	µg/kg	190	190	100000	100000	500000	1000000	-	-	46 U	2 U	**2 J**	**1 J**	1 U	61 U	1 U	1 U	1 U	0.9 U
trans-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 UJ	0.9 U
Trichloroethene	µg/kg	470	470	10000	21000	200000	400000	2000	-	**4500**	2 U	**3400**	**5100**	1 U	**18000**	1 U	1 U	**1 J**	**9**
Trichlorofluoromethane	µg/kg	-	-	-	-	-	-	-	-	92 U	3 U	2 U	2 U	3 U	120 U	3 U	3 U	3 U	2 U
Vinyl Chloride	µg/kg	20	20	210	900	13000	27000	-	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	**7 J**	0.9 U
Xylene (Total)	µg/kg	260	1600	100000	100000	500000	1000000	260	-	46 U	2 U	1 U	1 U	1 U	61 U	1 U	1 U	1 U	0.9 U

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter

NYS Unrestricted Use SCO
NYS Protection of Groundwater SCO
NYS Residential Use SCO
NYS Restricted Residential SCO
NYS Commercial Use SCO
NYS Industrial Use SCO
NYS Protection of Ecological Resources SCO

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

									Location ID:	JS-SS-001	JS-SS-002	JS-SS-002	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-025	OS-B-025
									Sample Date:	07/21/2016	07/21/2016	07/21/2016	09/13/2016	09/13/2016	09/13/2016	09/30/2016	09/30/2016	09/22/2016	09/22/2016
									Sample Depth:	2 - 12 in	10 - 12 in	12 - 24 in	0 - 2 in	2 - 12 in	2 - 12 in	4 - 6 ft	6 - 8 ft	0 - 2 in	2 - 12 in
									Sample Type:	N	N	N	N	FD	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)																			
Aluminum	mg/kg	-	-	-	-	-	-	-	-	7890	9460	10300	12300	9070	10600	na	25000	6190	8470
Antimony	mg/kg	-	-	-	-	-	-	-	-	2.23 U	0.529 U	0.555 U	2.24 J	1.68 J	1.7 J	na	1.91 J	2.02 J	0.836 J
Arsenic	mg/kg	13	16	16	16	16	16	13	-	6.26	9.11	6.28	7.99	4.64	5.17	na	12	5.22	5.82
Barium	mg/kg	350	820	350	400	400	10000	433	-	67.8	66.5	62.1	61.2	52.5	52.7	na	211	41	46
Beryllium	mg/kg	7.2	47	14	72	590	2700	10	-	0.314 J	0.49 J	0.368 J	0.501 J	0.333 J	0.36 J	na	1.08 J	0.282 J	0.364 J
Cadmium	mg/kg	2.5	7.5	2.5	4.3	9.3	60	4	-	0.665 J	0.33 J	0.307 J	0.566 J	0.41 J	0.395 J	na	0.0557 U	0.321 J	0.481 J
Calcium	mg/kg	-	-	-	-	-	-	-	-	123000	16700	21700	63900	105000	68600	na	7730	78800	22900
Chromium	mg/kg	30		36	180	1500	6800	41	-	14.4	12.2	15.3	13.4	9.14	10.5	na	29.3	11.6	10.9
Cobalt	mg/kg	-	-	-	-	-	-	-	-	5.62	8.22	8.47	9.44	6.38	7.5	na	16.7	5.16	7.57
Copper	mg/kg	50	1720	270	270	270	10000	50	-	21.3	41.9	28.3	34.3	17.7	23.9	na	36.6	24.3	21.1
Iron	mg/kg	-	-	-	-	-	-	-	-	18000	23300	23200	27100	17600	21200	na	44700	14900	18500
Lead	mg/kg	63	450	400	400	1000	3900	63	-	47.1	66.3	128	40.3	24.6	30.9	na	46.4	23.3	12.8
Magnesium	mg/kg	-	-	-	-	-	-	-	-	24800	5240	7080	24200	38200	25200	na	11000	31000 J	14800
Manganese	mg/kg	1600	2000	2000	2000	10000	10000	1600	-	535	447	572	566	493	484	na	861	370	634
Mercury	mg/kg	0.18	0.73	0.81	0.81	2.8	5.7	0.18	-	0.0804 J	0.14	0.341	0.0762 J	0.0919 J	0.154	na	0.153	0.0137 J	0.0204 J
Nickel	mg/kg	30	130	140	310	310	10000	30	-	13.2	18.7	19	24	14.3	16.8	na	35.5	12.9	15.5
Potassium	mg/kg	-	-	-	-	-	-	-	-	1280	948	1100	1890	1330	1370	na	4580	1310	1320
Selenium	mg/kg	3.9	4	36	180	1500	6800	3.9	-	0.805 U	0.681 U	0.713 U	0.922 U	0.714 U	0.767 U	na	4.12 J	0.975 U	0.777 U
Silver	mg/kg	2	8.3	36	180	1500	6800	2	-	0.134 U	0.427 J	0.119 U	0.768 J	0.21 J	0.495 J	na	1.33	1.13	1.45
Sodium	mg/kg	-	-	-	-	-	-	-	-	71.9 J	451	181	64.8 J	56.7 J	50.8 J	na	260	65.5 J	45.9 J
Thallium	mg/kg	-	-	-	-	-	-	-	-	0.733 U	0.62 U	0.65 U	2.45 J	1.61 J	1.72 J	na	5.07 J	0.969 J	1.02 J
Vanadium	mg/kg	-	-	-	-	-	-	-	-	12.3	13.7	13.8	15.9	11.2	12.5	na	31.1	23.1	20.2
Zinc	mg/kg	109	2480	2200	10000	10000	10000	109	-	93.1	118	80	96.6	57.3	72.7	na	110	133	88.5
Total Cyanide by USEPA Method 9010																			
Total Cyanide (water)	mg/kg	27	40	27	27	27	10000	-	-	0.19 U	0.19 U	0.19 U	0.2 UJ	0.19 UJ	0.19 UJ	na	0.23 U	0.21 U	0.2 U
Polychlorined Biphenyls (PCBs) by USEPA Method 8082																			
Aroclor-1016	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.8 U	3.8 U	3.8 U	4.1 U	3.8 U	3.8 U	na	4.5 U	4.3 U	4 U
Aroclor-1221	µg/kg	100	3200	1000	1000	1000	25000	1000	-	4.8 U	4.9 U	4.9 U	5.2 U	4.9 U	4.9 U	na	5.8 U	5.4 U	5.1 U
Aroclor-1232	µg/kg	100	3200	1000	1000	1000	25000	1000	-	8.3 U	8.5 U	8.6 U	9.1 U	8.5 U	8.5 U	na	10 U	9.5 U	8.9 U
Aroclor-1242	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.4 U	3.5 U	3.5 U	3.8 U	3.5 U	3.5 U	na	4.2 U	3.9 U	3.7 U
Aroclor-1248	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.4 U	3.5 U	3.5 U	3.8 U	3.5 U	3.5 U	na	4.2 U	3.9 U	3.7 U
Aroclor-1254	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.4 U	3.5 U	3.5 U	3.8 U	3.5 U	3.5 U	na	4.2 U	6.6 J	3.7 U
Aroclor-1260	µg/kg	100	3200	1000	1000	1000	25000	1000	-	8.8 J	5.2 U	5.2 U	5.6 U	5.2 U	5.2 U	na	6.2 U	5.8 U	5.5 U
Aroclor-1262	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.4 U	3.5 U	3.5 U	3.8 U	3.5 U	3.5 U	na	4.2 U	3.9 U	3.7 U
Aroclor-1268	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.4 U	3.5 U	3.5 U	3.8 U	3.5 U	3.5 U	na	4.2 U	3.9 U	3.7 U
Pesticides by USEPA Method 8081																			
Aldrin	µg/kg	5	190	19	97	680	1400	140	-	0.18 U	0.34 J	0.18 U	0.19 U	0.18 U	0.18 U	na	0.21 U	0.2 U	0.19 U
Alpha BHC	µg/kg	20	20	97	480	3400	6800	40	-	0.18 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	na	0.21 U	0.76 J	0.19 U
Alpha Chlordane	µg/kg	94	2900	910	4200	24000	47000	1300	-	0.18 U	0.55 J	0.18 U	0.19 U	0.18 U	0.18 U	na	0.21 U	0.83 J	0.81 J
Beta BHC	µg/kg	36	90	72	360	3000	14000	600	-	0.31 U	0.32 U	0.32 U	0.34 U	0.39 U	0.32 U	na	0.38 U	0.35 U	0.34 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-SS-001	JS-SS-002	JS-SS-002	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-025	OS-B-025
									Sample Date:	07/21/2016	07/21/2016	07/21/2016	09/13/2016	09/13/2016	09/13/2016	09/30/2016	09/30/2016	09/22/2016	09/22/2016
									Sample Depth:	2 - 12 in	10 - 12 in	12 - 24 in	0 - 2 in	2 - 12 in	2 - 12 in	4 - 6 ft	6 - 8 ft	0 - 2 in	2 - 12 in
									Sample Type:	N	N	N	N	FD	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
Delta BHC	µg/kg	40	250	100000	100000	500000	1000000	40	-	0.47 U	0.48 U	0.48 U	0.51 U	0.48 U	0.48 U	na	0.57 U	0.53 UJ	0.5 UJ
Dieldrin	µg/kg	5	100	39	200	1400	2800	6	-	0.34 U	**0.38 J**	0.35 U	0.37 U	0.35 U	0.35 U	na	0.42 U	0.77 U	0.64 U
Endosulfan I	µg/kg	2400	102000	4800	24000	200000	920000	-	-	0.23 U	0.24 U	0.23 U	0.25 U	0.24 U	0.23 U	na	0.28 U	0.3 U	0.25 U
Endosulfan II	µg/kg	2400	102000	4800	24000	200000	920000	-	-	0.34 U	0.41 U	0.35 U	0.37 U	0.35 U	0.35 U	na	0.42 U	0.39 U	0.37 U
Endosulfan Sulfate	µg/kg	2400	1000000	4800	24000	200000	920000	-	-	0.34 U	2.3 U	**0.79 J**	0.37 U	0.35 U	0.35 U	na	0.42 U	0.39 U	4.8 U
Endrin	µg/kg	14	60	2200	11000	89000	410000	14	-	0.34 U	**0.57 J**	0.35 U	0.37 U	0.35 U	0.35 U	na	0.42 U	**1.3 J**	0.76 U
Endrin Aldehyde	µg/kg	-	-	-	-	-	-	-	-	0.34 U	0.35 U	0.35 U	0.37 U	0.35 U	0.35 U	na	0.42 U	0.72 U	0.37 U
Endrin Ketone	µg/kg	-	-	-	-	-	-	-	-	0.63 U	0.64 U	0.64 U	0.68 U	0.64 U	0.64 U	na	0.76 U	0.7 U	0.67 U
Gamma Chlordane	µg/kg	-	-	-	-	-	-	-	-	0.18 U	0.37 U	0.23 U	0.19 U	0.18 U	0.18 U	na	0.21 U	0.2 U	0.19 U
gamma-BHC (Lindane)	µg/kg	100	100	280	1300	9200	23000	6000	-	0.18 U	0.18 U	0.18 U	0.76 U	0.18 U	0.18 U	na	0.21 U	0.79 U	0.19 U
Heptachlor	µg/kg	42	380	420	2100	15000	29000	140	-	0.18 U	**0.41 J**	0.18 U	**0.39 J**	0.18 U	0.18 U	na	0.21 U	0.2 U	**0.26 J**
Heptachlor Epoxide	µg/kg	-	-	-	-	-	-	-	-	0.18 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	na	0.21 U	0.2 U	0.19 U
Methoxychlor	µg/kg	-	-	-	-	-	-	-	-	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	na	2.1 U	10 U	6.5 U
p,p-DDD	µg/kg	3.3	14000	2600	13000	92000	180000	3.3	-	0.34 U	**1.3 J**	0.35 U	0.37 U	0.35 U	0.35 U	na	0.42 U	**0.42 J**	**0.91 J**
p,p-DDE	µg/kg	3.3	17000	1800	8900	62000	120000	3.3	-	**0.42 J**	**0.36 J**	0.35 U	0.37 U	0.35 U	0.35 U	na	0.42 U	**1.1 J**	**0.9 J**
p,p-DDT	µg/kg	3.3	136000	1700	7900	47000	94000	3.3	-	**1.4 J**	**0.91 J**	**0.84 J**	0.4 U	**0.69 J**	**1.6 J**	na	0.44 U	**3.6 J**	**1.7 J**
Toxaphene	µg/kg								-	15 U	15 U	15 U	16 U	15 U	15 U	na	18 U	16 U	16 U
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270																			
1,1'-Biphenyl	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
1,2,4,5-Tetrachlorobenzene	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
1,4-Dioxane	µg/kg	100	100	9800	13000	130000	250000	100	-	520 U	110 U	110 U	110 U	110 U	100 U	na	130 U	120 U	110 U
2,2'-oxybis(1-Chloropropane)	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2,3,4,6-Tetrachlorophenol	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
2,4,5-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2,4,6-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2,4-Dichlorophenol	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2,4-Dimethylphenol	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 UJ	18 UJ	17 UJ	na	21 U	20 U	19 U
2,4-Dinitrophenol	µg/kg	-	-	-	-	-	-	-	-	1600 U	320 U	320 U	340 U	320 U	310 U	na	380 U	360 U	340 U
2,4-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
2,6-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2-Chloronaphthalene	µg/kg	-	-	-	-	-	-	-	-	35 U	7 U	7 U	8 U	7 U	7 U	na	8 U	8 U	7 U
2-Chlorophenol	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2-Methylnaphthalene	µg/kg	-	-	-	-	-	-	-	-	17 U	**23**	**4 J**	**7 J**	**7 J**	**10 J**	na	4 U	**21**	**9 J**
2-Methylphenol	µg/kg	330	330	100000	100000	500000	1000000	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
2-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
3,3'-Dichlorobenzidine	µg/kg	-	-	-	-	-	-	-	-	520 U	110 U	110 U	110 U	110 U	100 U	na	130 U	120 U	110 U
3-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
4,6-Dinitro-2-methylphenol	µg/kg	-	-	-	-	-	-	-	-	870 U	180 U	180 U	190 U	180 U	170 U	na	210 U	200 U	190 U
4-Bromophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
4-Chloro-3-methylphenol	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
4-Chloroaniline	µg/kg	-	-	-	-	-	-	-	-	170 U	36 U	36 U	38 U	36 U	35 U	na	42 U	40 U	37 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value										
									Location ID:	JS-SS-001	JS-SS-002	JS-SS-002	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-025	OS-B-025
									Sample Date:	07/21/2016	07/21/2016	07/21/2016	09/13/2016	09/13/2016	09/13/2016	09/30/2016	09/30/2016	09/22/2016	09/22/2016
									Sample Depth:	2 - 12 in	10 - 12 in	12 - 24 in	0 - 2 in	2 - 12 in	2 - 12 in	4 - 6 ft	6 - 8 ft	0 - 2 in	2 - 12 in
									Sample Type:	N	N	N	N	FD	N	N	N	N	N
4-Chlorophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
4-Methylphenol	µg/kg	330	330	34000	100000	500000	1000000		-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
4-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
4-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	870 U	180 U	180 U	190 U	180 U	170 U	na	210 U	200 U	190 U
Acenaphthene	µg/kg	20000	98000	100000	100000	500000	1000000	20000	-	17 U	**15 J**	4 U	4 U	**13 J**	3 U	na	4 U	**49**	**32**
Acenaphthylene	µg/kg	100000	107000	100000	100000	500000	1000000	-	-	17 U	**37**	**16 J**	**12 J**	**11 J**	**14 J**	na	**21 J**	**41**	**28**
Acetophenone	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	**27 J**	19 U
Anthracene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	17 U	**76**	**13 J**	**14 J**	**37**	**13 J**	na	**12 J**	**250**	**140**
Atrazine	µg/kg	-	-	-	-	-	-	-	-	170 U	36 U	36 U	38 U	36 U	35 U	na	42 U	40 U	37 U
Benzaldehyde	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
Benzo(a)anthracene	µg/kg	1000	1000	1000	1000	5600	11000	-	-	**41 J**	**330**	**82**	**66**	**130**	**65**	na	**65**	**2500**	**1300**
Benzo(a)pyrene	µg/kg	1000	22000	1000	1000	1000	1100	2600	-	**52 J**	**350**	**97**	**96**	**140**	**75**	na	**51**	**2900**	**1700**
Benzo(b)fluoranthene	µg/kg	1000	1700	1000	1000	5600	11000	-	-	**67 J**	**490**	**110**	**120**	**180**	**91**	na	**81**	**4800**	**2900**
Benzo(g,h,i)perylene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	**49 J**	**220**	**66**	**70**	**83**	**56**	na	**33**	**2800**	**1600**
Benzo(k)fluoranthene	µg/kg	800	1700	1000	3900	56000	110000	-	-	**25 J**	**190**	**53**	**54**	**58**	**41**	na	**38**	**1800**	**910**
bis(2-Chloroethoxy)methane	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
bis(2-Chloroethyl)ether	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
bis(2-Ethylhexyl)phthalate	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	**250**	**96 J**
Butylbenzylphthalate	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
Caprolactam	µg/kg	-	-	-	-	-	-	-	-	170 U	36 U	36 U	38 U	36 U	35 U	na	42 U	40 U	37 U
Carbazole	µg/kg	-	-	-	-	-	-	-	-	87 U	**35 J**	18 U	19 U	18 U	17 U	na	21 U	**330**	**170**
Chrysene	µg/kg	1000	1000	1000	3900	56000	110000	-	-	**50 J**	**360**	**92**	**78**	**140**	**66**	na	**57**	**3200**	**1700**
Dibenz(a,h)anthracene	µg/kg	330	1000000	330	330	560	1100	-	-	17 U	**51**	**15 J**	4 U	**19**	**13 J**	na	**11 J**	**670**	**390**
Dibenzofuran	µg/kg	7000	210000	14000	59000	350000	1000000	-	-	87 U	**21 J**	18 U	19 U	18 U	17 U	na	21 U	**30 J**	19 U
Diethylphthalate	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
Dimethylphthalate	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
Di-n-butylphthalate	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
Di-n-octylphthalate	µg/kg	-	-	-	-	-	-	-	-	350 U	71 U	72 U	76 U	71 U	70 U	na	84 U	79 U	74 U
Fluoranthene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	**71 J**	**670**	**120**	**130**	**230**	**120**	na	**130**	**6600**	**2900**
Fluorene	µg/kg	30000	386000	100000	100000	500000	1000000	30000	-	17 U	**20**	4 U	**5 J**	**11 J**	**4 J**	na	4 U	**64 J**	**38 J**
Hexachlorobenzene	µg/kg	330	3200	330	1200	6000	12000	-	-	17 U	4 U	4 U	4 U	4 U	3 U	na	4 U	4 U	4 U
Hexachlorobutadiene	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
Hexachlorocyclopentadiene	µg/kg	-	-	-	-	-	-	-	-	870 U	180 U	180 U	190 UJ	180 U	170 U	na	210 U	200 U	190 U
Hexachloroethane	µg/kg	-	-	-	-	-	-	-	-	170 U	36 U	36 U	38 U	36 U	35 U	na	42 U	40 U	37 U
Indeno(1,2,3-cd)pyrene	µg/kg	500	8200	500	500	5600	11000	-	-	**34 J**	**200**	**58**	**57**	**83**	**46**	na	**33**	**2500**	**1400**
Isophorone	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
Naphthalene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	17 U	**40**	**9 J**	**13 J**	**10 J**	**14 J**	na	**6 J**	**14 J**	**6 J**
Nitrobenzene	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
N-Nitroso-di-n-propylamine	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
N-Nitrosodiphenylamine	µg/kg	-	-	-	-	-	-	-	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	20 U	19 U
Pentachlorophenol	µg/kg	800	800	2400	6700	6700	55000	800	-	170 U	36 U	36 U	38 U	36 U	35 U	na	42 U	40 U	37 U
Phenanthrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	**38 J**	**370**	**47**	**45**	**130**	**59**	na	**16 J**	**1800**	**960**

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-SS-001	JS-SS-002	JS-SS-002	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-025	OS-B-025
									Sample Date:	07/21/2016	07/21/2016	07/21/2016	09/13/2016	09/13/2016	09/13/2016	09/30/2016	09/30/2016	09/22/2016	09/22/2016
									Sample Depth:	2 - 12 in	10 - 12 in	12 - 24 in	0 - 2 in	2 - 12 in	2 - 12 in	4 - 6 ft	6 - 8 ft	0 - 2 in	2 - 12 in
									Sample Type:	N	N	N	N	FD	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
Phenol	µg/kg	330	330	100000	100000	500000	1000000	30000	-	87 U	18 U	18 U	19 U	18 U	17 U	na	21 U	**22 J**	19 U
Pyrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	**79 J**	**610**	**120**	**120**	**220**	**100**	na	**110**	**4400**	**2300**
Volatile Organic Compounds (VOCs) by USEPA Method 8260																			
1,1,1-Trichloroethane	µg/kg	680	680	100000	100000	500000	1000000	-	-	0.9 U	**2 J**	**4 J**	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	µg/kg	270	270	19000	26000	240000	480000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	µg/kg	330	330	100000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	µg/kg	3600	3600	47000	52000	190000	380000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dibromoethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	µg/kg	20	20	2300	3100	30000	60000	10000	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	µg/kg	8400	8400	47000	52000	190000	380000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	µg/kg	2400	2400	17000	49000	280000	560000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	µg/kg	1800	1800	9800	13000	130000	250000	20000	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
2-Butanone	µg/kg	120	120	100000	100000	500000	1000000	100000	-	**5 J**	**5 J**	3 U	**8 J**	3 U	3 U	**11 J**	5 U	**42**	**11**
2-Hexanone	µg/kg	-	-	-	-	-	-	-	-	3 U	3 U	3 U	3 U	2 U	2 U	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	µg/kg	-	-	-	-	-	-	-	-	3 U	3 U	3 U	3 U	2 U	2 U	3 U	3 U	3 U	3 U
Acetone	µg/kg	50	50	100000	100000	500000	1000000	2200	-	**47**	**39**	**33**	81 U	12 U	15 U	**94**	8 U	**230**	**97**
Benzene	µg/kg	60	60	2900	4800	44000	89000	70000	-	0.4 U	0.4 U	0.4 U	**0.9 J**	0.4 U	0.4 U	0.6 U	0.6 U	0.5 U	0.5 U
Bromochloromethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Bromodichloromethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Bromoform	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Bromomethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbon Disulfide	µg/kg	-	-	-	-	-	-	-	-	**1 J**	0.8 U	**2 J**	**6**	**2 J**	**2 J**	**1 J**	1 U	**2 J**	**8**
Carbon Tetrachloride	µg/kg	760	760	1400	2400	22000	44000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Chlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	40000	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Chloroethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Chloroform	µg/kg	370	370	10000	49000	350000	700000	12000	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Chloromethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	µg/kg	250	250	59000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Cyclohexane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Dibromochloromethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Ethylbenzene	µg/kg	1000	1000	30000	41000	390000	780000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Freon 113	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isopropylbenzene (Cumene)	ug/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	JS-SS-001	JS-SS-002	JS-SS-002	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-024	OS-B-025	OS-B-025
									Sample Date:	07/21/2016	07/21/2016	07/21/2016	09/13/2016	09/13/2016	09/13/2016	09/30/2016	09/30/2016	09/22/2016	09/22/2016
									Sample Depth:	2 - 12 in	10 - 12 in	12 - 24 in	0 - 2 in	2 - 12 in	2 - 12 in	4 - 6 ft	6 - 8 ft	0 - 2 in	2 - 12 in
									Sample Type:	N	N	N	N	FD	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**										
m+p-Xylene	ug/kg	260	1600	100000	100000	500000	1000000	260	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Methyl Acetate	ug/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
ry Butyl Ether (MTBE)	ug/kg	930	930	62000	100000	500000	1000000		-	0.4 U	0.4 U	0.4 U	0.6 U	0.4 U	0.4 U	0.6 U	0.6 U	0.5 U	0.5 U
Methylcyclohexane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/kg	50	50	51000	100000	500000	1000000	12000	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
n-Butylbenzene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
n-Propylbenzene	µg/kg	3900	3900	100000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
o-Xylene	µg/kg	260	1600	100000	100000	500000	1000000	260	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	µg/kg	-	-	-	-	-	-	-	-	**30**	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	µg/kg	11000	11000	100000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Styrene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	µg/kg	5900	5900	100000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Tetrachloroethene	µg/kg	1300	1300	5500	19000	150000	300000	2000	-	0.9 U	0.8 U	**1 J**	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Toluene	µg/kg	700	700	100000	100000	500000	1000000	36000	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	µg/kg	190	190	100000	100000	500000	1000000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Trichloroethene	µg/kg	470	470	10000	21000	200000	400000	2000	-	**14**	**67**	**120**	1 U	0.8 U	0.8 U	**3 J**	1 U	1 U	1 U
Trichlorofluoromethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/kg	20	20	210	900	13000	27000	-	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U
Xylene (Total)	µg/kg	260	1600	100000	100000	500000	1000000	260	-	0.9 U	0.8 U	0.8 U	1 U	0.8 U	0.8 U	1 U	1 U	1 U	1 U

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter

NYS Unrestricted Use SCO
NYS Protection of Groundwater SCO
NYS Residential Use SCO
NYS Restricted Residential SCO
NYS Commercial Use SCO
NYS Industrial Use SCO
NYS Protection of Ecological Resources SCO

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value							
									Location ID:	OS-B-025	OS-B-028	OS-B-028	OS-B-028	OS-B-028	OS-B-030	OS-B-030
									Sample Date:	10/11/2016	09/26/2016	09/26/2016	10/06/2016	10/06/2016	11/15/2016	11/15/2016
									Sample Depth:	11 - 13 ft	3 - 5 in	5 - 12 in	6 - 8 ft	12 - 16 ft	11.7 - 13.7 ft	13.7 - 15 ft
									Sample Type:	N	N	N	N	N	N	N
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)																
Aluminum	mg/kg	-	-	-	-	-	-	-	-	**14500**	**9850**	**10400**	**18200**	**22200**	**9490**	**28400**
Antimony	mg/kg	-	-	-	-	-	-	-	-	**0.904 J**	**2.22 J**	**1.93 J**	0.791 U	0.844 U	**1.24 J**	**2.37 J**
Arsenic	mg/kg	13	16	16	16	16	16	13	-	**3.36 J**	**4.42**	**8.02**	**6.25**	**8.27**	**5.13**	**12.5**
Barium	mg/kg	350	820	350	400	400	10000	433	-	**80.8**	**55.4**	**210**	**120**	**147**	**39**	**196**
Beryllium	mg/kg	7.2	47	14	72	590	2700	10	-	**0.552 J**	**0.507 J**	**0.629 J**	**0.626 J**	**0.927 J**	**0.343 J**	**1.23 J**
Cadmium	mg/kg	2.5	7.5	2.5	4.3	9.3	60	4	-	**0.338 J**	**0.493 J**	**0.724 J**	0.0554 U	0.0591 U	0.0378 U	0.0696 U
Calcium	mg/kg	-	-	-	-	-	-	-	-	**1510**	**9340**	**5990**	**1520**	**10300**	**537**	**15000**
Chromium	mg/kg	30		36	180	1500	6800	41	-	**16.3**	**14.6**	**16.8**	**19.7**	**22.6**	**7.48**	**27.2**
Cobalt	mg/kg	-	-	-	-	-	-	-	-	**9.43**	**7.6**	**8.64**	**11.8**	**15.5**	**8.74 J**	**22.7**
Copper	mg/kg	50	1720	270	270	270	10000	50	-	**21.3**	**57.2**	**99.7**	**32.6**	**32.9**	**35 J**	**45.7**
Iron	mg/kg	-	-	-	-	-	-	-	-	**27300**	**25000**	**21000**	**39000**	**41400**	**24800 J**	**52200**
Lead	mg/kg	63	450	400	400	1000	3900	63	-	**10.4**	**97.5**	**189**	**21.1**	**16.9**	**3.02**	**8.3**
Magnesium	mg/kg	-	-	-	-	-	-	-	-	**5940**	**8670**	**4100**	**8250**	**11000**	**3710**	**15400**
Manganese	mg/kg	1600	2000	2000	2000	10000	10000	1600	-	**320**	**466**	**596**	**863**	**773**	**765**	**1470**
Mercury	mg/kg	0.18	0.73	0.81	0.81	2.8	5.7	0.18	-	**0.288**	**0.0186 J**	**0.163**	**0.0424 J**	**0.0338 J**	0.0105 U	**0.0289 J**
Nickel	mg/kg	30	130	140	310	310	10000	30	-	**22.9**	**17.8**	**20.4**	**28.6**	**28.9**	**16.6 J**	**43.4**
Potassium	mg/kg	-	-	-	-	-	-	-	-	**1710**	**1310**	**1210**	**2450**	**4240**	**1170 J**	**4550**
Selenium	mg/kg	3.9	4	36	180	1500	6800	3.9	-	0.896 U	0.68 U	0.865 U	1.02 U	**1.73 J**	**2.05 J**	**3.57 J**
Silver	mg/kg	2	8.3	36	180	1500	6800	2	-	**0.593 J**	**0.481 J**	**0.639 J**	**2.85**	**2.75**	**0.908**	**1.69**
Sodium	mg/kg	-	-	-	-	-	-	-	-	**127 J**	**110 J**	**213**	**395**	**317**	**262**	**377**
Thallium	mg/kg	-	-	-	-	-	-	-	-	**1.88 J**	0.62 U	0.788 U	**2.26 J**	**3.17 J**	**2.42 J**	**5.4 J**
Vanadium	mg/kg	-	-	-	-	-	-	-	-	**18.7**	**30.4**	**28**	**24.5**	**27.4**	**9.61**	**30.6**
Zinc	mg/kg	109	2480	2200	10000	10000	10000	109	-	**61.1**	**129**	**176**	**84.8**	**92.9**	**48.3**	**126**
Total Cyanide by USEPA Method 9010																
Total Cyanide (water)	mg/kg	27	40	27	27	27	10000	-	-	0.21 U	0.19 U	0.19 U	0.21 U	0.22 U	na	na
Polychlorined Biphenyls (PCBs) by USEPA Method 8082																
Aroclor-1016	µg/kg	100	3200	1000	1000	1000	25000	1000	-	4.1 U	3.7 UJ	4 UJ	4.1 U	4.5 U	na	na
Aroclor-1221	µg/kg	100	3200	1000	1000	1000	25000	1000	-	5.3 U	4.8 UJ	5.1 UJ	5.3 U	5.8 U	na	na
Aroclor-1232	µg/kg	100	3200	1000	1000	1000	25000	1000	-	9.2 U	8.3 UJ	8.8 UJ	9.2 U	10 U	na	na
Aroclor-1242	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.8 U	3.4 UJ	3.6 UJ	3.8 U	4.2 U	na	na
Aroclor-1248	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.8 U	3.4 UJ	3.6 UJ	3.8 U	4.2 U	na	na
Aroclor-1254	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.8 U	3.4 UJ	3.6 UJ	3.8 U	4.2 U	na	na
Aroclor-1260	µg/kg	100	3200	1000	1000	1000	25000	1000	-	5.6 U	5.1 UJ	**34 J**	5.6 U	6.2 U	na	na
Aroclor-1262	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.8 U	3.4 UJ	3.6 UJ	3.8 U	4.2 U	na	na
Aroclor-1268	µg/kg	100	3200	1000	1000	1000	25000	1000	-	3.8 U	3.4 UJ	3.6 UJ	3.8 U	4.2 U	na	na
Pesticides by USEPA Method 8081																
Aldrin	µg/kg	5	190	19	97	680	1400	140	-	0.2 U	0.89 U	0.19 U	0.2 U	0.22 U	na	na
Alpha BHC	µg/kg	20	20	97	480	3400	6800	40	-	0.2 U	0.89 U	0.19 U	0.2 U	0.22 U	na	na
Alpha Chlordane	µg/kg	94	2900	910	4200	24000	47000	1300	-	0.2 U	0.89 U	**0.27 J**	0.2 U	0.22 U	na	na
Beta BHC	µg/kg	36	90	72	360	3000	14000	600	-	0.34 U	1.6 U	0.33 U	0.35 U	0.38 U	na	na

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	OS-B-025	OS-B-028	OS-B-028	OS-B-028	OS-B-028	OS-B-030	OS-B-030
									Sample Date:	10/11/2016	09/26/2016	09/26/2016	10/06/2016	10/06/2016	11/15/2016	11/15/2016
									Sample Depth:	11 - 13 ft	3 - 5 in	5 - 12 in	6 - 8 ft	12 - 16 ft	11.7 - 13.7 ft	13.7 - 15 ft
									Sample Type:	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**							
Delta BHC	µg/kg	40	250	100000	100000	500000	1000000	40	-	0.52 U	2.4 UJ	0.5 UJ	0.52 U	0.57 U	na	na
Dieldrin	µg/kg	5	100	39	200	1400	2800	6	-	0.38 U	1.7 U	1.4 U	0.38 U	0.42 U	na	na
Endosulfan I	µg/kg	2400	102000	4800	24000	200000	920000	-	-	0.25 U	1.1 U	0.24 U	0.25 U	0.28 U	na	na
Endosulfan II	µg/kg	2400	102000	4800	24000	200000	920000	-	-	0.38 U	1.7 U	0.36 U	0.38 U	0.42 U	na	na
Endosulfan Sulfate	µg/kg	2400	1000000	4800	24000	200000	920000	-	-	0.38 U	1.7 U	0.36 U	0.38 U	0.42 U	na	na
Endrin	µg/kg	14	60	2200	11000	89000	410000	14	-	0.38 U	1.7 U	0.44 U	0.38 U	0.42 U	na	na
Endrin Aldehyde	µg/kg	-	-	-	-	-	-	-	-	0.38 U	1.7 U	0.36 U	0.38 U	**1.3 J**	na	na
Endrin Ketone	µg/kg	-	-	-	-	-	-	-	-	0.69 U	3.1 U	0.66 U	0.69 U	0.76 U	na	na
Gamma Chlordane	µg/kg	-	-	-	-	-	-	-	-	0.2 U	0.89 U	0.19 U	0.2 U	0.22 U	na	na
gamma-BHC (Lindane)	µg/kg	100	100	280	1300	9200	23000	6000	-	0.2 U	0.89 U	0.27 U	0.2 U	0.22 U	na	na
Heptachlor	µg/kg	42	380	420	2100	15000	29000	140	-	0.2 U	0.89 U	0.19 U	0.2 U	0.22 U	na	na
Heptachlor Epoxide	µg/kg	-	-	-	-	-	-	-	-	0.2 U	0.89 U	0.19 U	0.2 U	0.22 U	na	na
Methoxychlor	µg/kg	-	-	-	-	-	-	-	-	2 U	8.9 U	1.9 U	2 U	2.2 U	na	na
p,p-DDD	µg/kg	3.3	14000	2600	13000	92000	180000	3.3	-	0.38 U	1.7 U	0.88 U	0.38 U	0.42 U	na	na
p,p-DDE	µg/kg	3.3	17000	1800	8900	62000	120000	3.3	-	0.38 U	**1.9 J**	**1.4 J**	0.38 U	0.42 U	na	na
p,p-DDT	µg/kg	3.3	136000	1700	7900	47000	94000	3.3	-	0.4 U	**4.1 J**	**5.2 J**	0.4 U	0.44 U	na	na
Toxaphene	µg/kg								-	16 U	73 U	15 U	16 U	18 U	na	na
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270																
1,1'-Biphenyl	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	**52**	na	na
1,2,4,5-Tetrachlorobenzene	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
1,4-Dioxane	µg/kg	100	100	9800	13000	130000	250000	100	-	120 U	2600 U	2700 U	120 U	130 U	na	na
2,2'-oxybis(1-Chloropropane)	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2,3,4,6-Tetrachlorophenol	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
2,4,5-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2,4,6-Trichlorophenol	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2,4-Dichlorophenol	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2,4-Dimethylphenol	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2,4-Dinitrophenol	µg/kg	-	-	-	-	-	-	-	-	350 U	7800 U	8200 U	350 U	380 U	na	na
2,4-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
2,6-Dinitrotoluene	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2-Chloronaphthalene	µg/kg	-	-	-	-	-	-	-	-	8 U	170 U	180 U	8 U	8 U	na	na
2-Chlorophenol	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2-Methylnaphthalene	µg/kg	-	-	-	-	-	-	-	-	4 U	87 U	91 U	4 U	**92**	na	na
2-Methylphenol	µg/kg	330	330	100000	100000	500000	1000000	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
2-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
3,3'-Dichlorobenzidine	µg/kg	-	-	-	-	-	-	-	-	120 U	2600 U	2700 U	120 U	130 U	na	na
3-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
4,6-Dinitro-2-methylphenol	µg/kg	-	-	-	-	-	-	-	-	190 U	4400 U	4500 U	190 U	210 U	na	na
4-Bromophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
4-Chloro-3-methylphenol	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
4-Chloroaniline	µg/kg	-	-	-	-	-	-	-	-	38 U	870 U	910 U	39 U	42 U	na	na

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

ERM

									Location ID:	OS-B-025	OS-B-028	OS-B-028	OS-B-028	OS-B-028	OS-B-030	OS-B-030
									Sample Date:	10/11/2016	09/26/2016	09/26/2016	10/06/2016	10/06/2016	11/15/2016	11/15/2016
									Sample Depth:	11 - 13 ft	3 - 5 in	5 - 12 in	6 - 8 ft	12 - 16 ft	11.7 - 13.7 ft	13.7 - 15 ft
									Sample Type:	N	N	N	N	N	N	N
Constituent	**Units**	**NY375 1UNRES**	**NY375 2RPGW**	**NY375 3RRES**	**NY375 4RRRES**	**NY375 5RCOMM**	**NY375 6RINDU**	**NY375 7PER**	**USEPA Screen Value**							
4-Chlorophenyl-phenylether	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
4-Methylphenol	µg/kg	330	330	34000	100000	500000	1000000		-	19 U	440 U	450 U	19 U	21 U	na	na
4-Nitroaniline	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
4-Nitrophenol	µg/kg	-	-	-	-	-	-	-	-	190 U	4400 U	4500 U	190 U	210 U	na	na
Acenaphthene	µg/kg	20000	98000	100000	100000	500000	1000000	20000	-	4 U	87 U	91 U	4 U	4 U	na	na
Acenaphthylene	µg/kg	100000	107000	100000	100000	500000	1000000	-	-	4 U	**110 J**	91 U	**6 J**	4 U	na	na
Acetophenone	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
Anthracene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	4 U	**130 J**	91 U	**5 J**	**10 J**	na	na
Atrazine	µg/kg	-	-	-	-	-	-	-	-	38 U	870 U	910 U	39 U	42 U	na	na
Benzaldehyde	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
Benzo(a)anthracene	µg/kg	1000	1000	1000	1000	5600	11000	-	-	4 U	**540**	**270 J**	**27**	**21 J**	na	na
Benzo(a)pyrene	µg/kg	1000	22000	1000	1000	1000	1100	2600	-	4 U	**630**	**340 J**	**38**	**24**	na	na
Benzo(b)fluoranthene	µg/kg	1000	1700	1000	1000	5600	11000	-	-	4 U	**860**	**390 J**	**44**	**30**	na	na
Benzo(g,h,i)perylene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	4 U	**580**	**340 J**	**28**	**14 J**	na	na
Benzo(k)fluoranthene	µg/kg	800	1700	1000	3900	56000	110000	-	-	4 U	**400 J**	**250 J**	**23**	**16 J**	na	na
bis(2-Chloroethoxy)methane	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
bis(2-Chloroethyl)ether	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
bis(2-Ethylhexyl)phthalate	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
Butylbenzylphthalate	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
Caprolactam	µg/kg	-	-	-	-	-	-	-	-	38 U	870 U	910 U	39 U	42 U	na	na
Carbazole	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
Chrysene	µg/kg	1000	1000	1000	3900	56000	110000	-	-	4 U	**730**	**340 J**	**36**	**45**	na	na
Dibenz(a,h)anthracene	µg/kg	330	1000000	330	330	560	1100	-	-	4 U	**110 J**	91 U	**10 J**	4 U	na	na
Dibenzofuran	µg/kg	7000	210000	14000	59000	350000	1000000	-	-	19 U	440 U	450 U	19 U	21 U	na	na
Diethylphthalate	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
Dimethylphthalate	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
Di-n-butylphthalate	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
Di-n-octylphthalate	µg/kg	-	-	-	-	-	-	-	-	77 U	1700 U	1800 U	77 U	84 U	na	na
Fluoranthene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	**5 J**	**1300**	**500**	**49**	**46**	na	na
Fluorene	µg/kg	30000	386000	100000	100000	500000	1000000	30000	-	4 U	87 U	91 U	4 U	4 U	na	na
Hexachlorobenzene	µg/kg	330	3200	330	1200	6000	12000	-	-	4 U	87 U	91 U	4 U	4 U	na	na
Hexachlorobutadiene	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
Hexachlorocyclopentadiene	µg/kg	-	-	-	-	-	-	-	-	190 U	4400 U	4500 U	190 U	210 U	na	na
Hexachloroethane	µg/kg	-	-	-	-	-	-	-	-	38 U	870 U	910 U	39 U	42 U	na	na
Indeno(1,2,3-cd)pyrene	µg/kg	500	8200	500	500	5600	11000	-	-	4 U	**430 J**	**240 J**	**21**	**14 J**	na	na
Isophorone	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
Naphthalene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	4 U	87 U	91 U	4 U	**39**	na	na
Nitrobenzene	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
N-Nitroso-di-n-propylamine	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
N-Nitrosodiphenylamine	µg/kg	-	-	-	-	-	-	-	-	19 U	440 U	450 U	19 U	21 U	na	na
Pentachlorophenol	µg/kg	800	800	2400	6700	6700	55000	800	-	38 U	870 U	910 U	39 U	42 U	na	na
Phenanthrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	4 U	**720**	**230 J**	**14 J**	**47**	na	na

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value							
									Location ID:	OS-B-025	OS-B-028	OS-B-028	OS-B-028	OS-B-028	OS-B-030	OS-B-030
									Sample Date:	10/11/2016	09/26/2016	09/26/2016	10/06/2016	10/06/2016	11/15/2016	11/15/2016
									Sample Depth:	11 - 13 ft	3 - 5 in	5 - 12 in	6 - 8 ft	12 - 16 ft	11.7 - 13.7 ft	13.7 - 15 ft
									Sample Type:	N	N	N	N	N	N	N
Phenol	µg/kg	330	330	100000	100000	500000	1000000	30000	-	19 U	440 U	450 U	19 U	21 U	na	na
Pyrene	µg/kg	100000	1000000	100000	100000	500000	1000000	-	-	**4 J**	**1100**	**450 J**	**46**	**48**	na	na
Volatile Organic Compounds (VOCs) by USEPA Method 8260																
1,1,1-Trichloroethane	µg/kg	680	680	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	µg/kg	270	270	19000	26000	240000	480000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	µg/kg	330	330	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	µg/kg	3600	3600	47000	52000	190000	380000	-	-	0.9 U	1 U	1 U	1 U	**42**	1 U	1 U
1,2-Dibromo-3-chloropropane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
1,2-Dibromoethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	µg/kg	20	20	2300	3100	30000	60000	10000	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	µg/kg	8400	8400	47000	52000	190000	380000	-	-	0.9 U	1 U	1 U	1 U	**13**	1 U	1 U
1,3-Dichlorobenzene	µg/kg	2400	2400	17000	49000	280000	560000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	µg/kg	1800	1800	9800	13000	130000	250000	20000	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	µg/kg	120	120	100000	100000	500000	1000000	100000	-	3 U	4 U	4 U	**10 J**	5 U	4 U	5 U
2-Hexanone	µg/kg	-	-	-	-	-	-	-	-	3 U	3 U	3 U	3 U	4 U	3 U	3 U
4-Methyl-2-pentanone	µg/kg	-	-	-	-	-	-	-	-	3 U	3 U	3 U	3 U	4 U	3 U	3 U
Acetone	µg/kg	50	50	100000	100000	500000	1000000	2200	-	**27**	**22**	**26**	**100**	**41**	**12 J**	**11 J**
Benzene	µg/kg	60	60	2900	4800	44000	89000	70000	-	0.4 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.6 U
Bromochloromethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
Carbon Disulfide	µg/kg	-	-	-	-	-	-	-	-	0.9 U	**3 J**	**1 J**	1 U	1 U	1 U	1 U
Carbon Tetrachloride	µg/kg	760	760	1400	2400	22000	44000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	µg/kg	1100	1100	100000	100000	500000	1000000	40000	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
Chloroform	µg/kg	370	370	10000	49000	350000	700000	12000	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
cis-1,2-Dichloroethene	µg/kg	250	250	59000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
Ethylbenzene	µg/kg	1000	1000	30000	41000	390000	780000	-	-	0.9 U	1 U	1 U	1 U	**1 J**	1 U	1 U
Freon 113	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
Isopropylbenzene (Cumene)	ug/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	**2 J**	1 U	1 U

Table 12
Analytical Results for Other Parameters from Soil Samples
Former Oak Materials Fluorglas Division - John Street

									Location ID:	OS-B-025	OS-B-028	OS-B-028	OS-B-028	OS-B-028	OS-B-030	OS-B-030
									Sample Date:	10/11/2016	09/26/2016	09/26/2016	10/06/2016	10/06/2016	11/15/2016	11/15/2016
									Sample Depth:	11 - 13 ft	3 - 5 in	5 - 12 in	6 - 8 ft	12 - 16 ft	11.7 - 13.7 ft	13.7 - 15 ft
									Sample Type:	N	N	N	N	N	N	N
Constituent	Units	NY375 1UNRES	NY375 2RPGW	NY375 3RRES	NY375 4RRRES	NY375 5RCOMM	NY375 6RINDU	NY375 7PER	USEPA Screen Value							
m+p-Xylene	ug/kg	260	1600	100000	100000	500000	1000000	260	-	0.9 U	1 U	1 U	1 U	**3 J**	1 U	1 U
Methyl Acetate	ug/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	**5 J**	3 U	2 U	2 U
ry Butyl Ether (MTBE)	ug/kg	930	930	62000	100000	500000	1000000		-	0.4 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.6 U
Methylcyclohexane	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/kg	50	50	51000	100000	500000	1000000	12000	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
n-Butylbenzene	µg/kg	12000	12000	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	**7**	1 U	1 U
n-Propylbenzene	µg/kg	3900	3900	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	**6 J**	1 U	1 U
o-Xylene	µg/kg	260	1600	100000	100000	500000	1000000	260	-	0.9 U	1 U	1 U	1 U	**5 J**	1 U	1 U
p-Isopropyltoluene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	**4 J**	1 U	1 U
sec-Butylbenzene	µg/kg	11000	11000	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	**6**	1 U	1 U
Styrene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	µg/kg	5900	5900	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	µg/kg	1300	1300	5500	19000	150000	300000	2000	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	µg/kg	700	700	100000	100000	500000	1000000	36000	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	µg/kg	190	190	100000	100000	500000	1000000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	µg/kg	-	-	-	-	-	-	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	µg/kg	470	470	10000	21000	200000	400000	2000	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	µg/kg	-	-	-	-	-	-	-	-	2 U	2 U	2 U	2 U	3 U	2 U	2 U
Vinyl Chloride	µg/kg	20	20	210	900	13000	27000	-	-	0.9 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (Total)	µg/kg	260	1600	100000	100000	500000	1000000	260	-	0.9 U	1 U	1 U	1 U	**8**	1 U	1 U

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NY Part 375 = NYS Soil Cleanup Objective (SCO) in Title 6 of Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Subpart 375-6.8(a).
USEPA Screening Values for PFOA and PFOS developed by USEPA based on the Health Advisory for PFOA and PFOS of 70 nanograms per liter

NYS Unrestricted Use SCO
NYS Protection of Groundwater SCO
NYS Residential Use SCO
NYS Restricted Residential SCO
NYS Commercial Use SCO
NYS Industrial Use SCO
NYS Protection of Ecological Resources SCO

Table 13
Analytical Results for Other Parameters from Surface Water Samples
Former Oak Materials Fluorglas Division - John Street

		Location ID:	OS-SW-015	OS-SW-016	OS-SW-017	OS-SW-018
		Sample Date:	10/19/2016	10/19/2016	10/20/2016	10/20/2016
		Sample Depth:	-	-	-	-
		Sample Type:	N	N	N	N
Constituent	**Units**	**NYSDEC Class C Value (Fresh water)**				
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)						
Aluminum	mg/l	0.1	0.0868 U	0.0868 U	0.0868 U	0.0868 U
Antimony	mg/l	-	0.0077 U	0.0077 U	0.0077 U	0.0077 U
Arsenic	mg/l	0.15	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Barium	mg/l	-	**0.024**	**0.0286**	**0.0311**	**0.0269**
Beryllium	mg/l	0.011[a]	0.00067 U	0.00067 U	0.00067 U	0.00067 U
Cadmium	mg/l	0.0017[a]	0.00049 U	0.00049 U	0.00049 U	0.00049 U
Calcium	mg/l	-	**38.6**	**45.5**	**51.2**	**48.6**
Chromium	mg/l	0.0586[a]	0.0018 U	0.0018 U	0.0018 U	0.0018 U
Cobalt	mg/l	0.005	0.0019 U	0.0019 U	0.0019 U	0.0019 U
Copper	mg/l	0.007[a]	0.0041 U	**0.0043 J**	0.0041 U	0.0041 U
Iron	mg/l	0.3	0.0747 U	0.0747 U	0.0747 U	0.0747 U
Lead	mg/l	0.0011[a]	0.0062 U	0.0062 U	0.0062 U	0.0062 U
Magnesium	mg/l	-	**7.79**	**8.28**	**8.85**	**9.17**
Manganese	mg/l	-	0.0018 U	**0.0045 J**	**0.0032 J**	**0.0022 J**
Mercury	mg/l	7.00E-07[b]	5E-05 U	5E-05 UJ	5E-05 U	5E-05 U
Nickel	mg/l	0.0408[a]	0.0028 U	0.0028 U	0.0028 U	0.0028 U
Potassium	mg/l	-	**4.75**	**4.73**	**3.99**	**3.62**
Selenium	mg/l	0.0046[a]	0.0097 U	0.0097 U	0.0097 U	0.0097 U
Silver	mg/l	0.0001[c]	0.0019 U	0.0019 U	0.0019 U	0.0019 U
Sodium	mg/l	-	**77**	**78**	**76.4**	**54.4**
Thallium	mg/l	0.008	0.0094 U	0.0094 U	0.0094 U	0.0094 U
Vanadium	mg/l	0.014	0.0016 U	0.0016 U	0.0016 U	0.0016 U
Zinc	mg/l	0.0647[a,b]	0.0054 U	0.0054 U	0.0054 U	0.0054 U
Total Cyanide by USEPA Method 9010						
Total Cyanide (water)	mg/l	0.0052	0.005 U	0.005 U	0.005 U	0.005 U
Polychlorined Biphenyls (PCBs) by USEPA Method 8082						
Aroclor-1016	µg/l	0.000001[d]	0.084 U	0.084 U	0.09 U	0.084 U
Aroclor-1221	µg/l	0.000001[d]	0.084 U	0.084 U	0.09 U	0.084 U
Aroclor-1232	µg/l	0.000001[d]	0.17 U	0.17 U	0.18 U	0.17 U
Aroclor-1242	µg/l	0.000001[d]	0.084 U	0.084 U	0.09 U	0.084 U
Aroclor-1248	µg/l	0.000001[d]	0.084 U	0.084 U	0.09 U	0.084 U
Aroclor-1254	µg/l	0.000001[d]	0.084 U	0.084 U	0.09 U	0.084 U
Aroclor-1260	µg/l	0.000001[d]	0.13 U	0.13 U	0.13 U	0.13 U
Aroclor-1262	µg/l	0.000001[d]	0.17 U	0.17 U	0.18 U	0.17 U
Aroclor-1268	µg/l	0.000001[d]	0.13 U	0.14 U	0.14 U	0.13 U
Pesticides by USEPA Method 8081						
Aldrin	µg/l	0.001[e]	0.0017 U	0.0017 U	0.0018 U	0.0017 U
Alpha BHC	µg/l	0.002	0.0025 U	0.0025 U	0.0027 U	0.0025 U
Alpha Chlordane	µg/l	0.00002[f]	0.0025 U	0.0025 U	0.0027 U	0.0025 U
Beta BHC	µg/l	0.007	0.0028 U	0.0029 U	0.003 U	0.0029 U
Delta BHC	µg/l	0.008	0.0028 U	0.0029 U	0.003 U	0.0029 U
Dieldrin	µg/l	0.001[e]	0.0044 U	0.0045 U	0.0048 U	0.0045 U
Endosulfan I	µg/l	0.009[g]	0.0036 U	0.0036 U	0.0039 U	0.0036 U
Endosulfan II	µg/l	0.009[g]	0.013 U	0.013 U	0.013 U	0.013 U
Endosulfan Sulfate	µg/l	0.009[g]	0.0049 U	0.0049 U	0.0052 U	0.0049 U
Endrin	µg/l	0.002	0.0068 U	0.0068 U	0.0073 U	0.0068 U
Endrin Aldehyde	µg/l	-	0.017 U	0.017 U	0.018 U	0.017 U
Endrin Ketone	µg/l	-	0.0042 U	0.0042 U	0.0045 U	0.0042 U
Gamma Chlordane	µg/l	0.00002[f]	0.0059 U	0.0059 U	0.0063 U	0.0059 U
Gamma BHC - Lindane	µg/l	0.008	0.0017 U	0.0017 U	0.0018 U	0.0017 U
Heptachlor	µg/l	0.0002	0.0017 U	0.0017 U	0.0018 U	0.0017 U
Heptachlor Epoxide	µg/l	0.0003	0.0019 U	0.0019 U	0.0021 U	0.0019 U
Methoxychlor	µg/l	0.03	0.025 U	0.025 U	0.027 U	0.025 U
p,p-DDD	µg/l	0.000011[h]	0.0042 U	0.0042 U	0.0045 U	0.0042 U
p,p-DDE	µg/l	0.000011[h]	0.0042 U	0.0042 U	0.0045 U	0.0042 U
p,p-DDT	µg/l	0.000011[h]	0.0044 U	0.0044 U	0.0047 U	0.0044 U
Toxaphene	µg/l	0.000006	0.25 U	0.25 U	0.27 U	0.25 U

Table 13
Analytical Results for Other Parameters from Surface Water Samples
Former Oak Materials Fluorglas Division - John Street

		Location ID:	OS-SW-015	OS-SW-016	OS-SW-017	OS-SW-018
		Sample Date:	10/19/2016	10/19/2016	10/20/2016	10/20/2016
		Sample Depth:	-	-	-	-
		Sample Type:	N	N	N	N
Constituent	Units	NYSDEC Class C Value (Fresh water)				
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270						
1,1'-Biphenyl	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
1,2,4,5-Tetrachlorobenzene	µg/l		0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
1,4-Dioxane	µg/l	-	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
2,2'-oxybis(1-Chloropropane)	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2,3,4,6-Tetrachlorophenol	µg/l		0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2,4,5-Trichlorophenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2,4,6-Trichlorophenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2,4-Dichlorophenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2,4-Dimethylphenol	µg/l	1000	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2,4-Dinitrophenol	µg/l	400	11 UJ	11 UJ	11 UJ	11 UJ
2,4-Dinitrotoluene	µg/l	-	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
2,6-Dinitrotoluene	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2-Chloronaphthalene	µg/l	-	0.44 UJ	0.44 UJ	0.45 UJ	0.42 UJ
2-Chlorophenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2-Methylnaphthalene	µg/l	4.7	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
2-Methylphenol	µg/l		0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2-Nitroaniline	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
2-Nitrophenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
3,3'-Dichlorobenzidine	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
3-Nitroaniline	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
4,6-Dinitro-2-methylphenol	µg/l	-	5.5 UJ	5.5 UJ	5.6 UJ	5.3 UJ
4-Bromophenyl-phenylether	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
4-Chloro-3-methylphenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
4-Chloroaniline	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
4-Chlorophenyl-phenylether	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
4-Methylphenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
4-Nitroaniline	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
4-Nitrophenol	µg/l	-	11 UJ	11 UJ	11 UJ	11 UJ
Acenaphthene	µg/l	5.3	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Acenaphthylene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Acetophenone	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
Anthracene	µg/l	3.8	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Atrazine	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
Benzaldehyde	µg/l	-	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
Benzo(a)anthracene	µg/l	0.03	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Benzo(a)pyrene	µg/l	0.0012	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Benzo(b)fluoranthene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Benzo(g,h,i)perylene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Benzo(k)fluoranthene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
bis(2-Chloroethoxy)methane	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
bis(2-Chloroethyl)ether	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
bis(2-Ethylhexyl)phthalate	µg/l	0.6	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
Butylbenzylphthalate	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
Caprolactam	µg/l	-	5.5 UJ	5.5 UJ	5.6 UJ	5.3 UJ
Carbazole	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
Chrysene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Dibenz(a,h)anthracene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Dibenzofuran	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
Diethylphthalate	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
Dimethylphthalate	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
Di-n-butylphthalate	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
Di-n-octylphthalate	µg/l	-	2.2 UJ	2.2 UJ	2.2 UJ	2.1 UJ
Fluoranthene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Fluorene	µg/l	0.54	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Hexachlorobenzene	µg/l	0.00003	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Hexachlorobutadiene	µg/l	0.01	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
Hexachlorocyclopentadiene	µg/l	0.45	5.5 UJ	5.5 UJ	5.6 UJ	5.3 UJ
Hexachloroethane	µg/l	0.6	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
Indeno(1,2,3-cd)pyrene	µg/l	-	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ

Table 13
Analytical Results for Other Parameters from Surface Water Samples
Former Oak Materials Fluorglas Division - John Street

		Location ID:	OS-SW-015	OS-SW-016	OS-SW-017	OS-SW-018
		Sample Date:	10/19/2016	10/19/2016	10/20/2016	10/20/2016
		Sample Depth:	-	-	-	-
		Sample Type:	N	N	N	N
Constituent	**Units**	**NYSDEC Class C Value (Fresh water)**				
Isophorone	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
Naphthalene	µg/l	13	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Nitrobenzene	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
N-Nitroso-di-n-propylamine	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
N-Nitrosodiphenylamine	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
Pentachlorophenol	µg/l	-	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
Phenanthrene	µg/l	5	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Phenol	µg/l	-	0.55 UJ	0.55 UJ	0.56 UJ	0.53 UJ
Pyrene	µg/l	4.6	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
Volatile Organic Compounds (VOCs) by USEPA Method 8260						
1,1,1-Trichloroethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	µg/l		0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/l	5[i]	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	µg/l	5[i]	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	µg/l	33	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	µg/l	-	2 U	2 U	2 U	2 U
1,2-Dibromoethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/l	5[j]	1 U	1 U	1 U	1 U
1,2-Dichloroethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene	µg/l	5[i]	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	µg/l	5[j]	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	µg/l	5[j]	1 U	1 U	1 U	1 U
2-Butanone	µg/l	-	3 U	3 U	3 U	3 U
2-Hexanone	µg/l	-	3 U	3 U	3 U	3 U
4-Methyl-2-pentanone	µg/l	-	3 U	3 U	3 U	3 U
Acetone	µg/l	-	6 U	6 U	6 U	6 U
Benzene	µg/l	10	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	µg/l	-	1 U	1 U	1 U	1 U
Bromodichloromethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	µg/l	-	1 U	1 U	1 U	1 U
Carbon Tetrachloride	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/l	5	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	µg/l	-	2 U	2 U	2 U	2 U
Dibromochloromethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	µg/l	17	0.5 U	0.5 U	0.5 U	0.5 U
Freon 113	µg/l	-	2 U	2 U	2 U	2 U
Isopropylbenzene (Cumene)	µg/l	2.6	1 U	1 U	1 U	1 U
m+p-Xylene	µg/l	65[k]	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Acetate	µg/l	-	1 U	1 U	1 U	1 U
Methyl Tertiary Butyl Ether (MTBE	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	µg/l	-	1 U	1 U	1 U	1 U
Methylene Chloride	µg/l	200	2 U	2 U	2 U	2 U
n-Butylbenzene	µg/l	-	1 U	1 U	1 U	1 U
n-Propylbenzene	µg/l	-	1 U	1 U	1 U	1 U
o-Xylene	µg/l	65[k]	0.5 U	0.5 U	0.5 U	0.5 U
p-Isopropyltoluene	µg/l	-	1 U	1 U	1 U	1 U
sec-Butylbenzene	µg/l	-	1 U	1 U	1 U	1 U

Table 13
Analytical Results for Other Parameters from Surface Water Samples
Former Oak Materials Fluorglas Division - John Street

		Location ID:	OS-SW-015	OS-SW-016	OS-SW-017	OS-SW-018
		Sample Date:	10/19/2016	10/19/2016	10/20/2016	10/20/2016
		Sample Depth:	-	-	-	-
		Sample Type:	N	N	N	N
Constituent	**Units**	**NYSDEC Class C Value (Fresh water)**				
Styrene	µg/l	-	1 U	1 U	1 U	1 U
tert-Butylbenzene	µg/l	-	1 U	1 U	1 U	1 U
Tetrachloroethene	µg/l	1	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	µg/l	100	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	µg/l	40	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	µg/l	-	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (Total)	µg/l	65[k]	0.5 U	0.5 U	0.5 U	0.5 U

Notes and Abbreviations
ng/L - nanograms per liter
mg/L - milligrams per liter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
NYSDEC Ambient Water Quality Standards and Guidance Values for Class C water - most stringent of Types (Freshwater) for Fish survival (A-A), Fish progagation (A-C), Human consumption of fish (H-FC), and Wildlife protection (W)
a - Assumes hardness is less than or equal to 75 mg/L
b - Value for dissolved form used
c - Value for ionic silver used
d - Value for Total PCBs used
e - Value applies to the sum of Aldrin and Dieldrin
f - Value for Chlordane used
g - Value for Endosulfan used
h - Value applies to sum of 4,4'DDD, 4,4'DDE, and 4,4'-DDT
i - Value applies to sum of 1,2,3-, 1,2,4-, and 1,3,5-trichlorbenzene
j - Value applies to sum of 1,2-, 1,3-, and 1,4-dichlorobenzene
Exceedance of Class C value

Table 14
Analytical Results for Other Parameters from Sediment Samples
Former Oak Materials Fluorglas Division - John Street

				Location ID:	OS-SED-017	OS-SED-018
				Sample Date:	10/20/2016	10/20/2016
				Sample Depth:	-	-
				Sample Type:	N	N
Constituent	**Units**	**Class A SGV**	**Class B SGV**	**Class C SGV**		
Metals by USEPA Method 6010B (Mercury by USEPA Method 7470)						
Aluminum	mg/kg	-	-	-	**12500**	**10900**
Antimony	mg/kg	-	-	-	**1.17 J**	**1.1 J**
Arsenic	mg/kg	<10	10 - 33	>33	**8.17**	**6.72**
Barium	mg/kg	-	-	-	**69.4**	**61.2**
Beryllium	mg/kg	-	-	-	**0.46 J**	**0.438 J**
Cadmium	mg/kg	<1	1 - 5	>5	**0.596 J**	**0.69 J**
Calcium	mg/kg	-	-	-	**6330**	**16900**
Chromium, Total	mg/kg	<43	43 - 110	>110	**17.5**	**13.2**
Cobalt	mg/kg	-	-	-	**10.6**	**8.87**
Copper	mg/kg	<32	32 - 150	>150	**43.2**	**28.7**
Iron	mg/kg	-	-	-	**33700**	**30400**
Lead	mg/kg	<36	36 - 130	>130	**65.9**	**36.5**
Magnesium	mg/kg	-	-	-	**7900**	**7650**
Manganese	mg/kg	-	-	-	**1350**	**757**
Mercury	mg/kg	<0.2	0.2 - 1	>1	**0.0504 J**	**0.0117 J**
Nickel	mg/kg	<23	23 - 49	>49	**23.3**	**18.8**
Potassium	mg/kg	-	-	-	**1460**	**1240**
Selenium	mg/kg	-	-	-	0.827 U	0.86 U
Silver	mg/kg	<1	1 - 2.2	>2.2	**0.622 J**	**0.378 J**
Sodium	mg/kg	-	-	-	88.6 U	72.4 U
Thallium	mg/kg	-	-	-	**3.55 J**	**2.25 J**
Vanadium	mg/kg	-	-	-	**20**	**16.5**
Zinc	mg/kg	<120	120 - 460	>460	**110**	**118**
Total Cyanide by USEPA Method 9010						
Total Cyanide (water)	mg/kg	-	-	-	0.22 U	0.21 U
Polychlorined Biphenyls (PCBs) by USEPA Method 8082						
Aroclor-1016	µg/kg	100[a]	-	-	4.4 U	4.2 U
Aroclor-1221	µg/kg	100[a]	-	-	5.6 U	5.3 U
Aroclor-1232	µg/kg	100[a]	-	-	9.8 U	9.3 U
Aroclor-1242	µg/kg	100[a]	-	-	4 U	3.8 U
Aroclor-1248	µg/kg	100[a]	-	-	4 U	**8.1 J**
Aroclor-1254	µg/kg	100[a]	-	-	4 U	3.8 U
Aroclor-1260	µg/kg	100[a]	-	-	6 U	5.7 U
Aroclor-1262	µg/kg	100[a]	-	-	4 U	3.8 U
Aroclor-1268	µg/kg	100[a]	-	-	4 U	3.8 U
Total PCBs (sum of Aroclors)	µg/kg	100			nd	**8.1 J**
Pesticides by USEPA Method 8081						
Aldrin	µg/kg	-	-	-	0.21 U	0.19 U
Alpha BHC	µg/kg	-	-	-	0.21 U	0.19 U
Alpha Chlordane	µg/kg	68[b]	-	-	0.21 U	0.19 U
Beta BHC	µg/kg	-	-	-	0.37 U	0.34 U
Delta BHC	µg/kg	-	-	-	0.55 U	0.52 U
Dieldrin	µg/kg	180	-	-	0.41 U	0.38 U
Endosulfan I	µg/kg	1[c]	-	-	0.27 U	0.25 U
Endosulfan II	µg/kg	1[c]	-	-	0.41 U	0.38 U
Endosulfan Sulfate	µg/kg	1[c]	-	-	0.41 U	0.38 U
Endrin	µg/kg	90	-	-	0.41 U	0.38 U
Endrin Aldehyde	µg/kg	-	-	-	0.41 U	0.38 U
Endrin Ketone	µg/kg	-	-	-	0.74 U	0.69 U
Gamma Chlordane	µg/kg	68[b]	-	-	0.21 U	0.19 U
Gamma BHC - Lindane	µg/kg	47	-	-	0.21 U	**0.29 J**
Heptachlor	µg/kg	75	-	-	0.21 U	0.19 U
Heptachlor Epoxide	µg/kg	15	-	-	0.21 U	0.19 U
Methoxychlor	µg/kg	59	-	-	2.1 U	1.9 U
p,p-DDD	µg/kg	44[d]	-	-	0.41 U	0.38 U
p,p-DDE	µg/kg	44[d]	-	-	0.41 U	0.38 U
p,p-DDT	µg/kg	44[d]	-	-	**0.72 J**	**0.75 J**
Toxaphene	µg/kg	6	-	-	17 U	16 U

Table 14
Analytical Results for Other Parameters from Sediment Samples
Former Oak Materials Fluorglas Division - John Street

				Location ID:	OS-SED-017	OS-SED-018
				Sample Date:	10/20/2016	10/20/2016
				Sample Depth:	-	-
				Sample Type:	N	N
Constituent	**Units**	**Class A SGV**	**Class B SGV**	**Class C SGV**		
Semivolatile Organic Compounds (SVOCs) by USEPA Method 8270						
1,1'-Biphenyl	µg/kg	-	-	-	21 U	19 U
1,2,4,5-Tetrachlorobenzene	µg/kg	3000	-	-	21 U	19 U
1,4-Dioxane	µg/kg	-	-	-	120 U	120 U
2,2'-oxybis(1-Chloropropane)	µg/kg	-	-	-	21 U	19 U
2,3,4,6-Tetrachlorophenol	µg/kg	-	-	-	83 U	77 U
2,4,5-Trichlorophenol	µg/kg	-	-	-	21 U	19 U
2,4,6-Trichlorophenol	µg/kg	-	-	-	21 U	19 U
2,4-Dichlorophenol	µg/kg	-	-	-	21 U	19 U
2,4-Dimethylphenol	µg/kg	-	-	-	21 U	19 U
2,4-Dinitrophenol	µg/kg	-	-	-	370 U	350 U
2,4-Dinitrotoluene	µg/kg	-	-	-	83 U	77 U
2,6-Dinitrotoluene	µg/kg	-	-	-	21 U	19 U
2-Chloronaphthalene	µg/kg	-	-	-	8 U	8 U
2-Chlorophenol	µg/kg	-	-	-	21 U	19 U
2-Methylnaphthalene	µg/kg	-	-	-	**5 J**	4 U
2-Methylphenol	µg/kg	-	-	-	21 U	19 U
2-Nitroaniline	µg/kg	-	-	-	21 U	19 U
2-Nitrophenol	µg/kg	-	-	-	21 U	19 U
3,3'-Dichlorobenzidine	µg/kg	-	-	-	120 U	120 U
3-Nitroaniline	µg/kg	-	-	-	83 U	77 U
4,6-Dinitro-2-methylphenol	µg/kg	-	-	-	210 U	190 U
4-Bromophenyl-phenylether	µg/kg	-	-	-	21 U	19 U
4-Chloro-3-methylphenol	µg/kg	-	-	-	21 U	19 U
4-Chloroaniline	µg/kg	-	-	-	41 U	39 U
4-Chlorophenyl-phenylether	µg/kg	-	-	-	21 U	19 U
4-Methylphenol	µg/kg	-	-	-	21 U	19 U
4-Nitroaniline	µg/kg	-	-	-	83 U	77 U
4-Nitrophenol	µg/kg	-	-	-	210 U	190 U
Acenaphthene	µg/kg	-	-	-	**4 J**	**4 J**
Acenaphthylene	µg/kg	-	-	-	**6 J**	**5 J**
Acetophenone	µg/kg	-	-	-	21 U	19 U
Anthracene	µg/kg	-	-	-	**15 J**	**13 J**
Atrazine	µg/kg	-	-	-	41 U	39 U
Benzaldehyde	µg/kg	-	-	-	83 U	77 U
Benzo(a)anthracene	µg/kg	-	-	-	**78**	**55**
Benzo(a)pyrene	µg/kg	-	-	-	**92**	**69**
Benzo(b)fluoranthene	µg/kg	-	-	-	**170**	**120**
Benzo(g,h,i)perylene	µg/kg	-	-	-	**87**	**60**
Benzo(k)fluoranthene	µg/kg	-	-	-	**59**	**47**
bis(2-Chloroethoxy)methane	µg/kg	-	-	-	21 U	19 U
bis(2-Chloroethyl)ether	µg/kg	-	-	-	21 U	19 U
bis(2-Ethylhexyl)phthalate	µg/kg	360000	-	-	83 U	77 U
Butylbenzylphthalate	µg/kg	-	-	-	83 U	77 U
Caprolactam	µg/kg	-	-	-	41 U	39 U
Carbazole	µg/kg	-	-	-	21 U	19 U
Chrysene	µg/kg	-	-	-	**120**	**89**
Dibenz(a,h)anthracene	µg/kg	-	-	-	**22**	**13 J**
Dibenzofuran	µg/kg	-	-	-	21 U	19 U
Diethylphthalate	µg/kg	-	-	-	83 U	77 U
Dimethylphthalate	µg/kg	-	-	-	83 U	77 U
Di-n-butylphthalate	µg/kg	-	-	-	83 U	77 U
Di-n-octylphthalate	µg/kg	-	-	-	83 U	77 U
Fluoranthene	µg/kg	-	-	-	**230**	**160**
Fluorene	µg/kg	-	-	-	**5 J**	**5 J**
Hexachlorobenzene	µg/kg	-	-	-	4 U	4 U
Hexachlorobutadiene	µg/kg	1200	-	-	21 U	19 U
Hexachlorocyclopentadiene	µg/kg	810	-	-	210 U	190 U
Hexachloroethane	µg/kg	-	-	-	41 U	39 U
Indeno(1,2,3-cd)pyrene	µg/kg	-	-	-	**72**	**51**
Isophorone	µg/kg	-	-	-	21 U	19 U
Naphthalene	µg/kg	-	-	-	**6 J**	4 U
Nitrobenzene	µg/kg	-	-	-	21 U	19 U

Table 14
Analytical Results for Other Parameters from Sediment Samples
Former Oak Materials Fluorglas Division - John Street

				Location ID:	OS-SED-017	OS-SED-018
				Sample Date:	10/20/2016	10/20/2016
				Sample Depth:	-	-
				Sample Type:	N	N
Constituent	**Units**	**Class A SGV**	**Class B SGV**	**Class C SGV**		
N-Nitroso-di-n-propylamine	µg/kg	-	-	-	21 U	19 U
N-Nitrosodiphenylamine	µg/kg	-	-	-	21 U	19 U
Pentachlorophenol	µg/kg	14000	-	-	41 U	39 U
Phenanthrene	µg/kg	-	-	-	**90**	**78**
Phenol	µg/kg	-	-	-	21 U	19 U
Pyrene	µg/kg	-	-	-	**180**	**140**
Total PAH (sum of individual)	µg/kg	4000			1241	909
Volatile Organic Compounds (VOCs) by USEPA Method 8260						
1,1,1-Trichloroethane	µg/kg	1900[e]	-	-	1 U	1 U
1,1,2,2-Tetrachloroethane	µg/kg	2800	-	-	1 U	1 U
1,1,2-Trichloroethane	µg/kg	1900[e]	-	-	1 U	1 U
1,1-Dichloroethane	µg/kg	-	-	-	1 U	1 U
1,1-Dichloroethene	µg/kg	520	-	-	1 U	1 U
1,2,3-Trichlorobenzene	µg/kg	230	-	-	1 U	1 U
1,2,4-Trichlorobenzene	µg/kg	35000	-	-	1 U	1 U
1,2,4-Trimethylbenzene	µg/kg	3400	-	-	1 U	1 U
1,2-Dibromo-3-chloropropane	µg/kg	-	-	-	2 U	2 U
1,2-Dibromoethane	µg/kg	-	-	-	1 U	1 U
1,2-Dichlorobenzene	µg/kg	280	-	-	1 U	1 U
1,2-Dichloroethane	µg/kg	-	-	-	1 U	1 U
1,2-Dichloropropane	µg/kg	-	-	-	1 U	1 U
1,3,5-Trimethylbenzene	µg/kg	3400[f]	-	-	1 U	1 U
1,3-Dichlorobenzene	µg/kg	1800	-	-	1 U	1 U
1,4-Dichlorobenzene	µg/kg	720	-	-	1 U	1 U
2-Butanone	µg/kg	-	-	-	**6 J**	5 U
2-Hexanone	µg/kg	-	-	-	4 U	3 U
4-Methyl-2-pentanone	µg/kg	-	-	-	**7 J**	**7 J**
Acetone	µg/kg	-	-	-	**72**	**54**
Benzene	µg/kg	530	-	-	0.6 U	0.6 U
Bromochloromethane	µg/kg	-	-	-	1 U	1 U
Bromodichloromethane	µg/kg	-	-	-	1 U	1 U
Bromoform	µg/kg	-	-	-	1 U	1 U
Bromomethane	µg/kg	-	-	-	2 U	2 U
Carbon Disulfide	µg/kg	-	-	-	**1 J**	**2 J**
Carbon Tetrachloride	µg/kg	1070	-	-	1 U	1 U
Chlorobenzene	µg/kg	200	-	-	1 U	1 U
Chloroethane	µg/kg	-	-	-	2 U	2 U
Chloroform	µg/kg	-	-	-	1 U	1 U
Chloromethane	µg/kg	-	-	-	2 U	2 U
cis-1,2-Dichloroethene	µg/kg	1200[g]	-	-	1 U	1 U
cis-1,3-Dichloropropene	µg/kg	-	-	-	1 U	1 U
Cyclohexane	µg/kg	-	-	-	1 U	1 U
Dibromochloromethane	µg/kg	-	-	-	1 U	1 U
Dichlorodifluoromethane	µg/kg	-	-	-	2 U	2 U
Ethylbenzene	µg/kg	430	-	-	1 U	1 U
Freon 113	µg/kg	-	-	-	2 U	2 U
Isopropylbenzene (Cumene)	µg/kg	210	-	-	1 U	1 U
m+p-Xylene	µg/kg	480[h]	-	-	1 U	1 U
Methyl Acetate	µg/kg	-	-	-	2 U	2 U
Methyl Tertiary Butyl Ether (MTBE	µg/kg	-	-	-	0.6 U	0.6 U
Methylcyclohexane	µg/kg	-	-	-	1 U	1 U
Methylene Chloride	µg/kg	-	-	-	2 U	2 U
n-Butylbenzene	µg/kg	-	-	-	1 U	1 U
n-Propylbenzene	µg/kg	-	-	-	1 U	1 U
o-Xylene	µg/kg	820	-	-	1 U	1 U
p-Isopropyltoluene	µg/kg	-	-	-	1 U	1 U
sec-Butylbenzene	µg/kg	-	-	-	1 U	1 U
Styrene	µg/kg	-	-	-	1 U	1 U
tert-Butylbenzene	µg/kg	-	-	-	1 U	1 U
Tetrachloroethene	µg/kg	16000	-	-	1 U	1 U
Toluene	µg/kg	930	-	-	1 U	1 U
trans-1,2-Dichloroethene	µg/kg	1200	-	-	1 U	1 U
trans-1,3-Dichloropropene	µg/kg	-	-	-	1 U	1 U

Table 14
Analytical Results for Other Parameters from Sediment Samples
Former Oak Materials Fluorglas Division - John Street

				Location ID:	OS-SED-017	OS-SED-018
				Sample Date:	10/20/2016	10/20/2016
				Sample Depth:	-	-
				Sample Type:	N	N
Constituent	**Units**	**Class A SGV**	**Class B SGV**	**Class C SGV**		
Trichloroethene	µg/kg	1800	-	-	1 U	1 U
Trichlorofluoromethane	µg/kg	-	-	-	2 U	2 U
Vinyl Chloride	µg/kg	-	-	-	1 U	1 U
Xylene (Total)	µg/kg	590	-	-	1 U	1 U

Notes and Abbreviations
µg/kg - microgram per kilogram
mg/kg - milligrams per kilogram
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
na - Sample not analyzed for this parameter
Bold value indicates detected value
Shaded value indicates value equal to, or greater than, standard or guidance
SGV - Sediment Guidance Value
a - Aroclor concentrations were screened against the guidance vale for Total PCBs since no values exists for the Aroclors.
b - SGV for Chlordane used
c - SGV for Endosulfan used
d - SGV for sum of p,p'-DDT, p,p'-DDE, and p,p'-DDD
e - SGV for trichloroethane (sum of isomers) used
f - SGV for 1,2,4-trimethylbenzene used
g - SGV for trans-1,2-dichloroethene isomer used
h - SGV for m-xylene used since lower than SGV for p-xylene
Sediment Guidance Values from NYSDEC "Screening and Assessment of Contaminated Sediment", June 24, 2014

Class A
Class B
Class C

Table 15
Analytical Results for VOCs from Soil Vapor Samples
Former Oak Materials Fluorglas Division - John Street

Location ID:		AA-WSW	SV-01	SV-01	SV-03	SV-06	SV-07	SV-08
Sample Start Date:		12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016
Sample End Date:		12/8/2016	12/8/2016	12/8/2016	12/8/2016	12/8/2016	12/8/2016	12/8/2016
Sample Type:		N	N	FD	N	N	N	N
Constituent	**Units**							
Volatile Organic Compounds (VOCs) by USEPA Method TO-15								
1,1,1,2-Tetrachloroethane	μg/m^3	1.4 U	14 U	14 U	1.3 U	1.4 U	1.4 U	1.4 U
1,1,1-Trichloroethane	μg/m^3	1.1 U	**3700**	**3600**	**830**	**170**	**810**	1.1 U
1,1,2,2-Tetrachloroethane	μg/m^3	1.4 U	14 U	14 U	1.3 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	μg/m^3	1.1 U	11 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	μg/m^3	0.81 U	**11 J**	**11 J**	0.78 U	**1.3 J**	**0.88 J**	0.81 U
1,1-Dichloroethene	μg/m^3	0.79 U	7.9 U	7.9 U	0.77 U	0.79 U	0.79 U	0.79 U
1,2,3-Trichloropropane	μg/m^3	1.2 U	12 U	12 U	1.2 U	1.2 U	1.2 U	1.2 U
1,2,4-Trimethylbenzene	μg/m^3	0.98 U	9.8 U	9.8 U	0.95 U	0.98 U	0.98 U	0.98 U
1,2-Dibromoethane	μg/m^3	1.5 U	15 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichlorobenzene	μg/m^3	1.2 U	12 U	12 U	1.2 U	1.2 U	1.2 U	1.2 U
1,2-Dichloroethane	μg/m^3	0.81 U	8.1 U	8.1 U	0.78 U	0.81 U	0.81 U	0.81 U
1,2-Dichloropropane	μg/m^3	0.92 U	9.2 U	9.2 U	0.89 U	0.92 U	0.92 U	0.92 U
1,3,5-Trimethylbenzene	μg/m^3	0.98 U	9.8 U	9.8 U	0.95 U	0.98 U	0.98 U	0.98 U
1,3-Butadiene	μg/m^3	0.88 U	8.8 U	8.8 U	0.88 U	0.88 U	0.88 U	0.88 U
1,3-Dichlorobenzene	μg/m^3	1.2 U	12 U	12 U	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	μg/m^3	1.2 U	12 U	12 U	1.2 U	1.2 U	1.2 U	1.2 U
2-Butanone	μg/m^3	1.5 U	15 U	15 U	**2.7 J**	**1.8 J**	**1.5 J**	**2.4 J**
2-Hexanone	μg/m^3	2.0 U	20 U	20 U	2.0 U	**2.1 J**	2.0 U	2.0 U
3-Chloropropene	μg/m^3	0.63 U	6.3 U	6.3 U	0.63 U	0.63 U	0.63 U	0.63 U
4-Ethyltoluene	μg/m^3	0.98 U	9.8 U	9.8 U	0.95 U	0.98 U	0.98 U	0.98 U
4-Methyl-2-pentanone	μg/m^3	2.0 U	20 U	20 U	2.0 U	2.0 U	2.0 U	2.0 U
Acetone	μg/m^3	**7.7**	12 U	12 U	**13**	**6.7**	**9.1**	**10**
Benzene	μg/m^3	**1.0 J**	6.4 U	6.4 U	**2.1 J**	**1.5 J**	**1.5 J**	**1.5 J**
Bromobenzene	μg/m^3	1.3 U	13 U	13 U	1.3 U	1.3 U	1.3 U	1.3 U
Bromodichloromethane	μg/m^3	1.3 U	13 U	13 U	1.3 U	1.3 U	1.3 U	1.3 U
Bromoform	μg/m^3	2.1 U	21 U	21 U	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	μg/m^3	0.78 U	7.8 U	7.8 U	0.78 U	0.78 U	0.78 U	0.78 U
Carbon Disulfide	μg/m^3	1.6 U	16 U	16 U	1.6 U	1.6 U	1.6 U	1.6 U
Carbon Tetrachloride	μg/m^3	1.3 U	13 U	13 U	1.3 U	1.3 U	1.3 U	1.3 U
Chlorobenzene	μg/m^3	0.92 U	9.2 U	9.2 U	0.92 U	0.92 U	0.92 U	0.92 U
Chlorodifluoromethane	μg/m^3	**1.1 J**	7.1 U	7.1 U	0.71 U	**0.91 J**	0.71 U	0.71 U
Chloroethane	μg/m^3	0.53 U	5.3 U	5.3 U	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	μg/m^3	0.98 U	**29 J**	**31 J**	**15**	0.98 U	0.98 U	0.98 U
Chloromethane	μg/m^3	0.41 U	4.1 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	μg/m^3	0.79 U	7.9 U	7.9 U	0.77 U	0.79 U	0.79 U	0.79 U
cis-1,3-Dichloropropene	μg/m^3	0.91 U	9.1 U	9.1 U	0.88 U	0.91 U	0.91 U	0.91 U
Cumene	μg/m^3	0.98 U	9.8 U	9.8 U	0.98 U	0.98 U	0.98 U	0.98 U
Dibromochloromethane	μg/m^3	1.7 U	17 U	17 U	1.7 U	1.7 U	1.7 U	1.7 U
Dibromomethane	μg/m^3	1.4 U	14 U	14 U	1.4 U	1.4 U	1.4 U	1.4 U
Dichlorodifluoromethane	μg/m^3	**3.2 J**	9.9 U	9.9 U	**3.2 J**	**3.3 J**	**3.8 J**	2.8 J
Dichlorofluoromethane	μg/m^3	0.84 U	8.4 U	8.4 U	0.81 U	0.84 U	0.84 U	0.84 U
Ethylbenzene	μg/m^3	0.87 U	8.7 U	8.7 U	0.84 U	**2.0 J**	0.87 U	0.87 U
Freon 113	μg/m^3	3.8 U	38 U	38 U	3.7 U	3.8 U	3.8 U	3.8 U
Freon 114	μg/m^3	1.4 U	14 U	14 U	1.4 U	1.4 U	1.4 U	1.4 U
Heptane	μg/m^3	0.82 U	**12 J**	**12 J**	**1.6 J**	**1.6 J**	**1.1 J**	0.82 U
Hexachloroethane	μg/m^3	1.9 U	19 U	19 U	1.9 U	1.9 U	1.9 U	1.9 U
Hexane	μg/m^3	**0.84 J**	**30 J**	**28 J**	**4.1**	**1.1 J**	**1.1 J**	1.0 J

Table 15
Analytical Results for VOCs from Soil Vapor Samples
Former Oak Materials Fluorglas Division - John Street

	Location ID:	AA-WSW	SV-01	SV-01	SV-03	SV-06	SV-07	SV-08
	Sample Start Date:	12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016	12/7/2016
	Sample End Date:	12/8/2016	12/8/2016	12/8/2016	12/8/2016	12/8/2016	12/8/2016	12/8/2016
	Sample Type:	N	N	FD	N	N	N	N
Constituent	**Units**							
Isooctane	μg/m^3	0.93 U	9.3 U	9.3 U	0.90 U	**1.2 J**	0.93 U	0.93 U
m/p-Xylene	μg/m^3	**1.0 J**	8.7 U	8.7 U	**1.1 J**	**4.7**	**1.2 J**	**1.3 J**
Methyl t-Butyl Ether	μg/m^3	0.72 U	7.2 U	7.2 U	0.70 U	0.72 U	0.72 U	0.72 U
Methylene Chloride	μg/m^3	**1.0 J**	6.9 U	6.9 U	**0.91 J**	0.69 U	0.69 U	0.69 U
Octane	μg/m^3	0.93 U	9.3 U	9.3 U	0.90 U	**1.6 J**	**1.1 J**	0.93 U
o-Xylene	μg/m^3	0.87 U	8.7 U	8.7 U	0.84 U	**2.6 J**	0.87 U	0.87 U
Pentane	μg/m^3	**1.6 J**	**28 J**	**30**	**18**	**1.9 J**	**9.4**	**1.4 J**
Styrene	μg/m^3	0.85 U	8.5 U	8.5 U	0.82 U	0.85 U	0.85 U	0.85 U
Tetrachloroethene	μg/m^3	1.4 U	14 U	14 U	1.3 U	1.4 U	1.4 U	1.4 U
Toluene	μg/m^3	**3.8**	7.5 U	7.5 U	**2. 3 J**	**3.2 J**	**2. 3 J**	**2.4 J**
trans-1,2-Dichloroethene	μg/m^3	0.79 U	7.9 U	7.9 U	0.77 U	0.79 U	0.79 U	0.79 U
trans-1,3-Dichloropropene	μg/m^3	0.91 U	9.1 U	9.1 U	0.88 U	0.91 U	0.91 U	0.91 U
Trichloroethene	μg/m^3	1.1 U	**3500**	**3500**	**210**	**10**	**43**	**2.5 J**
Trichlorofluoromethane	μg/m^3	**1.6 J**	11 U	11 U	**4.1 J**	**1.9 J**	**2.1 J**	**1.6 J**
Vinyl Chloride	μg/m^3	0.51 U	5.1 U	5.1 U	0.49 U	0.51 U	0.51 U	0.51 U

Notes and Abbreviations
μg/m3 - micrograms per cubic meter
U - Compound not detected
J - Estimated value
N - Primary sample
FD - Field duplicate sample
Bold value indicates detected value

Table 16
Summary of Analytical Methods
Former Oak Materials Fluorglas Division - John Street

Analytical Parameter	Matrix	Method Number	Method Title	Method Reference
PFAS	Aqueous/Non-Aqueous	537 (modified)	Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) Version 1.1	1
VOCs	Aqueous/Non-Aqueous	8260C	Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry	2
SVOCs	Aqueous/Non-Aqueous	8270D	Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry	2
Pest	Aqueous/Non-Aqueous	8081B	Organochlorine Pesticides by Gas Chromatography	2
PCBs	Aqueous/Non-Aqueous	8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	2
Metals	Aqueous/Non-Aqueous	6010C	Inductively Coupled Plasma-Optical Emission Spectrometry (ICP-AES)	2
Mercury	Aqueous	7470A	Mercury in Liquid Waste (Manual Cold-Vapor Technique)	2
Mercury	Non-Aqueous	7471B	Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)	2
Cyanide	Aqueous/Non-Aqueous	9012B	Total and Amenable Cyanide (Automated Colorimetric, With Off-Line Distillation)	2
TOC	Non-Aqueous	Lloyd Kahn (modified)	Determination of Total Organic Carbon in Sediment (Lloyd Kahn Method) July 27, 1988	NA
TOC	Aqueous	5310 C-2000	Persulfate-Ultraviolet or Heated-Persulfate Oxidation Method	3
pH	Non-Aqueous	9045D	Soil and Waste pH	2
pH	Aqueous	4500 H/B-2000	4500-H+ PH VALUE*#(42)	3
VOCs (in Air)	Air	TO-15	Determination of Volatile Organic Compounds In Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry	4

Notes and Abbreviations

1 - Methods for the Determination of Organic Compounds in Drinking Water – Supplement III
2 - USEPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846)
3 - Standard Methods for the Examination of Water and Wastewater, 21st Edition, 2005
4 - Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition 1997, EPA/625/R-96/010B

PFAS - Per- and Polyfluoroalkyl Substances
VOCs - Volatile Organic Compounds
SVOCs - Semivolatile Organic Compounds
Pesticides - Pesticide Organic Compounds
PCBs - Polychlorinated Biphenyl Compounds
TOC - Total Organic Carbon

Table 17
Investigative Derived Wastes

Drum Number	Contents	Accumulation Start Date
John Street		
1	Water	8/4/2016
2	PPE and Sampling Materials	8/8/2016
3	Soil Cuttings	8/8/2016
4	Water	8/9/2016
5	PPE	8/16/2016
6	Water	8/18/2016
7	PPE and Sampling Materials	8/17/2016
8	PPE and Sampling Materials	8/25/2016
9	Water	8/26/2016
10	Water	10/5/2016
11	Water	10/1/2016
12	PPE	10/7/2016
13	Water	10/13/2016
14	PPE	10/11/2016
15	Sampling Materials	10/18/2016
16	Soil Cuttings	10/24/2016
17	Water	10/26/2016
18	Soil Cuttings	10/24/2016
19	Soil Cuttings	10/26/2016
20	Water	10/27/2016
21	Soil Cuttings	10/28/2016
22	Water	10/31/2016
23	Soil Cuttings	11/2/2016
24	Soil Cuttings	11/2/2016
25	Water	11/2/2016
26	Water	11/3/2016
27	Soil Cuttings	11/2/2016
28	Soil Cuttings	11/7/2016
29	Soil Cuttings	11/8/2016
30	Soil Cuttings	11/9/2016
31	Drilling Mud	11/10/2016
32	Drilling Mud	11/14/2016
33	Drilling Mud	11/14/2016
34	Drilling Mud	11/15/2016
35	Drilling Mud	11/15/2016
36	Soil Cuttings	11/15/2016
37	Soil Cuttings	11/16/2016
38	Drilling Mud	11/16/2016
39	Drilling Mud	11/16/2016
40	Drilling Mud	11/16/2016
41	Drilling Mud	11/17/2016
42	Soil Cuttings	11/18/2016
43	Water	11/18/2016
44	Soil Cuttings	11/28/2016
45	Soil Cuttings	11/29/2016
46	PPE	11/30/2016
47	Soil Cuttings	11/30/2016
48	Soil Cuttings	11/30/2016
49	Soil Cuttings	11/30/2016
50	Soil Cuttings	11/30/2016
51	Soil Cuttings	11/29/2016
52	PPE and Sampling Materials	12/1/2016
53	Soil Cuttings	11/29/2016
54	Water	11/17/2016
55	Water	12/1/2016
56	Water	12/8/2016

Table 17
Investigative Derived Wastes

Drum Number	Contents	Accumulation Start Date
John Street		
57	Water	12/8/2016
58	Decon Pad Plastic	12/14/2016
59	Decon Pad - Residual Soil/ Water	12/14/2016
60	Decon Pad - Residual Soil/ Water	12/14/2016
61	Water	12/14/2016
62	Water	12/15/2016
63	PPE	12/14/2016
64	Water	12/15/2016
65	Water	1/5/2017
66	Water	1/10/2017
67	Water	10/26/2016
68	Asphalt and Concrete from Well Repairs	4/19/2017
69	Asphalt and Concrete from Well Repairs	4/19/2017

Notes:

a) Water investigative derived waste (IDW) consists of a combination of decontamination water, monitoring well development water and purged groundwater from Advanced Profiling System (APS) and monitoring well sampling activities.

b) Personal Protective Equipment (PPE) IDW consists of nitrile gloves, high-density polyethylene (HDPE) bags for soil sampling, soil acetate liners, paper towels, HDPE tubing and/or soil sampling materials (i.e., items which came in contact with soil or groundwater).

Table 18
Areas of Potential Concern (AOPC) - Descriptions and Recommendations
Former Oak Materials Fluorglas Division - John Street

Location and Description	Recommendation
AOPC-01: Area-Wide Soil	
Copper was detected at JS-B-005 above the Commercial Use SCO in surface soil. This location is south of the footprint of the former John Street building. The extent appears to be limited since copper concentrations were less than the Residential Use SCO in near surface soil at JS-B-005 and all other on- and off-site surface and near surface soil samples. Dimensions: Estimated to be less than 10 ft by 10 ft by 0.5 ft based on available information. Source is unknown.	Collect additional soil samples during the RI to delineate the vertical and horizontal extent of copper impacts in soil.
Nickel was detected at JS-B-003 above the Commercial Use SCO in near surface soil. This location is within the footprint of the former John Street building. The extent appears to be limited since the nickel concentration was less than the Residential Use SCO in surface soil at JS-B-003 and all other on- and off-site soil samples. Dimensions: Estimated to be less than 10 ft by 10 ft by 0.5 ft based on available information. Source is unknown.	
Copper was detected at JS-B-002 above the Commercial Use SCO in soil at 6 to 8 feet bgs. This location is within the footprint of the former John Street building. The extent appears to be limited since the copper concentration was less than the Residential Use SCO at 9 to 10 and 60 to 64 ft bgs at JS-B-005 and all other on- and off-site subsurface soil samples. Dimensions: Estimated to be less than 10 ft by 10 ft by 2 ft based on available information, Source is unknown.	
PFOA concentrations ranged from below the detection to 9.8 µg/kg in on-site soil and 5.1 µg/kg in off-site soil. PFOA was detected at one or more depth intervals at all on-site and off-site sampling locations, but with no exceedances of the USEPA screening value of 1,000 µg/kg for the sum of PFOA plus PFOS. Dimensions: 4.7 acres (bounded by detections in off-site boring locations OS-MW-024, -025, -026, -027, and -028). Source is unknown.	Collect additional soil samples during the IRM Pre-Design Investigation and RI to delineate the vertical and horizontal PFAS in surface, near surface and subsurface soil. Collect surface and near-surface soil samples beneath the roof driplines at off-site locations near the John Street property.
TCE was detected in on-site soil above the Industrial Use SCO at JS-B-003 at 15 to 17 ft bgs and above the Commercial Use SCO at JS-B-001 at 18 to 19 and 60 to 64 ft bgs. TCE and several other CVOCs were detected in groundwater above NYSDEC GA criteria and above the Protection of Groundwater SCO in soil samples from JS-B-001, -002, -003, -006, -007, -008, -009, and -012. Dimensions: Less than 0.3 acres (bounded by borings JS-B-001, -002, -003, -006, -008, -009, and -012). Source is unknown.	Collect additional soil samples from soil borings during IRM Pre-Design Investigation and RI to delineate the extent of CVOC impacts to soil.
Two PAHs, benzo(a)pyrene and dibenzo(a,h)anthracene, were detected above the Industrial Use SCO for soil in one near-surface soil sample JS-B-004 (2 to 12-inch) and two PAHs, benzo(a)anthracene and benzo(b)fluoranthene, were detected above the Commercial Use SCO in the same soil sample. This location is near the Lyman Street in an area that has been used for parking and may be related to asphalt and/or automotive fuel or emissions. Dimensions: Estimated to be less than 10 ft by 10 ft by 1 ft based on available information. This location is near the Lyman Street in an area that has been used for parking and may be related to asphalt and/or automotive fuel or emissions.	No further action
No exceedances of cyanide, PCBs, pesticides, and metals (except copper and nickel) observed in on- or off-site soil samples.	No further action
AOPC-02: Area-Wide Groundwater	
PFOA has been detected in all groundwater samples with concentrations ranging form 130 ng/L to 6400 ng/L. Dimensions: 5.8 acres (bounded by detections in off-site monitoring well locations OS-MW-024, -025, -026, -027,-028, -030 and -031. Possibly related to use of PFAS at the former John St facility.	Install shallow bedrock and additional overburden monitoring wells during the RI and collect groundwater samples to delineate the vertical and horizontal extent of PFAS.
CVOCs including TCE and 1,1,1-TCA have been detected in on-site and off-site groundwater at concentrations that exceed NYS GA criteria. Dimensions: Approximately 1.3 acres in shallow groundwater (bounded by the site and monitoring wells OS-MW-024A and OS-MW-031A); approximately 2.2 acres in overburden groundwater below the silt/clay layer (bounded by the site and monitoring wells OS-MW-024B, -25B, -025C, -026B, and -031B). Source is unknown.	Install shallow bedrock and additional overburden monitoring wells during the RI and collect groundwater samples to delineate the vertical and horizontal extent of PFAS. Perform Soil Vapor Intrusion (SVI) evaluations at properties located downgradient of the John St site. Select and implement an Interim Remedial Measure to reduce migration of CVOCs in shallow groundwater.
1,4-dioxane was detected in two on-site groundwater samples at JS-APS-001 and JS-APS-004 at low concentrations (2 J and 1 J µg/L). Dimensions: 1,4-dioxane appears to be confined to two locations on site. Dimensions: Detected in an area of less than 0.5 acres (bounded by the site). 1,4-dioxane has been used as a stabilizer in 1,1,1-TCA, which was also detected in groundwater at these locations	Collect additional groundwater samples from existing and new monitoring wells during the RI and analyze by selective ion monitoring to achieve lower detection limits.
Selenium was detected in groundwater samples from JS-APS-001 and JS-MW-001A at concentrations (0.0161 J and 0.0345 J mg/L, respectively) above the NYS GA standard of 0.01 mg/L. Cadmium was detected in one groundwater sample from JS-APS-001 at 0.0057 J mg/L above the NYS GA standard of 0.005 mg/L but was not detected the groundwater samples from JS-MW-001A, B, or C.	Groundwater samples collected from existing and new overburden and bedrock monitoring wells will be analyzed for metals during the RI.
Iron, manganese and sodium were detected in groundwater samples from most on-site and off-site APS points and monitoring wells at concentrations above NYSDEC GA standards. Iron and manganese are naturally occurring metals that are commonly found in groundwater. Sodium is a naturally occurring metal and its use in road salt commonly contributes to its occurrence in groundwater. are naturally Dimensions: Not estimated. This areas is assumed to be naturally occurring.	No further action

Table 18

Areas of Potential Concern (AOPC) - Descriptions and Recommendations

Former Oak Materials Fluorglas Division - John Street

Location and Description	Recommendation
Barium, chromium, magnesium and lead were detected in groundwater from off-site monitoring wells OS-MW-030B and OS-MW-031B at concentrations above NYS GA standards. No exceedances were observed in groundwater samples from on-site groundwater samples Dimensions: Not estimated. These metals are ssumed to be naturally occurring and not related to the site.	No further action
Cyanide, PCBs, Pesticides, SVOCs, and metals (except barium, cadmium, chromium, iron, magnesium, manganese, and sodium) were not detected above NYS GA standards or guidance in any of the groundwater samples.	No further action
AOPC-03: Municipal Sewer System	
The municipal sewers have been identified as a possible source of PFAS or CVOC contamination to soil. Dimensions: No information at this time. The source would be potentially leaking sewers.	Collect soil samples in the vicinity of the municipal sewer sites at selected locations on-site and off-site during the RI and analyze for PFAS (21), TOC, pH, TCL VOCs, TAL Metals plus a subset of samples for Full TCL/TAL
AOPC-04 Potential Fuel Oil Underground Storage Tank	
Historical information indicates that a 10,000-gallon fuel oil UST was present at the John Street property. Ground penetrating radar (GPR) surveys on the John St. property have not identified a UST. Soil borings and soil and groundwater samples collected from the southern portion of the site do not indicate the presence of fuel oil. According to the EDR report, a tank was closed and removed in 1995 from John Street Fluorglas, Allied Signal Inc.; however, coordinates for the tank plot to the middle of Church Street at the intersection of John and Church Streets by Key Bank. The EDR also lists a second UST closed in-place by AlliedSignal Laminate Systems in 1999 was located at Mechanic Street. Given the footprint of the former John St. building, a UST would likely have been located on the south end of the property. Dimensions: None. No fuel oil constituents were detected during the SC. No source known at this time	Conduct an additional GPR survey on the southern area of the property as part of the subsurface clearance activities for new monitoring wells.

Notes and Abbreviations:

PFAS - Perfluoroalkyl Substances
PFOA - Perfluorooctanoic acid
PFOS - Perfluorooctane sulfonic acid
CVOCs - Chlorinated Volatile Organic Compounds
VOCs - Volatile Organic Compounds
SVOCs - Semi-Volatile Organic Compounds

TOC - Total Organic Carbon by the Lloyd Kahn method
PCBs - Polychlorinated Biphenyls
Full TCL/TAL - VOCs/SVOCs/Pesticides/PCBs/Metals/Cyanide
TCL - Target Compound List
TAL - Target Analyte List (Metals & Cyanide)

RI - Remedial Investigation
IRM - Interim Remedial Measure
PDI - Pre-Design Investigation
SVI - Soil Vapor Intrusion

APPENDICES

A	*SC Geophysical Report*
B	*SC Permeability Profiling, Soil Boring and Well Construction Logs*
C	*SC Soil Vapor Point Logs*
D	*SC Groundwater Sampling Records*

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Appendix A
SC Geophysical Report

Geophysical Survey Report
2016 Surveys
John Street Site
Hoosick Falls, New York

Prepared for
ERM CONSULTING & ENGINEERING, INC.
May 2017

GEOPHYSICAL APPLICATIONS INCORPORATED

May 16, 2017

Mr. Jon S. Fox, P.G.
ERM CONSULTING & ENGINEERING, INC.
5788 Widewaters Parkway Phone: 315-233-3035
Syracuse, NY 13214

Subject: Geophysical Survey Report
2016 Surveys
John Street Site
Hoosick Falls, New York

Dear Mr. Fox:

Geophysical Applications, Inc. (GeoApp) performed seismic refraction surveys at the above-noted site to help characterize bedrock depths, overburden stratigraphy and possible bedrock fracture zones. We understand that this information will be used to assist ERM in selecting soil boring and monitoring well locations, as well as additional locations for profiling.

Geophysical data were collected along the four traverses indicated on the accompanying plan map (see Figure 1). The survey areas consisted of flat to steeply-sloped terrain on a mixture of grass, dirt and asphalt surfaces.

This report describes surveys conducted on July 18 and November 16 and 18, 2016. Completed seismic profiles and X, Y, Z spreadsheets listing interpreted refractor elevations were previously provided to ERM; this report is a formal summary of our field methods and interpreted results for 2016 activities.

METHODS OF INVESTIGATION

Traverse Positions and Survey Control

Geophysical traverses acquired during this survey are shown on an annotated aerial photograph provided by ERM (see Figure 1).

GeoApp and ERM personnel selected the traverse locations prior to data acquisition. On soft ground surfaces, labeled pin flags were placed at each seismic shot location. Labeled spray paint marks indicated shot-point locations on hard surfaces. Small spray paint dots were also placed at each geophone location.

ERM's survey subcontractor provided horizontal locations for traverse end points at the John Street site. This information was combined with measurements and notes taken in the field at the time of the surveys to finalize the traverse locations shown on Figure 1.

Vertical survey control was initially acquired by GeoApp using an electronic theodolite and an elevation rod to measure relative elevation changes along the traverses. Elevation readings were acquired at all seismic shot points and most geophone positions. GeoApp's initial draft seismic profiles were prepared using these elevations. ERM's survey subcontractor

215 Hopping Brook Road · Holliston · MA · 01746
508-429-2430 · FAX 508-429-0488

subsequently provided final elevations for at least two locations on each traverse. Seismic profiles were adjusted using these elevations for the profiles presented in this report.

The horizontal X, Y coordinates described above were used to interpolate geophone positions between the selected survey data points. Those coordinates were collated into spreadsheets listing ground-surface elevation, interpreted elevation of water-saturated overburden, and interpreted bedrock elevations at each shot and geophone location along each traverse.

Per ERM, the vertical datum utilized during this project was Mean Sea Level. All horizontal coordinates are in the New York state plane, NAD 83 (feet).

Seismic Refraction Profiling

Seismic refraction profiling was performed to estimate bedrock depths and profile overburden stratigraphy along four traverses, including one test traverse acquired in July, 2016. The refraction method exploits the contrasting seismic velocities between dry overburden, water-saturated overburden, and bedrock, to allow calculating depths to interfaces between those materials.

Refraction data were acquired with an ABEM model Terraloc Mark 6 seismograph. The initial test traverse (Line JS-1) was acquired within the John Street site itself. This 275-foot traverse was constrained to the available space between jersey barriers to the north and a property line to the south. The 24-channel array was collected with a geophone spacing of 11 feet, the maximum possible within the available space.

Three additional traverses were collected in November, 2016. Lengths of the 24-channel geophone arrays were 500 feet with a geophone spacing of 20 feet. These parameters were selected based on an estimated bedrock depth of over 100 feet in some areas based on the test seismic line and geoprobe observations. Each of the three refraction traverses was made up of one individual array (or “spread”). Small sandbags were placed on each tripod-base geophone (on hard ground surfaces) to minimize background vibration caused by wind jostling the geophones. Spike-base geophones were used on soft ground.

A Betsy seisgun generated seismic energy at the seismic shot points where the ground was soft. This device utilizes a 500-grain blank shotgun shell in pilot holes driven 1.5 to 2 feet deep with a steel bar and sledge hammer. A geophone mounted on the seisgun initiated seismic data recording.

A GeoSystems DigiPulse model AWD-II 450-pound accelerated hammer source generated seismic energy on asphalt or where the ground was too hard to hammer the steel bar into the ground. This trailer-mounted machine raises a 450-pound hammer vertically against a thick rubber band, via a hydraulic cylinder. When the hydraulic cylinder reaches the top of its travel range, it separates from the hammer; the elastic band then forces the hammer downward, firmly striking a thick aluminum impact plate. A geophone adjacent to the AWD’s metal plate initiated seismic data recording. Depending upon ambient noise conditions, up to seven seismograms were stacked at each shot point to enhance the recorded seismic data quality.

Refraction seismograms were recorded using 0.25-millisecond sampling intervals, with record lengths of 256 milliseconds. Seismograms were reviewed in the field and stored on the ABEM’s internal hard drive and downloaded to portable media for backup data storage. Data was archived to a CD-ROM at the survey’s conclusion.

Seismic shot points were placed at each array endpoint, to provide reversed seismic profiles. Additional shot points were located at two intermediate positions within each 24-geophone array (typically between geophones 8 and 9, and 16 and 17). Offset shots, normally placed at positions beyond the ends of the arrays to help profile subsurface horizons near the array endpoints were not possible due to physical access constraints.

Refraction data analysis was performed by measuring first-arrival times with Rimrock Geophysics' ASIPIK software module, followed by modeling with Rimrock Geophysics' SIPT2 delay-time interpretation software. This software uses a ray-tracing algorithm, in which calculated layer thickness beneath each geophone is varied to obtain good agreement between observed and modeled arrival times. Time-distance plots were reviewed and layer depths were manually calculated with the crossover-distance technique as a quality-control check.

Each SIPT2 input file was also modeled using Optim, LLC's SeisOpt2D software. This program outputs a color-shaded velocity contour diagram that can sometimes help identify lateral variations in a refractor's velocity (e.g. a localized, steeply-dipping fracture zone in otherwise high-velocity bedrock).

SURVEY LIMITATIONS

The seismic refraction method assumes the velocity of subsurface materials increases with depth. If a low velocity layer exists below a high velocity layer, all calculated depths below the high velocity layer will be incorrect. For most geological situations in New England, the velocity of subsurface materials does increase with depth.

Seismic survey depth calculations are generally estimated to be accurate within $\pm$ 10% (or $\pm$ 3 feet, whichever is larger) for calculated layer depths described in this report. Overburden seismic velocity values were calculated over 24-channel geophone arrays, and therefore represent averaged subsurface conditions. Localized low-velocity bedrock (e.g. fracture zones) occurs naturally and may be present at any New England locale.

Weathered bedrock or overburden layers too thin to be detected by seismic profiling, including glacial till, may be present above the bedrock surface along the traverses acquired for this survey.

RESULTS

Figure 1 shows the geophysical traverses plan map provided by ERM. Figures 2 and 3 show interpreted seismic-refraction cross-sections from Lines JS-2, JS-3 and JS-4. Line JS-1 is not shown because it was too short to reliably detect the locally deep bedrock (see below).

Appendix A contains spreadsheets listing ground-surface elevation, interpreted water-saturated overburden elevation, and interpreted bedrock elevations beneath each shot and geophone location along each traverse. Appendix B contains color-shaded SeisOpt2D velocity-contour profiles for Lines JS-2 through JS-4.

Traverse intersections are noted in pink on each of the seismic cross sections (Figures 2 and 3). Boring or well locations were measured in the field with fiberglass tape measures, relative to the seismic traverses. These locations are noted on the cross sections in blue, when they are less than 30 feet from a traverse.

All seismic cross sections show three interpreted velocity layers. (Note that the cross sections were plotted with a vertical exaggeration of 2:1.) The uppermost layer on each traverse exhibited low compressional seismic velocity values between 1,000 and 1,500 feet per second (ft/sec), representing dry soil or fill.

A layer of water-saturated overburden is interpreted below the dry soil/fill and above bedrock along each traverse. Measured velocities for this layer are interpreted to be approximately 5,000 feet per second.

Calculated bedrock velocities ranged from approximately 11,000 to 12,000 feet per second. Velocities in this range generally indicate rock with some degree of fracturing or weathering.

Appendix B contains color-shaded SeisOpt2D velocity-contour diagrams that depict modeled lateral and vertical variations in compressional seismic velocity values, based on the same arrival times modeled by the SIPT2 software.

Summary of Results

Line JS-1

Line JS-1 was acquired in July, 2016 down the approximate center of the John Street property. As described above, this line's total length was constrained by physical barriers and was limited to 275 feet. Analysis of the data revealed this length to be too short to detect bedrock along the line. Calculations at the shot located at station 2+75 result in a minimum depth to rock of approximately 80 to 84.5 feet. Due to the horizontal offset created by the refracted ray path, this depth would actually plot near station 2+40.

Because rock could not be detected along this line, there is no profile for JS-1 included in this report. Subsequent traverse lengths were increased to 500 feet to increase the likelihood of detecting bedrock. Depth to groundwater was approximately 8.5 to 11 feet below ground surface along this traverse at the time of the survey.

Line JS-2

Station 0+00 on Line JS-2 is located at the edge of a brook; consequently the low end shot was shifted to station 0+10. This traverse crosses John Street, passes the northwest corner of a food pantry building and ends (station 5+00) on the pavement of Superior Street. Average bedrock velocities calculated by SIPT2 are approximately 11,000 to 12,000 feet/second.

The SeisOpt velocity model's 11,000 ft/sec contour resembles the average bedrock surface topography shown by the SIPT2 cross section on Figure 2. However, the SeisOpt2D model indicates higher-velocity bedrock near stations 0+80 to 1+50 feet, and stations 3+00 to 4+50 feet.

Lower bedrock velocities on the SeisOpt2D model between stations 1+50 and 3+00 feet may represent bedrock with somewhat more weathering or fracturing, or deeper competent bedrock.

Line JS-3

This line is located along John Street. The first geophone was located at station 0+20. The low end shot could not be positioned at station 0+00 due to a well cluster and was shifted to station 0+30. Station 5+00 is located approximately 20 feet west of Church Street.

Ground surface, water-saturated overburden, and bedrock increase in elevation towards the east, on the SIPT2 cross section shown on Figure 2.

The Line JS-3 SeisOpt2D model shows deeper highest-velocity bedrock between stations 0+50 and 1+80 feet, and 2+50 and 4+10 feet.

Line JS-4

Line JS-4 runs generally along Lyman Street. The first two geophones (0+20 and 0+40) were located on a vegetated embankment. The low end shot could not be positioned at station 0+00 due to the railroad bed and was shifted to station 0+50.5, near the west side of Lyman Street. The traverse crosses Lyman Street between stations 0+47 and 0+79.5, and again between stations 2+55 and 3+84. Station 5+00 is located in John Street.

The seismic profile shows a relatively flat bedrock surface between stations 0+20 and 2+80, where the bedrock surface begins to rise steeply to the north.

The SeisOpt velocity cross section for Line JS-4 shows good correlation with the seismic profile with no obvious low-velocity zones. Note that deep, high-velocity bedrock is indicated on the SeisOpt2D model between stations 1+50 and 4+00.

* * * * *

Please call the undersigned at 508/429-2430 if you have questions regarding our report. We appreciate this opportunity to provide geophysical services to ERM, and we welcome inquiries regarding this survey or future projects.

Sincerely,

GEOPHYSICAL APPLICATIONS, INC.

M. Blackey
Mark Blackey
Principal and Geophysicist

Peter Giger
Geophysicist

Charlene Sullivan
Charlene Sullivan
Geophysicist

1161565 John Street report May 20017.doc

Legend

- Surface Geophysical Survey Line (GAI Modified)
- ERM Surface Geophysical Survey Line (Field GPS)
- Groundwater Elevation (A Wells)
- Approximate Boundary of Former John St. Facility
- Village Tax Parcel Boundary

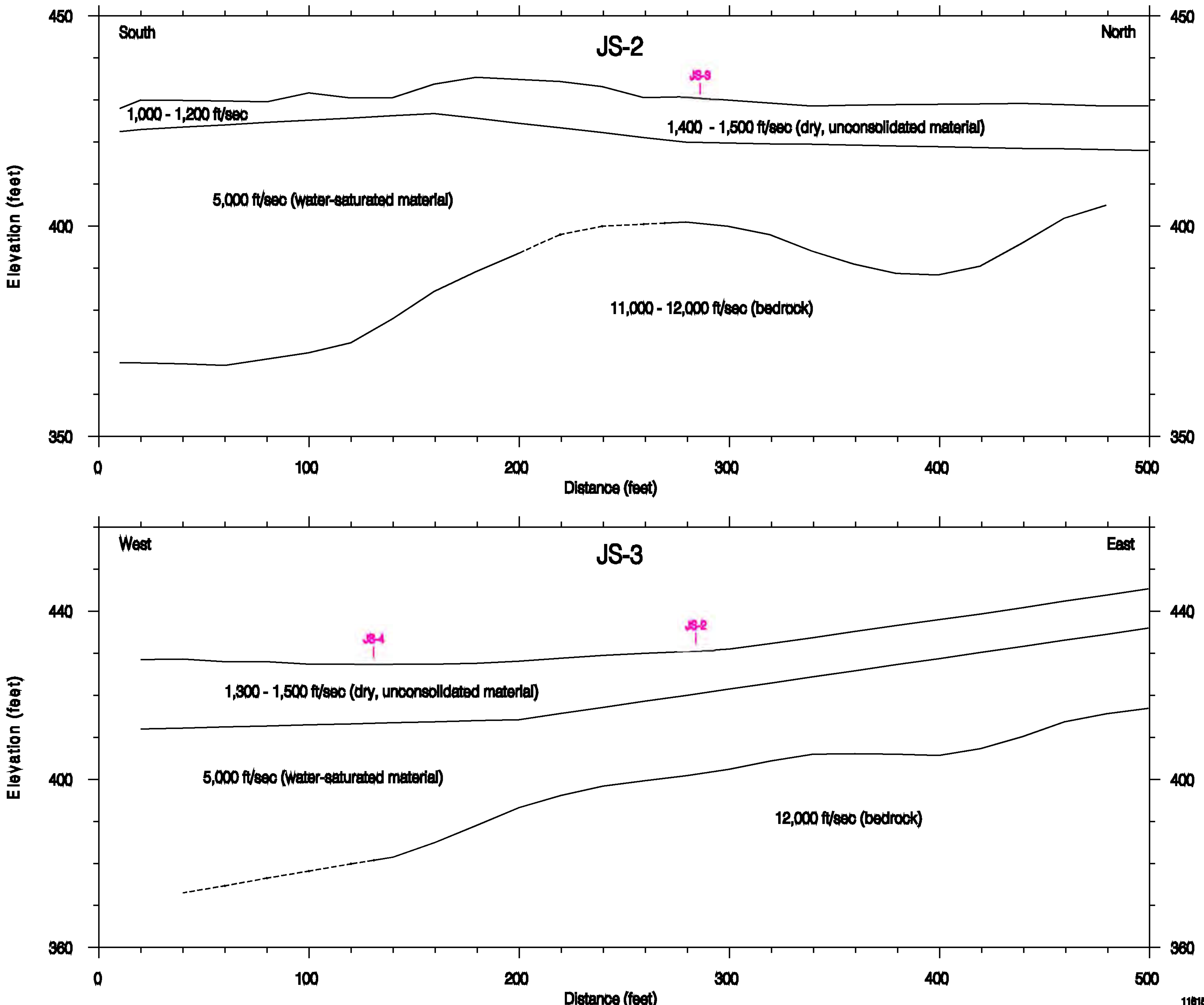
NOTES:
- Surface Geophysical Survey Lines derived from modified survey points provided by GAI on Feb-22-2017.
- ERM produced Surface Geophysical Survey Line captured on Aug-08-2016 using a Trimble rover unit.

N

0 25 50 100 150 200
Feet

Figure 1: Geophysical Survey Lines
John Street
Village of Hoosick Falls
New York

ERM



Notes:

1) Seismic velocity values are in units of feet per second (ft/sec)
2) Horizontal scale, 1 inch = 50 feet
   Vertical scale, 1 inch = 25 feet
   Vertical exaggeration 2:1
3) Elevations for Line JS-2 were referenced to an elevation value of 428.0 feet at ground surface at station 0+10 (provided by ERM)
4) Elevations for Line JS-3 were refrenced to an elevation value of 445.3 feet at ground surface at station 5+00 (provided by ERM)
5) Fieldwork performed November, 2016
6) Elevation datum = Mean Sea Level

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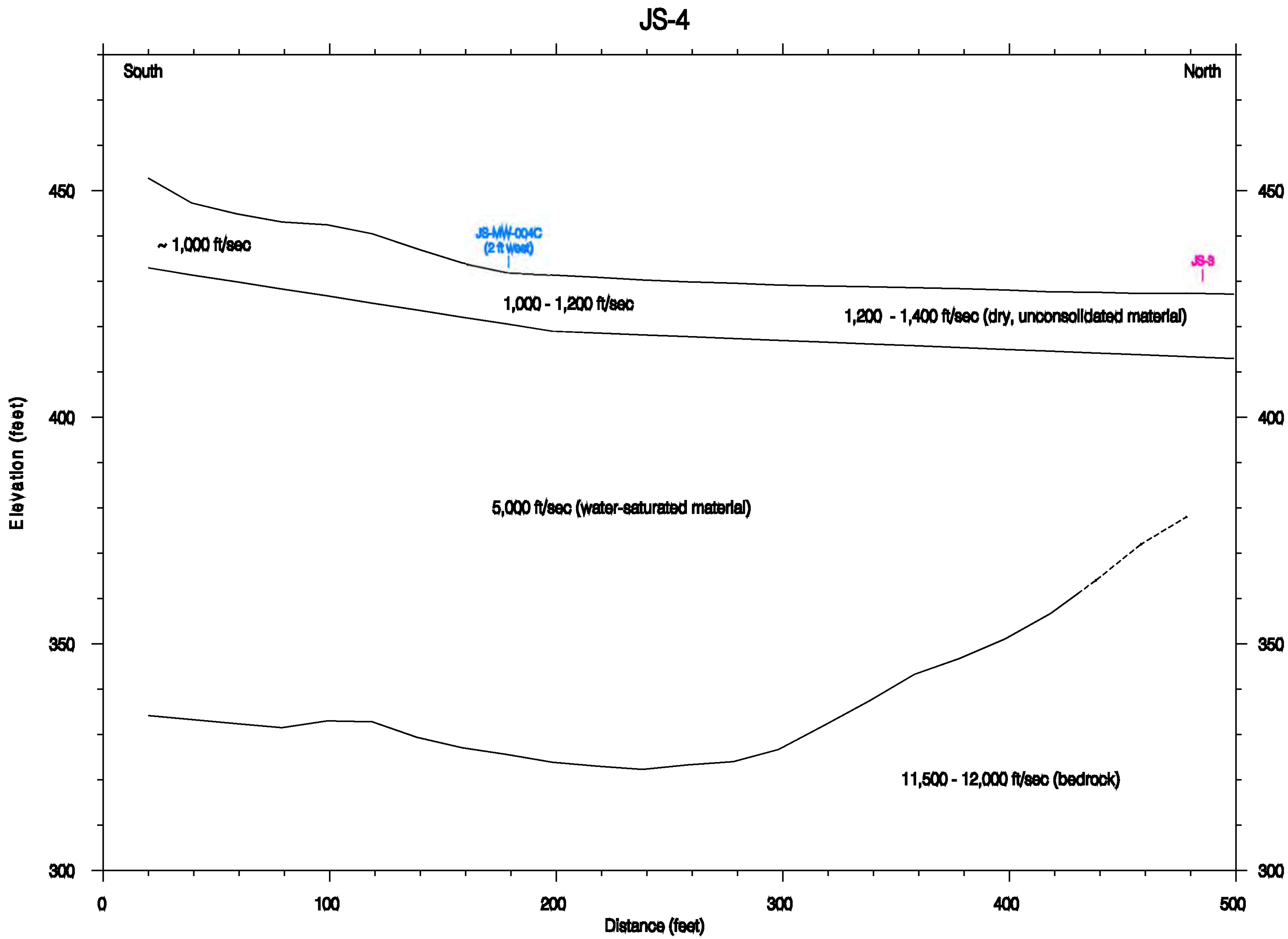
Figure 2
John Street Site
Seismic Refraction Cross Sections, Lines JS-2 and JS-3
Hoosick Falls, New York
prepared for
ERM Consulting & Engineering, Inc.



Notes:

1) Seismic velocity values are in units of feet per second (ft/sec)

2) Horizontal scale, 1 inch = 50 feet
Vertical scale, 1 inch = 25 feet
Vertical exaggeration 2:1

3) Elevations for Line JS-4 were referenced to an elevation value of 445.6 feet at ground surface at station 0+50.5 (provided by ERM)

4) Fieldwork performed November, 2016

5) Elevation datum = Mean Sea Level

1161585 - JS_4.dwg
last modified 3/24/17

GEOPHYSICAL APPLICATIONS INCORPORATED

Figure 3
John Street Site
Seismic Refraction Cross Section, Line JS-4
Hoosick Falls, New York
prepared for
ERM Consulting & Engineering, Inc.

APPENDIX A

X, Y, Z Spreadsheets

John Street Refraction Line JS-2

Geophysical Applications Job #1161565
ERM Consulting & Engineering, Inc.
Hoosick Falls, New York

Station - Distance Along Line (feet)	X-coordinate (feet)	Y-coordinate (feet)	Ground Surface Elevation (feet)	Water Table Elevation (feet)	Top of Bedrock Elevation (feet)
10	799419.78	1483919.47	428.0	422.5	367.5
20	799423.72	1483928.64	430.0	423.0	367.5
40	799431.61	1483946.99	429.9	423.6	367.3
60	799439.49	1483965.34	429.8	424.1	366.9
80	799447.37	1483983.69	429.6	424.7	368.4
99.9	799455.26	1484002.04	431.7	425.2	369.9
119.9	799463.14	1484020.39	430.5	425.7	372.3
139.9	799471.02	1484038.74	430.6	426.3	378.0
159.6	799478.91	1484057.09	433.8	426.8	384.5
179.5	799486.79	1484075.44	435.4	425.7	389.2
199.5	799494.68	1484093.79	434.9	424.5	393.5
219.5	799502.56	1484112.14	434.4	423.4	398.0
239.5	799510.44	1484130.49	433.2	422.3	400.0
259.3	799518.33	1484148.84	430.6	421.1	400.5
279.3	799526.21	1484167.19	430.8	420.0	401.0
299.3	799534.10	1484185.54	430.0	419.8	400.0
319.3	799541.98	1484203.89	429.3	419.6	398.0
339.3	799549.86	1484222.24	428.6	419.5	394.1
359.3	799557.75	1484240.59	428.8	419.3	391.0
379.3	799565.63	1484258.94	428.9	419.1	388.8
399.3	799573.51	1484277.28	429.0	418.9	388.4
419.3	799581.40	1484295.63	429.1	418.7	390.5
439.3	799589.28	1484313.98	429.2	418.5	396.0
459.3	799597.17	1484332.33	428.9	418.4	401.9
479.3	799605.05	1484350.68	428.6	418.2	405.0
499.3	799612.93	1484369.03	428.6	418.0	

John Street Refraction Line JS-3

Geophysical Applications Job #1161565
ERM Consulting & Engineering, Inc.
Hoosick Falls, New York

Station - Distance Along Line	X-coordinate (feet)	Y-coordinate (feet)	Ground Surface Elevation (feet)	Water Table Elevation (feet)	Top of Bedrock Elevation (feet)
0	799273.90	1484277.98			
20	799292.36	1484270.29	428.5	412.0	
40	799310.82	1484262.61	428.6	412.2	373.0
60	799329.29	1484254.92	428.0	412.5	374.7
80	799347.75	1484247.23	428.0	412.7	376.5
100	799366.21	1484239.54	427.4	413.0	378.2
120	799384.68	1484231.85	427.4	413.2	379.9
140	799403.14	1484224.17	427.4	413.5	381.5
160	799421.60	1484216.48	427.4	413.7	385.0
180	799440.07	1484208.79	427.6	414.0	389.1
200	799458.53	1484201.10	428.1	414.2	393.3
220	799477.00	1484193.42	428.8	415.7	396.2
239.9	799495.37	1484185.77	429.5	417.1	398.4
259.9	799513.83	1484178.08	430.0	418.6	399.7
279.9	799532.29	1484170.39	430.4	420.0	400.9
299.9	799550.76	1484162.70	431.0	421.5	402.4
319.9	799569.22	1484155.02	432.3	422.9	404.4
339.8	799587.59	1484147.37	433.7	424.4	406.0
359.8	799606.05	1484139.68	435.2	425.8	406.1
379.7	799624.43	1484132.03	436.6	427.3	406.0
399.7	799642.89	1484124.34	438.0	428.7	405.7
419.6	799661.26	1484116.69	439.3	430.2	407.3
439.6	799679.72	1484109.01	440.8	431.6	410.2
459.5	799698.10	1484101.36	442.4	433.1	413.7
479.5	799716.56	1484093.67	443.8	434.5	415.6
499.4	799734.93	1484086.02	445.3	436.0	416.9

John Street Refraction Line JS-4

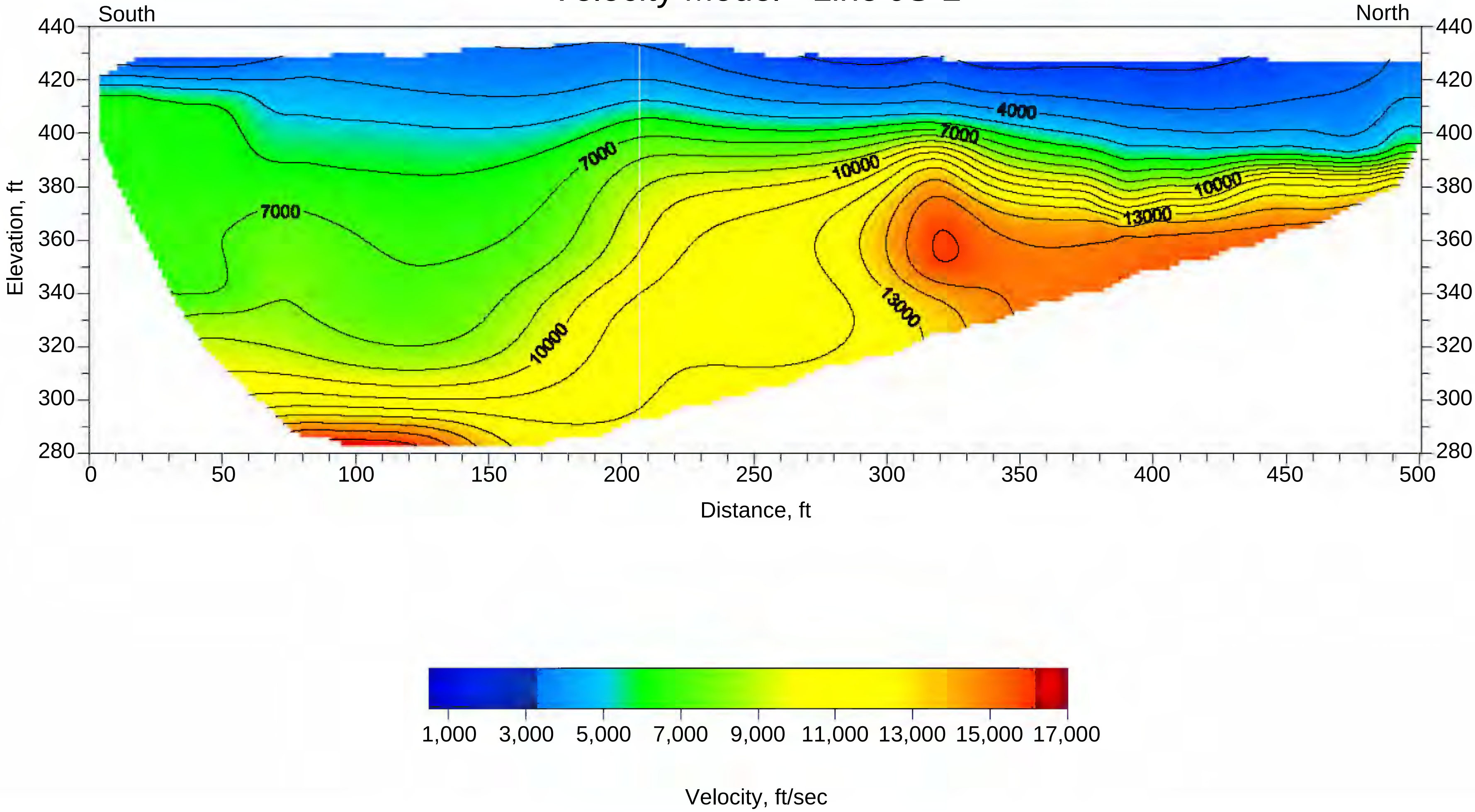
Geophysical Applications Job #1161565
ERM Consulting & Engineering, Inc.
Hoosick Falls, New York

Station - Distance Along Line (feet)	X-coordinate (feet)	Y-coordinate (feet)	Ground Surface Elevation (feet)	Water Table Elevation (feet)	Top of Bedrock Elevation (feet)
20	799276.97	1483778.12	452.8	433.0	334.2
39.2	799281.92	1483796.63	447.3	431.4	333.3
59.1	799287.06	1483815.81	444.9	429.9	332.4
79	799292.19	1483835.00	443.1	428.3	331.5
99	799297.35	1483854.27	442.5	426.8	333.0
118.9	799302.49	1483873.46	440.5	425.2	332.8
138.6	799307.57	1483892.45	437.2	423.7	329.4
158.4	799312.68	1483911.54	434.1	422.1	327.1
178.3	799317.82	1483930.72	432.0	420.6	325.6
198.3	799322.98	1483950.00	431.4	419.0	323.9
218.3	799328.14	1483969.28	430.9	418.6	323.0
238.2	799333.27	1483988.46	430.3	418.2	322.3
258.2	799338.43	1484007.74	429.9	417.8	323.3
278.2	799343.59	1484027.02	429.6	417.4	324.0
298.2	799348.75	1484046.30	429.2	417.0	326.7
318.2	799353.91	1484065.58	429.0	416.6	332.0
338.2	799359.07	1484084.86	428.8	416.2	337.4
358.2	799364.23	1484104.14	428.6	415.8	343.3
378.2	799369.39	1484123.42	428.4	415.4	346.8
398.2	799374.56	1484142.70	428.1	415.0	351.1
418.2	799379.72	1484161.98	427.7	414.6	356.7
438.2	799384.88	1484181.26	427.6	414.2	364.0
458.2	799390.04	1484200.54	427.3	413.8	375.0
478.2	799395.20	1484219.82	427.4	413.4	
499.2	799400.62	1484240.06	427.2	413.0	

APPENDIX B

SEISOPT 2D Velocity Models

Velocity Model - Line JS-2



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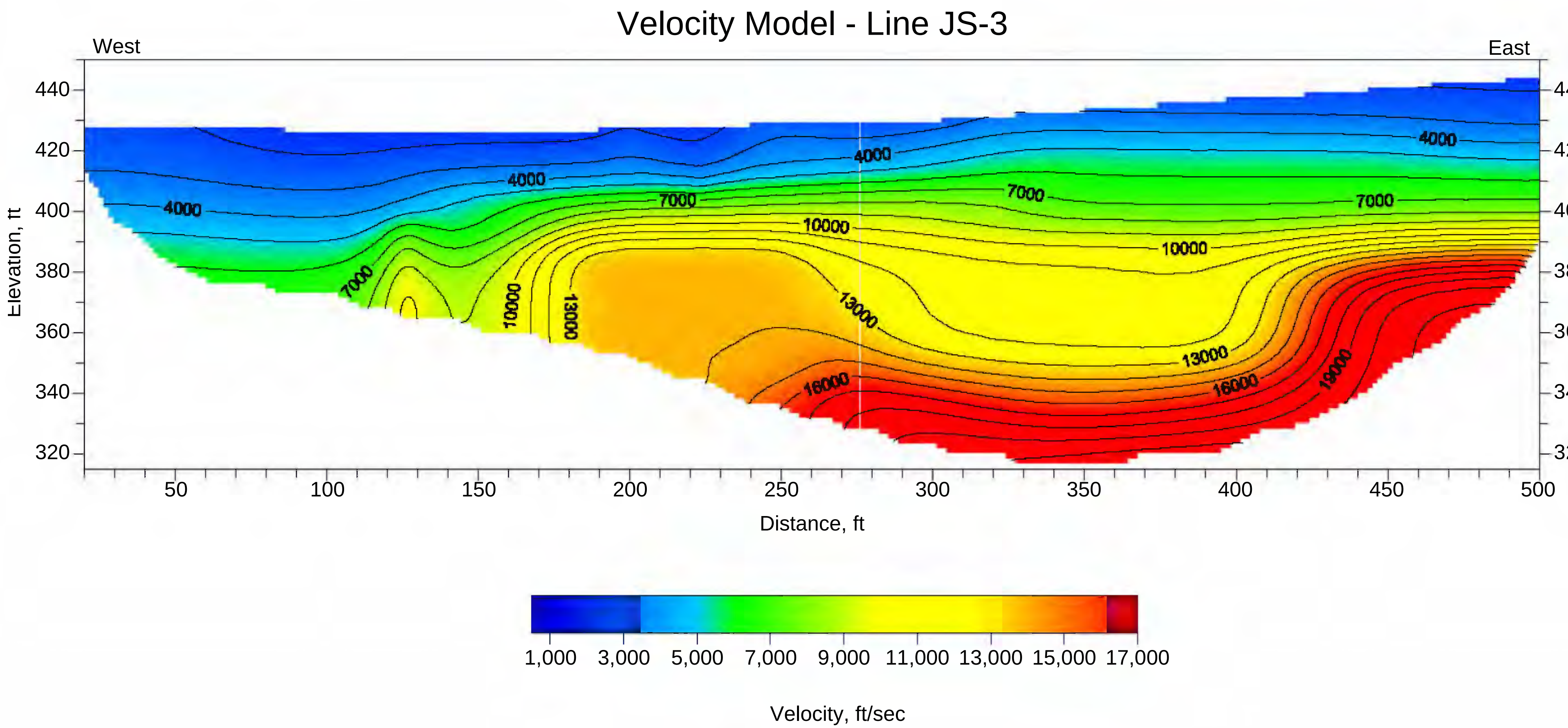
JS2_ velvalues.csv
data limits: 500 to 17,000 ft/sec



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JS3-SO-A_velvalues.csv
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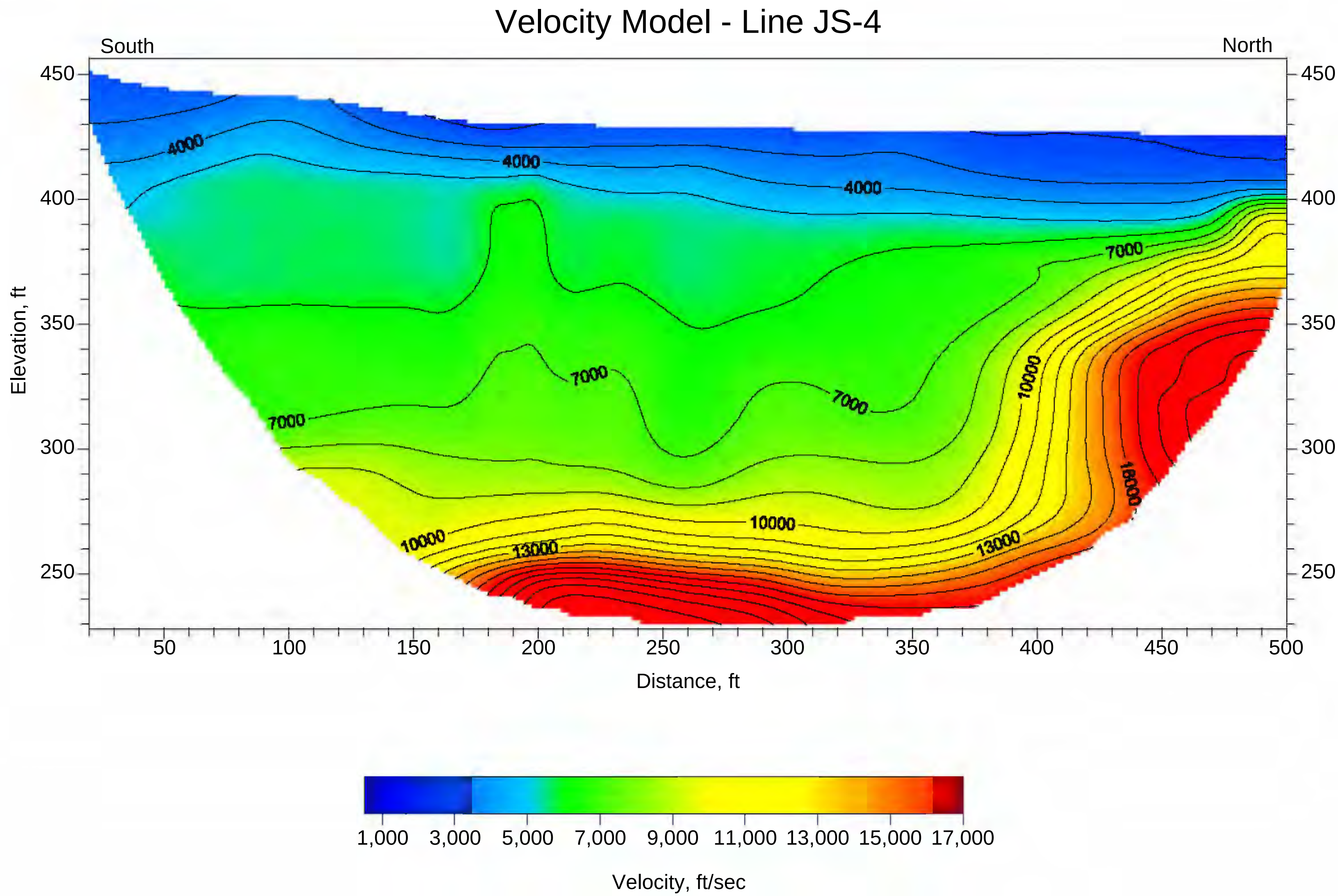

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color file: 1161565.cls
JS4_velvalues.csv
data limits: 500 to 17,000 ft/sec

Appendix B
SC Permeability Profiling, Soil Boring and Well Construction Logs

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-001A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

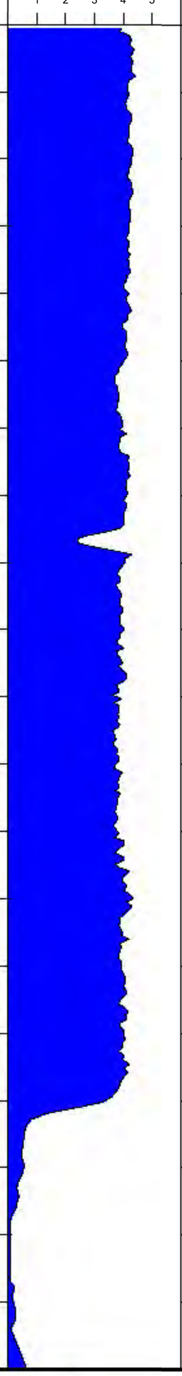
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 8/10/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 8/17/2016
DATE MW COMPLETED: 10/4/2016
GROUND ELEVATION: 428.00 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 79.5 feet bgs
DIAMETER: 1.25-6 inches
LOGGED BY: T. Daniluk/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.78 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Sandy Gravel
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Gravel
USCS Low Plasticity Clay
USCS Poorly-graded Sand
USCS Low Plasticity Silty Clay

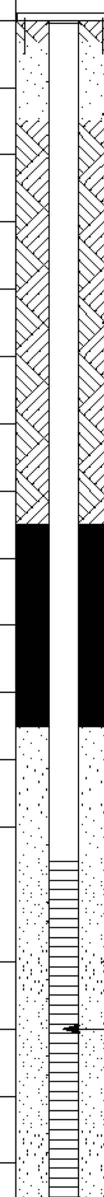
WATERLOO APS (Ik) 1 2 3 4 5



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth	MATERIAL DESCRIPTION
0		DP	50	GP	1.0	Light Gray, GRAVEL AND SAND, trace clay, moisture from precipitation, compact, moist.
	425			SP	3.0	Brown, FINE TO MEDIUM GRAVELLY SAND, subangular gravels (0.25"-1" diameter), poorly graded, loose to medium dense, dry.
				GP	4.5	Brown, COARSE GRAVEL, subangular and subrounded, brick, iron oxidized surfaces, dry.
5		DP	50	CL	6.5	Gray to Brown, CLAY, some fine sand, trace subangular gravel (0.5" diameter), soft, wet.
	420			SP	8.0	Brown to Brownish Gray, FINE TO MEDIUM GRAVELLY SAND, subangular quartz (1" diameter), medium dense, moist, mottling.
10		DP	50	SP	12.0	Brownish Gray, FINE TO COARSE GRAVELLY SAND, subangular and subrounded gravels (1"-2" diameter), medium dense, wet.
	415	DP	75	SP	14.0	Brownish Gray, FINE TO MEDIUM GRAVELLY SAND, trace clay, subangular gravel (0.5"-1" diameter), loose, wet.
15				SP	16.3	Brown to Gray, MEDIUM TO COARSE SAND, some gravel, subrounded (0.5" diameter) and subangular (1"-2" diameter) gravels, poorly graded, loose, wet.
		DP	88	CL	17.2	Light Brown To Gray Brown, CLAY, soft, plastic, saturated.
20	410			CL	20.0	Gray, CLAY, gray to brown transition, soft, plastic, saturated.

Depth interval (ft)	PID (ppm)
0-1	0.1
1-2	0.1
2-3	0.0
3-4	0.1
4-5	0.1
5-6	0.4
6-7	0.6
7-8	0.5
8-9	0.4
9-10	1.0
10-11	0.6
11-12	0.5
12-13	0.8
13-14	
14-15	0.7
15-16	0.3
16-17	10.5
17-18	12.4
18-19	28.4
19-20	10.2

WELL DIAGRAM



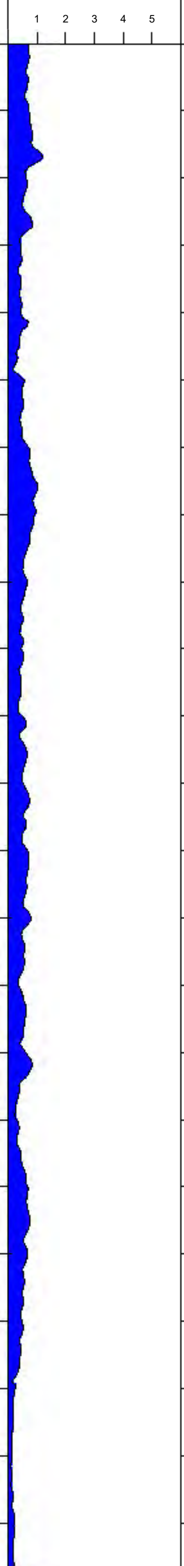
ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-001A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
20		DP	100	CL-ML	21.0	Dark Gray, CLAY, interbedded very fine silty sand, soft, saturated.
25	405	DP	100	CL	28.0	Dark Gray To Gray, CLAY, soft to medium stiff, plastic, saturated.
30	400	DP	100	CL-ML	32.0	Gray, CLAY, interbedded very fine silty sand, gray color lightening down core, soft to medium stiff, plastic, saturated.
	395	DP	100	CL	33.8	Gray, CLAY, soft, plastic, saturated.
35		DP	100	CL-ML	42.8	Gray, CLAY, interbedded very fine silty sand, interbedded very fine-grained silty sands throughout, soft, plastic, saturated.
40	390	DP	100			

PID (ppm)
0.9
0.2
0.2
0.2
0.5
0.2
0.1
0.3
0.4
0.2
0.2
0.3
0.2
0.2
0.2
0.2
0.3
0.3
0.3
0.2
0.2
0.2
0.2

WELL DIAGRAM

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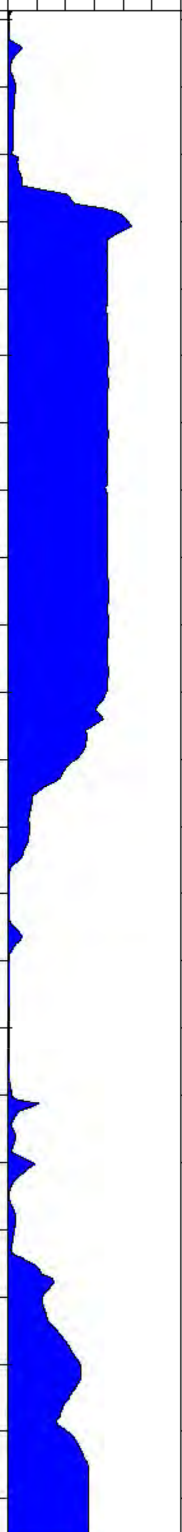
JS-APS/B/MW-001A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft): 45, 50, 55, 60, 65
ELEVATION (feet amsl): 385, 380, 375, 370, 365

WATERLOO APS (Ik)



SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
		SM	44.0	Dark Gray, VERY FINE SILTY SAND, loose, saturated. *(continued)*	0.3	
DP	50	SW	45.5	Dark Gray, VERY FINE SAND, well graded, loose, saturated.	0.4, 1.0	
		SP	48.0	Grayish Brown, FINE TO COARSE SAND, with rounded fine gravel, (0.25" diameter), poorly graded, loose, saturated.	0.7, 1.0	
DP	83	SP	50.0	Brownish Gray, COARSE SAND, and rounded gravel, (0.25" diameter), loose, saturated.	0.7, 1.0	
		SP	51.0	Brownish Gray, FINE TO MEDIUM SAND, loose, saturated.	0.3	
		GP	52.0	Gray, Red Brown, White, and Brown, FINE GRAVEL, trace subrounded coarse sand, loose, saturated.	0.6	
DP	63	SP		Grayish Black, MEDIUM TO COARSE SAND, some gravel, well sorted, subrounded gravel (1"-2" diameter), subangular near 60 ft bgs, loose, saturated.	0.4, 0.4, 0.4, 0.9	
DP	63		60.0		0.5, 0.7, 0.9, 0.8	
DP	25	CL	64.0	Dark Gray, SANDY CLAY, trace subrounded gravel, gravel (0.5" diameter), slight bluish hue, "organic-like odor", soft to medium stiff, saturated.	12.0	
		SP		Dark Grayish - Black, MEDIUM TO COARSE GRAVELLY SAND, some sandy clay, subangular gravel (0.25"-0.5" diameter), poorly sorted, varying colors, loose, saturated.	4.4, 5.0	

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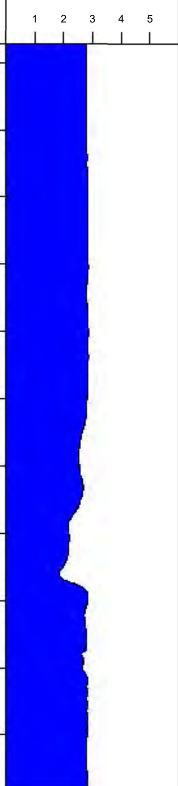
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	360	DP	75	SP	Dark Grayish - Black, MEDIUM TO COARSE GRAVELLY SAND, some sandy clay, subangular gravel (0.25"-0.5" diameter), poorly sorted, varying colors, loose, saturated. *(continued)* 68.0	3.8 2.1	
70		DP	17	SP	Dark Gray, MEDIUM TO COARSE GRAVELLY SAND, trace clay, subangular gravel (3" diameter), medium dense, wet. 72.0	1.4	
75	355	DP	63	SW	Gray To Dark Gray, MEDIUM TO COARSE SAND, with fine to medium gravel, rounded to subrounded, well graded, repeated upward fining units, varying colors, loose to medium dense, saturated. 75.0	1.7 0.8 0.9	
				SP	Gray To Dark Gray, FINE TO MEDIUM GRAVELLY SAND, with subangular medium gravel, (1"-2" diameter), dense, saturated. 76.0	0.4	
		DP	57	SP	Dark Gray To Black, FINE SAND, interbedded white sand lenses "sticky", loose, saturated. 76.5	1.0	
	350			SW	Dark Gray, FINE TO MEDIUM SAND, trace rounded fine gravel, well graded, fining upward, loose, saturated. 78.0	1.3	
				GP	Dark Gray To Reddish-Brown, FINE GRAVEL, some rounded fine to medium sand, saturated. 78.5	1.5	
				SP	Dark Gray, FINE TO MEDIUM SAND, with subangular gravel, black gravel (1"-2" diameter), saturated. 79.5	0.6	

Bottom of APS Boring @ 76.76 ft

Bottom of Boring @ 79.50 ft

ERM
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Syracuse, NY 13214
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JS-APS/B/MW-001B&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 8/10/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 8/17/2016
DATE MW COMPLETED: 11/16/2016
GROUND ELEVATION: 428.40 feet amsl
NOTES: HSA - Hollow Stem Auger

DRILLING METHOD: HSA/ Drive and Wash
TOTAL DEPTH: 79.5 feet bgs
DIAMETER: 1.25-6 inches
LOGGED BY: T. Daniluk/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.90 feet amsl

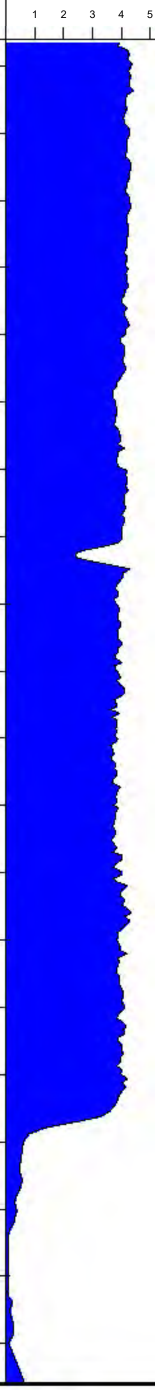
ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Sandy Gravel
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Gravel
USCS Low Plasticity Clay
USCS Poorly-graded Sand
USCS Low Plasticity Silty Clay

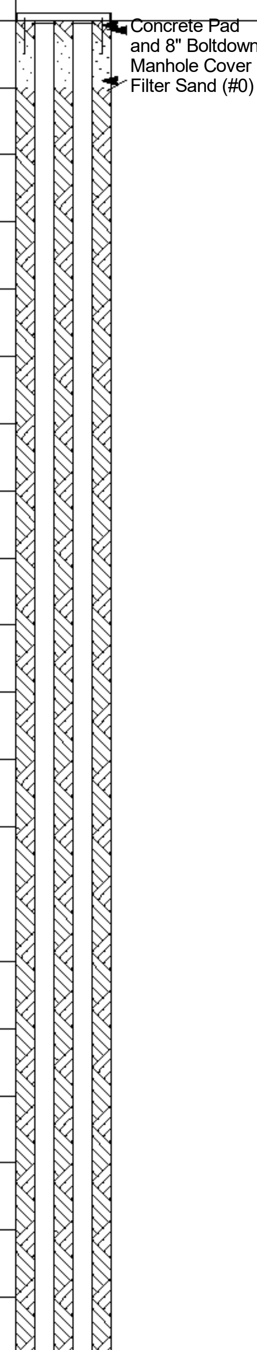
DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth	MATERIAL DESCRIPTION
0		DP	50	GP	1.0	Light Gray, GRAVEL AND SAND, trace clay, moisture from precipitation, compact, moist.
				SP	3.0	Brown, FINE TO MEDIUM GRAVELLY SAND, subangular gravels (0.25"-1" diameter), poorly graded, loose to medium dense, dry.
	425			GP	4.5	Brown, COARSE GRAVEL, subangular and subrounded, brick, iron oxidized surfaces, dry.
5		DP	50	CL	6.5	Gray to Brown, CLAY, some fine sand, trace subangular gravel (0.5" diameter), soft, wet.
				SP	8.0	Brown to Brownish Gray, FINE TO MEDIUM GRAVELLY SAND, subangular quartz (1" diameter), medium dense, moist, mottling.
10	420	DP	50	SP	12.0	Brownish Gray, FINE TO COARSE GRAVELLY SAND, subangular and subrounded gravels (1"-2" diameter), medium dense, wet.
	415	DP	75	SP	14.0	Brownish Gray, FINE TO MEDIUM GRAVELLY SAND, trace clay, subangular gravel (0.5"-1" diameter), loose, wet.
15				SP	16.3	Brown to Gray, MEDIUM TO COARSE SAND, some gravel, subrounded (0.5" diameter) and subangular (1"-2" diameter) gravels, poorly graded, loose, wet.
		DP	88	CL	17.2	Light Brown To Gray Brown, CLAY, soft, plastic, saturated.
20	410			CL	20.0	Gray, CLAY, gray to brown transition, soft, plastic, saturated.

PID (ppm)
0.1
0.1
0.0
0.1
0.1
0.4
0.6
0.5
0.4
1.0
0.6
0.5
0.8
0.7
0.3
10.5
12.4
28.4
10.2

WATERLOO APS (Ik)



WELL DIAGRAM



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JS-APS/B/MW-001B&C

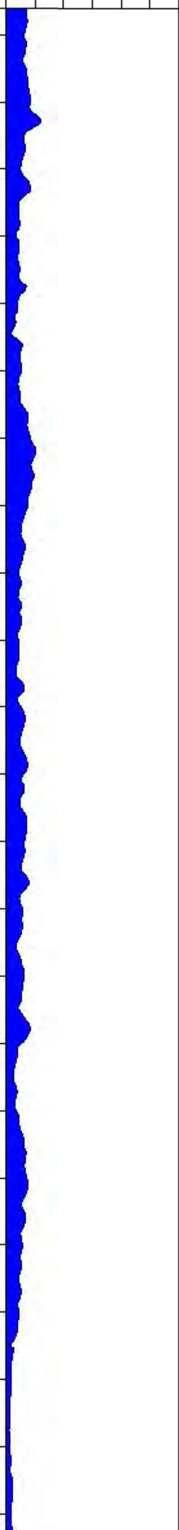
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	U.S.C.S.	MATERIAL DESCRIPTION
20 – 21.0	CL-ML	Dark Gray, CLAY, interbedded very fine silty sand, soft, saturated.
21.0 – 28.0	CL	Dark Gray To Gray, CLAY, soft to medium stiff, plastic, saturated.
28.0 – 32.0	CL-ML	Gray, CLAY, interbedded very fine silty sand, gray color lightening down core, soft to medium stiff, plastic, saturated.
32.0 – 33.8	CL	Gray, CLAY, soft, plastic, saturated.
33.8 – 42.8	CL-ML	Gray, CLAY, interbedded very fine silty sand, interbedded very fine-grained silty sands throughout, soft, plastic, saturated.

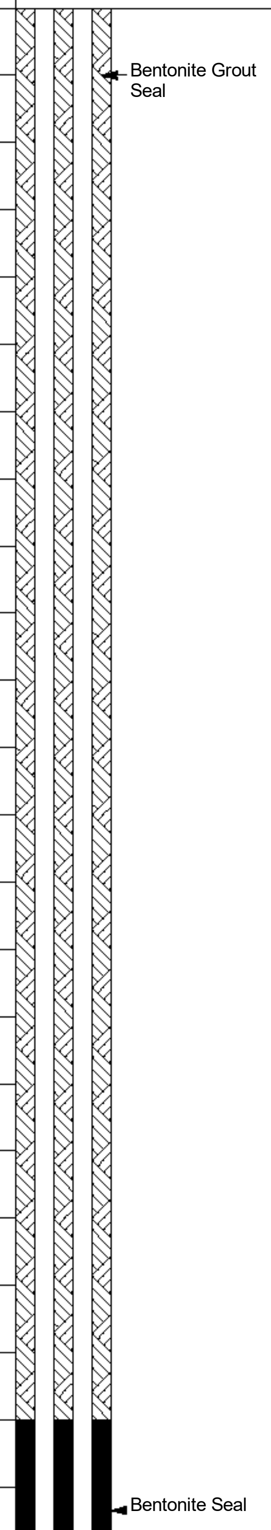
Elevation (feet amsl): 405, 400, 395, 390

WATERLOO APS (Ik): 1 2 3 4 5



SAMPLE TYPE	RECOVERY %	PID (ppm)
DP	100	0.9, 0.2, 0.2, 0.2
DP	100	0.5, 0.2, 0.1, 0.3
DP	100	0.4, 0.2, 0.2, 0.3
DP	100	0.2, 0.2, 0.2, 0.2
DP	100	0.3, 0.3, 0.3, 0.2
DP	100	0.2, 0.2, 0.2

WELL DIAGRAM



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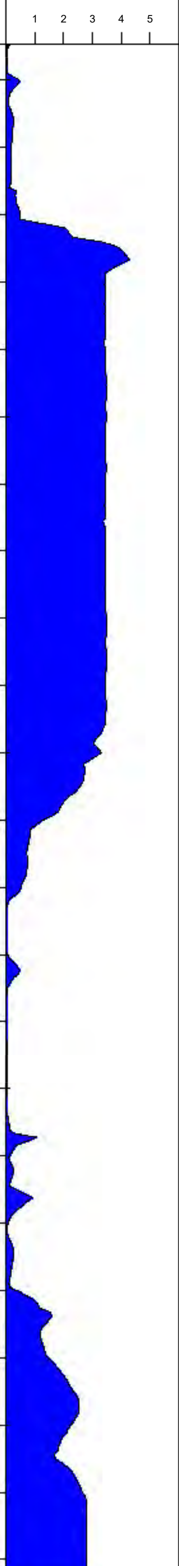
JS-APS/B/MW-001B&C

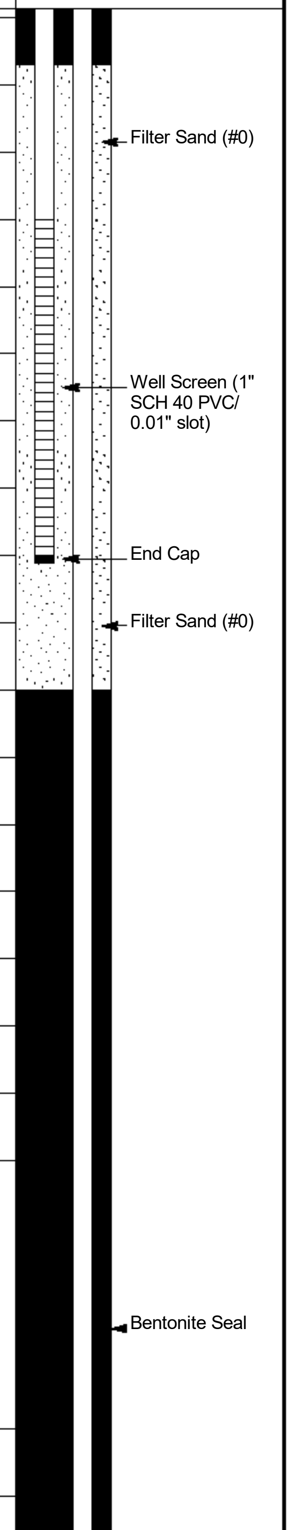
Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG (bottom depth)	MATERIAL DESCRIPTION	PID (ppm)
43–44	385			SM	44.0	Dark Gray, VERY FINE SILTY SAND, loose, saturated. *(continued)*	0.3
44–45.5		DP	50	SW	45.5	Dark Gray, VERY FINE SAND, well graded, loose, saturated.	0.4, 1.0
45.5–48.0		DP	50	SP	48.0	Grayish Brown, FINE TO COARSE SAND, with rounded fine gravel, (0.25" diameter), poorly graded, loose, saturated.	0.7, 1.0
48.0–50.0	380	DP	83	SP	50.0	Brownish Gray, COARSE SAND, and rounded gravel, (0.25" diameter), loose, saturated.	0.7, 1.0
50.0–51.0		DP	83	SP	51.0	Brownish Gray, FINE TO MEDIUM SAND, loose, saturated.	0.3
51.0–52.0		DP	83	GP	52.0	Gray, Red Brown, White, and Brown, FINE GRAVEL, trace subrounded coarse sand, loose, saturated.	0.6
52.0–60.0	375, 370	DP, DP	63, 63	SP	60.0	Grayish Black, MEDIUM TO COARSE SAND, some gravel, well sorted, subrounded gravel (1"-2" diameter), subangular near 60 ft bgs, loose, saturated.	0.4, 0.4, 0.4, 0.9, 0.5, 0.7, 0.9, 0.8
60.0–64.0	365	DP	25	CL	64.0	Dark Gray, SANDY CLAY, trace subrounded gravel, gravel (0.5" diameter), slight bluish hue, "organic-like odor", soft to medium stiff, saturated.	12.0
64.0–66				SP		Dark Grayish - Black, MEDIUM TO COARSE GRAVELLY SAND, some sandy clay, subangular gravel (0.25"-0.5" diameter), poorly sorted, varying colors, loose, saturated.	4.4, 5.0

WELL DIAGRAM



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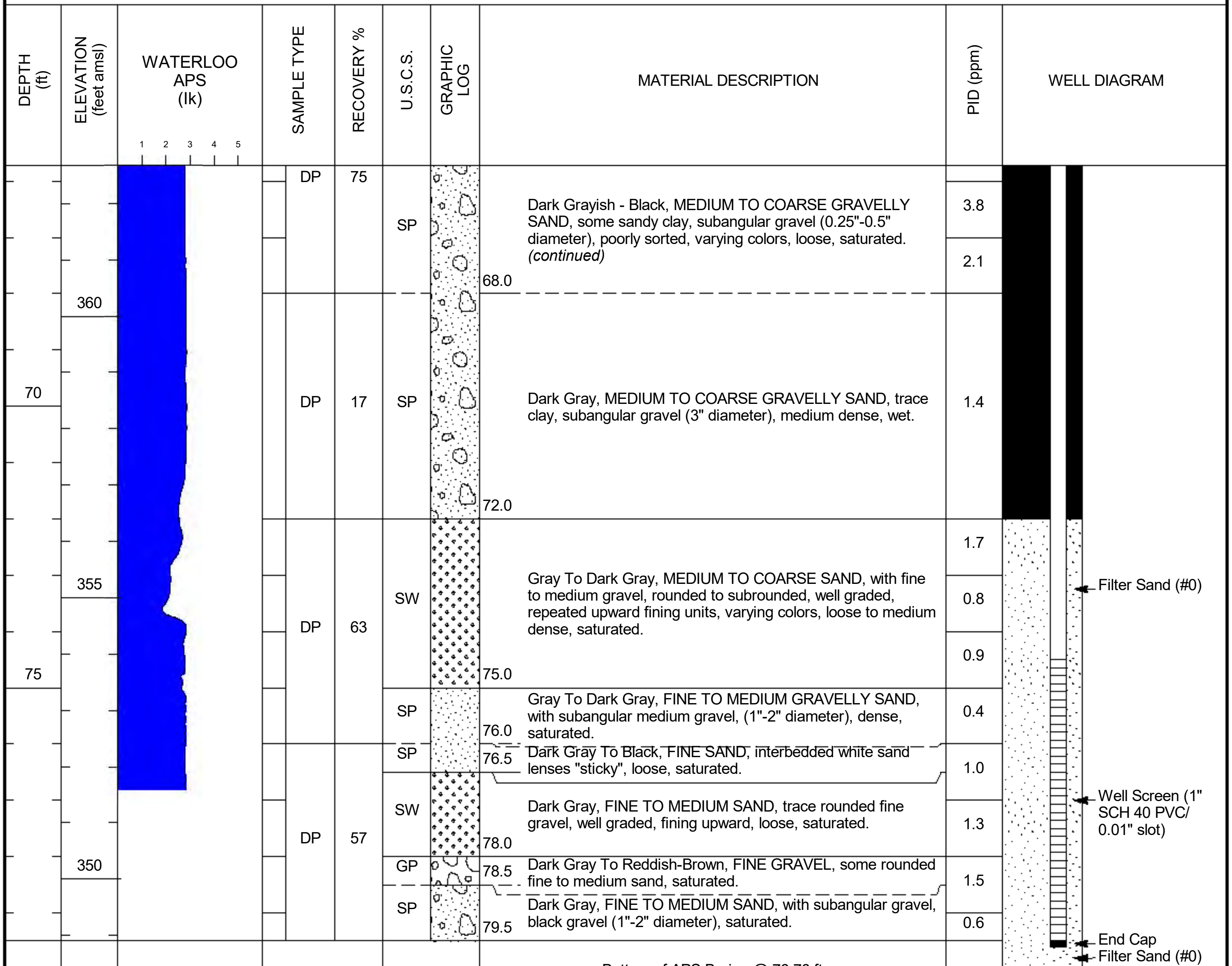
JS-APS/B/MW-001B&C

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York



SAMPLE TYPE	RECOVERY %	U.S.C.S.	Depth	MATERIAL DESCRIPTION	PID (ppm)
DP	75	SP	68.0	Dark Grayish - Black, MEDIUM TO COARSE GRAVELLY SAND, some sandy clay, subangular gravel (0.25"-0.5" diameter), poorly sorted, varying colors, loose, saturated. *(continued)*	3.8, 2.1
DP	17	SP	72.0	Dark Gray, MEDIUM TO COARSE GRAVELLY SAND, trace clay, subangular gravel (3" diameter), medium dense, wet.	1.4
DP	63	SW	75.0	Gray To Dark Gray, MEDIUM TO COARSE SAND, with fine to medium gravel, rounded to subrounded, well graded, repeated upward fining units, varying colors, loose to medium dense, saturated.	1.7, 0.8, 0.9
		SP	76.0	Gray To Dark Gray, FINE TO MEDIUM GRAVELLY SAND, with subangular medium gravel, (1"-2" diameter), dense, saturated.	0.4
DP	57	SP	76.5	Dark Gray To Black, FINE SAND, interbedded white sand lenses "sticky", loose, saturated.	1.0
		SW	78.0	Dark Gray, FINE TO MEDIUM SAND, trace rounded fine gravel, well graded, fining upward, loose, saturated.	1.3
		GP	78.5	Dark Gray To Reddish-Brown, FINE GRAVEL, some rounded fine to medium sand, saturated.	1.5
		SP	79.5	Dark Gray, FINE TO MEDIUM SAND, with subangular gravel, black gravel (1"-2" diameter), saturated.	0.6

Bottom of APS Boring @ 76.76 ft

Bottom of Boring @ 79.50 ft

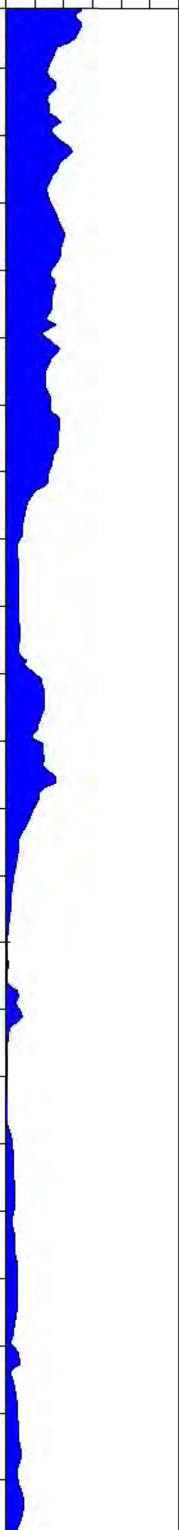
ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-002A

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
20		1 2 3 4 5							



Sample Type	Recovery %
DP	100
DP	100
DP	100
DP	100
DP	100
DP	100

U.S.C.S.	Bottom depth (ft)	Material Description
CL	21.5	Gray, CLAY, semi firm, plastic, saturated. *(continued)*
CL	22.5	Grayish Brown, SANDY CLAY, fine-grained, semi firm, saturated.
SC-SM	24.0	Grayish Brown, CLAYEY SAND, fine-grained, firm, wet to saturated.
CL	25.0	Grayish Brown, SANDY CLAY, soft to medium stiff, plastic, saturated.
CL	26.0	Grayish Brown, CLAY, soft, plastic, saturated.
SC-SM	26.5	Grayish Brown, CLAYEY SAND, semi firm, saturated.
CL	28.0	Grayish Brown, SANDY CLAY, soft, plastic, saturated.
CL	28.5	Brownish Gray, GRAVELLY CLAY, fine gravel, semi firm, saturated.
CL	33.5	Grayish Brown, SANDY CLAY, with fine gravel and medium to fine sand, firm, wet to saturated.
SC-SM	35.0	Grayish Brown, CLAYEY SAND, fine-grained, semi firm, saturated.
CL	36.0	Grayish Brown, SANDY CLAY, fine-grained, soft, plastic, saturated.
SC-SM		Grayish Brown, CLAYEY SAND, fine-grained, semi firm, saturated.

Depth marks: 25, 30, 35, 40. Elevation marks: 405, 400, 395, 390.

PID (ppm): 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0

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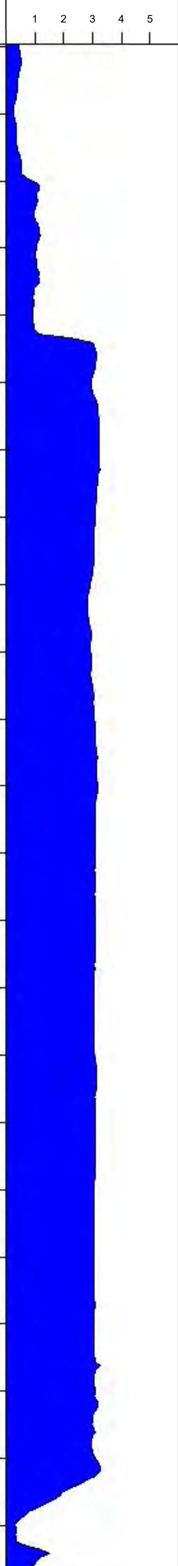
JS-APS/B/MW-002A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	385			SP	43.0 – 44.0	Grayish Brown, FINE SAND, some clay, trace fine to medium gravel, firm, saturated.	0.0	
45		DP	58	SP	45.0	Gray, FINE SAND, firm, saturated.	0.0	
				SP	46.0	Gray, FINE TO MEDIUM SAND, some fine gravel, firm, saturated.	0.0	
				SP	47.0	Gray, FINE TO MEDIUM GRAVELLY SAND, subangular fine gravel, poorly sorted, firm, saturated.	0.0	
				SP	48.0	Gray, FINE TO MEDIUM SAND, trace subangular fine gravel, firm, saturated.	0.4	
50	380	DP	0		52.0	No recovery.		
	375	DP	50	SP	54.0	Gray, FINE TO COARSE GRAVELLY SAND, subangular fine gravel, firm, wet.	0.5 1.7	
55				GP	55.0	Gray, FINE TO COARSE SANDY GRAVEL, subrounded fine to medium gravel, poorly graded, semi firm, wet.	1.5	
				SP	56.0	Gray, FINE TO COARSE GRAVELLY SAND, subrounded fine to coarse gravel, poorly sorted, semi firm, wet.	1.7	
60	370	DP DP	25 50	SP	62.0	Gray, FINE TO COARSE GRAVELLY SAND, subrounded fine to medium gravel, faint "organic-like" odor, large cobble at 57.5 feet bgs, poorly sorted, semi firm, wet to saturated.	2.1 3.1 4.4 1.4	
				GP	64.0	Gray, FINE TO COARSE SANDY GRAVEL, subrounded fine to coarse gravel, poorly graded, loose, wet.	5.3 4.8	
65	365			GP		Grayish Brown, FINE SAND, with subangular fine to medium gravel, some rock fragments, poorly graded, loose, wet.	0.0 0.1	

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JS-APS/B/MW-002A

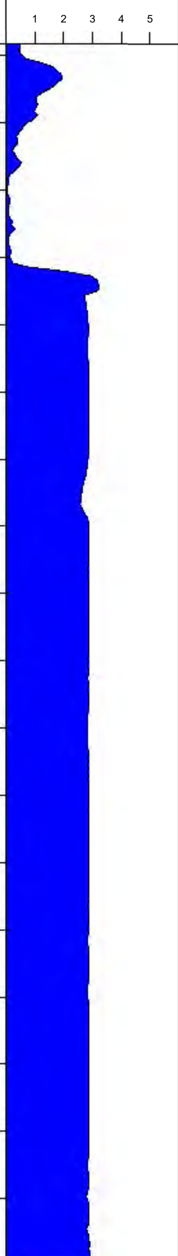
Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
			DP	79	GP	67.0	Grayish Brown, FINE SAND, with subangular fine to medium gravel, some rock fragments, poorly graded, loose, wet. *(continued)*	0.1	
	360							0.9	
70			DP	56	SP	70.0	Grayish Brown, FINE TO MEDIUM GRAVELLY SAND, subangular fine to coarse gravel, firm, wet.	0.3	
								0.0	
					SP	71.0	Red Brown, FINE TO MEDIUM SAND, with subangular fine to coarse gravel, poorly sorted, hard, wet.	0.3	
					GP	72.0	Grayish Brown, FINE TO COARSE SANDY GRAVEL, subrounded fine to coarse gravel, fine- to medium-grained sand, poorly graded, loose, wet.	0.1	
	355		DP	79				0.4	
75								0.3	
								0.5	
					SP	78.0	Grayish Brown, FINE TO MEDIUM GRAVELLY SAND, subrounded fine- to medium-grained sand, fine to coarse gravel, cobbles and rock fragments, poorly graded, firm, wet.	0.2	
								0.0	
								0.2	
	350		DP	50	GP	80.0	Grayish Brown, FINE TO MEDIUM SANDY GRAVEL, subrounded fine- to medium-grained sand, fine to coarse gravel, some subangular rock fragments, poorly graded, firm, wet.	0.1	
80								0.0	
					SP	81.0	Grayish Brown, FINE TO COARSE GRAVELLY SAND, trace silt, fine to coarse subangular gravel, some oxidation, poorly sorted, hard, wet.	0.0	
			DP	34	GP	81.5	Grayish Brown, FINE TO MEDIUM SANDY GRAVEL, subrounded poorly graded, loose, saturated.	0.0	
					SP	82.0	Grayish Brown, FINE GRAVELLY SAND, subrounded fine to coarse gravel, hard, wet.		
	345						Samples for description not available below drilling refusal depth.		



Bottom of APS Boring @ 83.90 ft

Bottom of Boring @ 82.00 ft

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-003A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

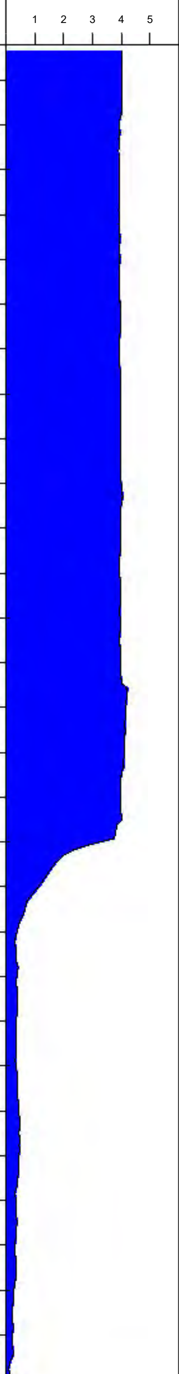
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 8/4/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 8/10/2016
DATE MW COMPLETED: 10/4/2016
GROUND ELEVATION: 431.40 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 88.5 feet bgs
DIAMETER: 1.25-6 inches
LOGGED BY: T. Daniluk/ J. Reynolds
CHECKED BY: H. Usle
TOC ELEVATION: 431.07 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

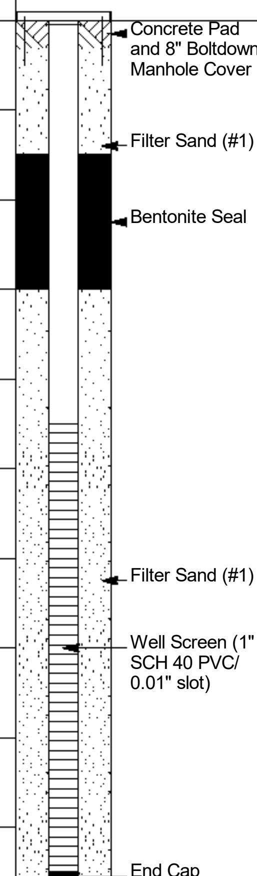
GRAPHIC LOG LEGEND
USCS Poorly-graded Gravelly Sand
USCS Low Plasticity Silty Clay
USCS Poorly-graded Gravel
USCS Poorly-graded Sandy Gravel
USCS Low Plasticity Clay
USCS Clayey Sand

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–2.0	430.0	HA	100	SP	Grayish Brown, FINE GRAVELLY SAND, subangular fine to coarse gravel, large roots, dry.	0.0, 0.2
2.0–3.0				SP	Reddish Brown, FINE TO MEDIUM GRAVELLY SAND, subrounded fine to medium gravel, loose, dry.	0.0
3.0–5.0	427.5			SP	Reddish Brown, GRAVELLY SAND, subangular fine to coarse gravel, some debris, loose, dry to moist.	0.0, 0.0
5.0–6.5	425.0	DP	33	CL-ML	Reddish Brown, CLAYEY SILT, some subangular fine to medium gravelly sand, wood present, semi firm, moist.	0.0, 0.0
6.5–7.5				GP	MEDIUM TO COARSE GRAVEL, subangular wood present, loose.	0.0
7.5–8.0				CL-ML	Reddish Brown, CLAYEY SILT, with fine to medium sand, some fine to medium subangular gravel, semi firm, moist to wet.	
8.0–8.5	422.5	DP	75	GP	Reddish Brown, FINE TO MEDIUM SANDY GRAVEL, some silt, subangular gravel, semi firm, wet.	
8.5–9.0				CL	Reddish Brown, CLAY, trace subangular fine to medium gravel, soft, saturated.	
9.0–12.0	420.0			CL	Grayish Brown, CLAY, soft, saturated.	0.0, 0.0, 0.0
12.0–15.0	417.5	DP	100	CL	Grayish Brown, CLAY, trace subrounded fine to medium gravel, soft, saturated.	0.0, 8.1, 52.9

WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-003A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

Depth scale (ft): 15.0, 17.5, 20.0, 22.5, 25.0, 27.5, 30.0
Elevation scale (feet amsl): 415.0, 412.5, 410.0, 407.5, 405.0, 402.5, 400.0
WATERLOO APS (Ik) scale: 1 2 3 4 5

DEPTH (ft)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0–16.0			CL	Grayish Brown, CLAY, trace subrounded fine to medium gravel, soft, saturated. *(continued)* 16.0	201.2	
16.0–20.0	DP	100	CL	Grayish Brown, CLAY, soft, low plasticity, saturated. 20.0	188.9 123.3 61.2 37.1	
20.0–24.0	DP	100	CL	Grayish Brown, CLAY, soft to medium stiff, saturated.	2.0 0.0 0.0 0.0	
24.0–27.0	DP	100	CL	(continued) 27.0	0.0 0.0 0.0	
27.0–28.0			CL	Reddish Brown, CLAY, soft to medium stiff, saturated. 28.0	0.0	
28.0–28.5	DP	100	SC	Grayish Brown, CLAYEY SAND, fine-grained, semi firm, saturated. 28.5	0.0	
28.5–29.5			CL	Grayish Brown, CLAY, trace fine to medium sand, semi firm, saturated. 29.5	0.0	
29.5–30.0			SC	Grayish Brown, CLAYEY SAND, fine-grained, soft to medium stiff, saturated. 30.0		
30.0–32.0			CL	Grayish Brown, CLAY, trace fine sand, semi firm, saturated. 32.0	0.4 0.4	

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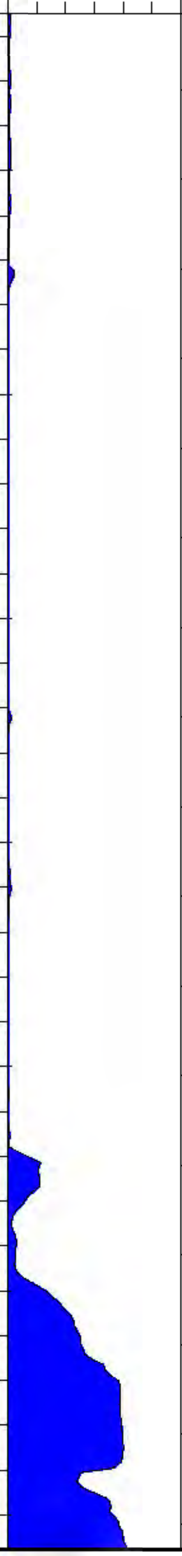
JS-APS/B/MW-003A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft): 32.5, 35.0, 37.5, 40.0, 42.5, 45.0, 47.5

ELEVATION (feet amsl): 397.5, 395.0, 392.5, 390.0, 387.5, 385.0, 382.5

WATERLOO APS (Ik) 1 2 3 4 5



SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom Depth	MATERIAL DESCRIPTION
DP	100	CL	36.5	Grayish Brown, CLAY, trace fine sand, soft to medium stiff, plastic, saturated. *(continued)*
DP	100	SC	37.5	Grayish Brown, CLAYEY SAND, very fine sand, semi firm, saturated.
		CL	38.0	Grayish Brown, CLAY, soft, plastic, saturated.
		SC	40.0	Grayish Brown, CLAYEY SAND, very fine sand, semi firm, saturated.
DP	100	CL	41.5	Grayish Brown, SANDY CLAY, very fine sand, poorly sorted, semi firm, saturated.
		CL	42.0	Grayish Brown, CLAY, soft, plastic, saturated.
		CL	44.0	Grayish Brown, SANDY CLAY, very fine sand, poorly sorted, semi firm, saturated.
DP	100	SC	47.0	Grayish Brown, CLAYEY SAND, very fine sand, poorly sorted, soft, saturated.
		CL	47.5	Grayish Brown, SANDY CLAY, trace subangular fine gravel, very fine-grained sand, semi firm, saturated.
		SM	48.5	Reddish Brown, FINE TO MEDIUM SILTY SAND, trace clay, firm, wet.
		SW		Reddish Brown, MEDIUM TO COARSE GRAVELLY SAND, subrounded fine to coarse gravel, subangular sand grains, poorly sorted, loose to medium dense, wet.

PID (ppm): 0.4, 0.4, 0.3, 0.2, 0.5, 0.3, 0.2, 0.1, 0.0, 0.1, 0.2, 0.2, 0.1, 0.1, 0.1, 0.1, 0.0

WELL DIAGRAM

ERM
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Syracuse, NY 13214
Telephone: (315) 445-2554

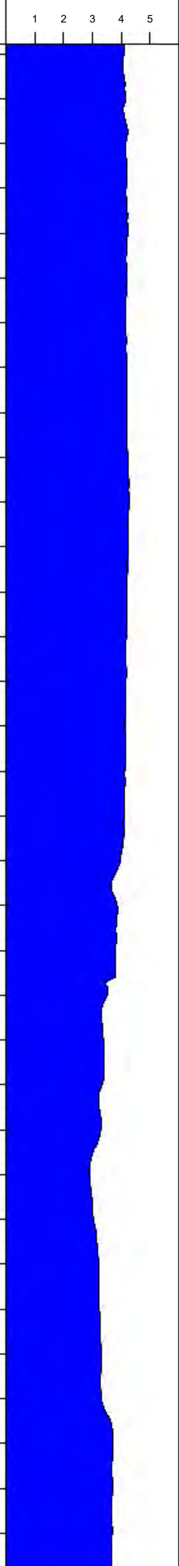
JS-APS/B/MW-003A

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

Depth (ft) markers: 50.0, 52.5, 55.0, 57.5, 60.0, 62.5, 65.0
Elevation (feet amsl) markers: 380.0, 377.5, 375.0, 372.5, 370.0, 367.5, 365.0

WATERLOO APS (Ik)



SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG (bottom depth)	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
DP	50	SW	54.0	Reddish Brown, MEDIUM TO COARSE GRAVELLY SAND, subrounded fine to coarse gravel, subangular sand grains, poorly sorted, loose to medium dense, wet. *(continued)*	0.0, 0.0, 0.0, 2.0, 1.1	
DP	75	GW	56.0	Grayish Brown, SANDY GRAVEL, subangular medium to coarse gravel, medium- to coarse-grained sand, poorly sorted, loose, wet.	2.3, 0.5	
DP	13	SP	60.0	Grayish Brown, FINE TO COARSE GRAVELLY SAND, fine to coarse gravel, subrounded to subangular, coarse gravel in tip, dense, wet.	0.9	
DP	96	SW	63.0	Grayish Brown, FINE TO MEDIUM SAND, trace coarse gravel, poorly sorted, dense, wet.	0.6, 0.9, 0.6	
		SP	63.5	Reddish Brown, FINE SAND, well sorted, dense, wet.	0.0	
		SW	64.0	Reddish Brown, FINE TO MEDIUM SAND, poorly sorted, dense, wet.		
DP	58	GW		Gray, SANDY GRAVEL, medium to coarse gravel, fine- to coarse-grained sand, some rock fragments, fining upward sequence, poorly sorted, loose, wet.	0.1, 0.0	

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Syracuse, NY 13214
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JS-APS/B/MW-003A

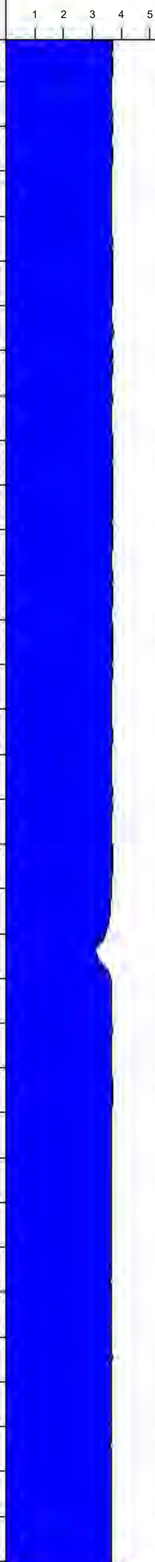
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

Depth scale (ft): 67.5, 70.0, 72.5, 75.0, 77.5, 80.0, 82.5

Elevation scale (feet amsl): 362.5, 360.0, 357.5, 355.0, 352.5, 350.0

WATERLOO APS (Ik) 1 2 3 4 5



SAMPLE TYPE	RECOVERY %	U.S.C.S.	DEPTH (ft)	MATERIAL DESCRIPTION	PID (ppm)
		GW	67.0		0.1
		GP	68.0	Grayish Brown, FINE TO COARSE SANDY GRAVEL, subrounded fine to coarse gravel, dense, wet.	0.0
DP	75	SP	68.5	Grayish Brown, FINE TO COARSE GRAVELLY SAND, subangular fine to medium gravel, well sorted, loose, wet.	0.1
		GP	69.0	Grayish Brown, COARSE SANDY GRAVEL, subangular fine gravel, loose, wet.	
		GP	69.3	Gray, MEDIUM TO COARSE GRAVEL, subrounded dense, wet.	
		SW	70.0	Grayish Brown, FINE TO MEDIUM SAND, some subangular fine to medium gravel, fining upward sequence, some coarse-grained sand, well graded, loose, wet.	0.0
		GP	71.0	FINE TO COARSE GRAVEL, trace subangular and subrounded coarse sand, loose, wet.	0.0
		SP	72.0	Reddish Brown, FINE TO MEDIUM GRAVELLY SAND, some silt, fine to coarse subangular gravel, weathered bedrock fragments at base, wet.	0.0
DP	83	SW	72.5	Grayish Brown, FINE TO COARSE GRAVELLY SAND, subangular medium to coarse gravel, poorly sorted, dense, wet.	0.0
		GW	74.0	Grayish Brown, FINE TO COARSE GRAVEL, trace subrounded coarse sand, poorly sorted, wet.	0.0
		SW	74.5	Grayish Brown, FINE TO MEDIUM GRAVELLY SAND, angular fine to medium gravel, poorly sorted, semi firm, saturated.	0.0
		GP	75.0	Grayish Brown, MEDIUM TO COARSE GRAVEL, some subrounded fine to medium sand, well sorted, wet.	
		GP	75.5	Grayish Brown, FINE GRAVEL, some subrounded fine to medium sand, well sorted, wet.	0.0
		GP	76.0	Grayish Brown, SANDY GRAVEL, subrounded medium to coarse gravel, fine-grained sand, loose, wet.	
DP	75	SP	76.5	Brown, FINE TO MEDIUM SAND, some fine gravel, well sorted, semi firm, wet.	0.1
		GW	78.0	Gray, FINE TO COARSE GRAVEL, subrounded poorly sorted, loose, wet.	0.1
		GW	79.5	Gray, FINE TO COARSE SANDY GRAVEL, subangular fine to coarse gravel, fine- to coarse-grained sand, poorly sorted, loose, wet.	0.2
		SP	80.0	Reddish Brown, FINE TO MEDIUM GRAVELLY SAND, subangular fine to coarse gravel, rock fragments at 79.5 feet bgs, dense, wet.	0.0
DP	88	SP	80.5	Grayish Brown, FINE TO MEDIUM GRAVELLY SAND, subangular medium to coarse gravel, dense, wet.	0.3
		GP	81.5	Gray, SANDY GRAVEL, subrounded fine to coarse gravel, fine- to medium-grained sand, shale fragments, loose, wet.	0.1
		GP	83.0	Gray, FINE TO COARSE GRAVEL, some subrounded fine to medium sand, shale fragments, loose, wet.	0.0
		GP		Grayish Brown, FINE TO COARSE SANDY GRAVEL, subangular fine to medium sand, shale fragments, loose, wet.	

WELL DIAGRAM

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
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JS-APS/B/MW-003A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	347.5				GP	84.0		0.0	
85.0	345.0		DP	38	GW	87.0	Grayish Brown, FINE TO COARSE SANDY GRAVEL, subrounded fine to coarse sand, fine to coarse subrounded and subangular rock fragments, poorly sorted, dense, wet.	5.0 5.0 5.0	
87.5							Samples for description not available below drilling refusal depth.		

Bottom of APS Boring @ 88.50 ft

Bottom of Boring @ 87.00 ft

ERM
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Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-003B&C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

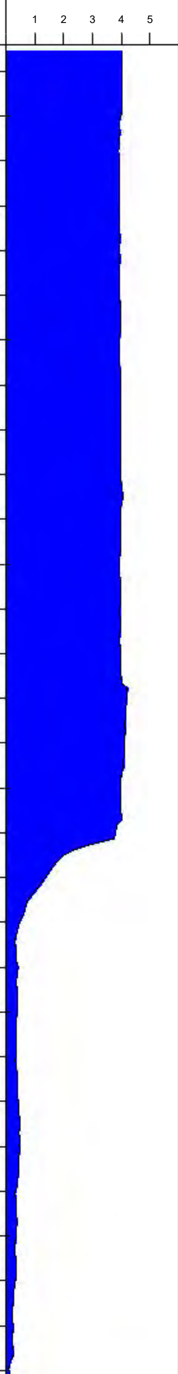
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 8/4/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 8/10/2016
DATE MW COMPLETED: 11/30/2016
GROUND ELEVATION: 430.80 feet amsl
NOTES: HSA - Hollow Stem Auger

DRILLING METHOD: HSA/ Drive and Wash
TOTAL DEPTH: 88.5 feet bgs
DIAMETER: 1.25-6 inches
LOGGED BY: T. Daniluk/ J. Reynolds
CHECKED BY: H. Usle
TOC ELEVATION: 430.40 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Gravelly Sand
USCS Low Plasticity Silty Clay
USCS Poorly-graded Gravel
USCS Poorly-graded Sandy Gravel
USCS Low Plasticity Clay
USCS Clayey Sand

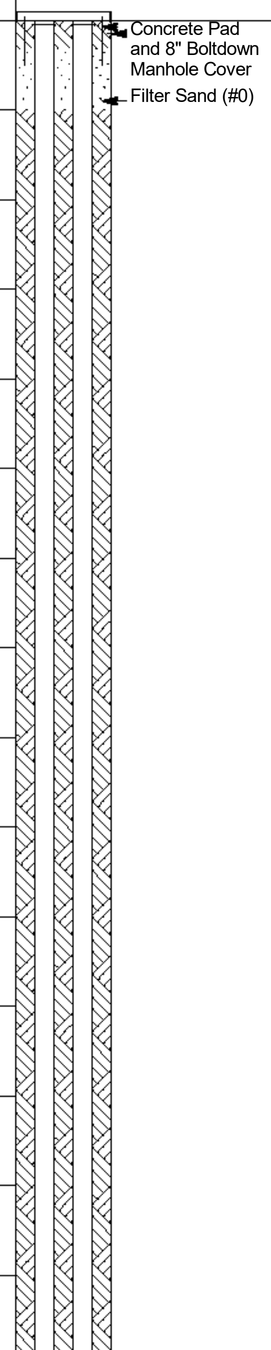
WATERLOO APS (Ik)



DEPTH (ft)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–2.0	HA	100	SP	Grayish Brown, FINE GRAVELLY SAND, subangular fine to coarse gravel, large roots, dry.	0.0, 0.2
2.0–3.0	HA	100	SP	Reddish Brown, FINE TO MEDIUM GRAVELLY SAND, subrounded fine to medium gravel, loose, dry.	0.0
3.0–5.0	HA	100	SP	Reddish Brown, GRAVELLY SAND, subangular fine to coarse gravel, some debris, loose, dry to moist.	0.0, 0.0
5.0–6.5	DP	33	CL-ML	Reddish Brown, CLAYEY SILT, some subangular fine to medium gravelly sand, wood present, semi firm, moist.	0.0, 0.0
6.5–7.5	DP	33	GP	MEDIUM TO COARSE GRAVEL, subangular wood present, loose.	0.0
7.5–8.0	DP	33	CL-ML	Reddish Brown, CLAYEY SILT, with fine to medium sand, some fine to medium subangular gravel, semi firm, moist to wet.	
8.0–8.5	DP	75	GP	Reddish Brown, FINE TO MEDIUM SANDY GRAVEL, some silt, subangular gravel, semi firm, wet.	
8.5–9.0	DP	75	CL	Reddish Brown, CLAY, trace subangular fine to medium gravel, soft, saturated.	
9.0–12.0	DP	75	CL	Grayish Brown, CLAY, soft, saturated.	0.0, 0.0, 0.0
12.0–15.0	DP	100	CL	Grayish Brown, CLAY, trace subrounded fine to medium gravel, soft, saturated.	0.0, 8.1, 52.9

Elevation (feet amsl): 430.0, 427.5, 425.0, 422.5, 420.0, 417.5

WELL DIAGRAM



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Syracuse, NY 13214
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JS-APS/B/MW-003B&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	415.0			CL	Grayish Brown, CLAY, trace subrounded fine to medium gravel, soft, saturated. *(continued)* (16.0)	201.2	
17.5	412.5	DP	100	CL	Grayish Brown, CLAY, soft, low plasticity, saturated. (20.0)	188.9, 123.3, 61.2, 37.1	
20.0	410.0	DP	100	CL	Grayish Brown, CLAY, soft to medium stiff, saturated. (27.0)	2.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	Bentonite Grout Seal
22.5	407.5	DP	100				
25.0	405.0						
27.5				CL	Reddish Brown, CLAY, soft to medium stiff, saturated. (28.0)	0.0	
	402.5	DP	100	SC	Grayish Brown, CLAYEY SAND, fine-grained, semi firm, saturated. (28.5)	0.0	
				CL	Grayish Brown, CLAY, trace fine to medium sand, semi firm, saturated. (29.5)	0.0	
30.0				SC	Grayish Brown, CLAYEY SAND, fine-grained, soft to medium stiff, saturated. (30.0)		
	400.0			CL	Grayish Brown, CLAY, trace fine sand, semi firm, saturated. (32.0)	0.4, 0.4	

WATERLOO APS (Ik): 1 2 3 4 5

ERM
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Syracuse, NY 13214
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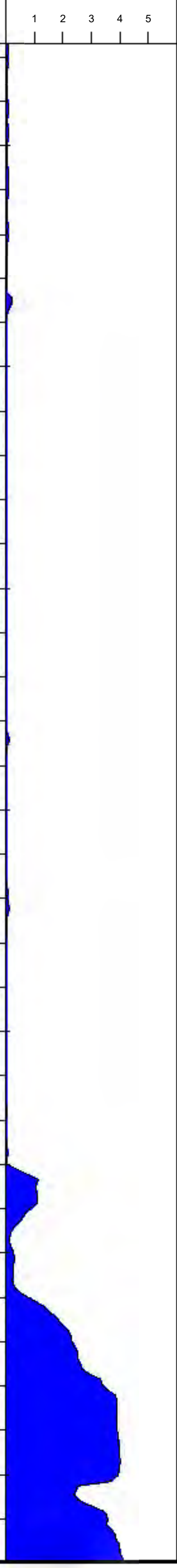
Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

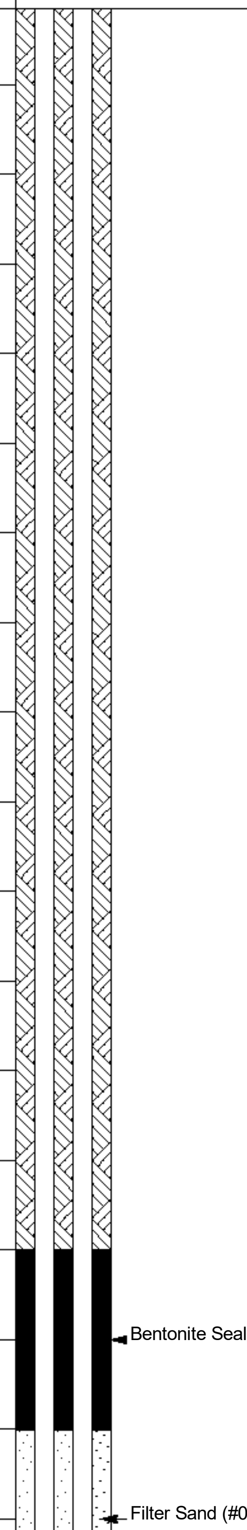
DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth	MATERIAL DESCRIPTION
32.5		DP	100	CL		Grayish Brown, CLAY, trace fine sand, soft to medium stiff, plastic, saturated. *(continued)*
	397.5					
35.0	395.0				36.5	
		DP	100	SC	37.5	Grayish Brown, CLAYEY SAND, very fine sand, semi firm, saturated.
37.5				CL	38.0	Grayish Brown, CLAY, soft, plastic, saturated.
	392.5			SC	40.0	Grayish Brown, CLAYEY SAND, very fine sand, semi firm, saturated.
40.0	390.0	DP	100	CL	41.5	Grayish Brown, SANDY CLAY, very fine sand, poorly sorted, semi firm, saturated.
				CL	42.0	Grayish Brown, CLAY, soft, plastic, saturated.
42.5	387.5			CL	44.0	Grayish Brown, SANDY CLAY, very fine sand, poorly sorted, semi firm, saturated.
45.0	385.0	DP	100	SC	47.0	Grayish Brown, CLAYEY SAND, very fine sand, poorly sorted, soft, saturated.
47.5				CL	47.5	Grayish Brown, SANDY CLAY, trace subangular fine gravel, very fine-grained sand, semi firm, saturated.
	382.5			SM	48.5	Reddish Brown, FINE TO MEDIUM SILTY SAND, trace clay, firm, wet.
				SW		Reddish Brown, MEDIUM TO COARSE GRAVELLY SAND, subrounded fine to coarse gravel, subangular sand grains, poorly sorted, loose to medium dense, wet.

PID (ppm)
0.4
0.4
0.3
0.2
0.5
0.3
0.2
0.1
0.0
0.1
0.2
0.2
0.1
0.1
0.1
0.1
0.0

WATERLOO APS (Ik)



WELL DIAGRAM



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JS-APS/B/MW-003B&C

Client: Arnold & Porter
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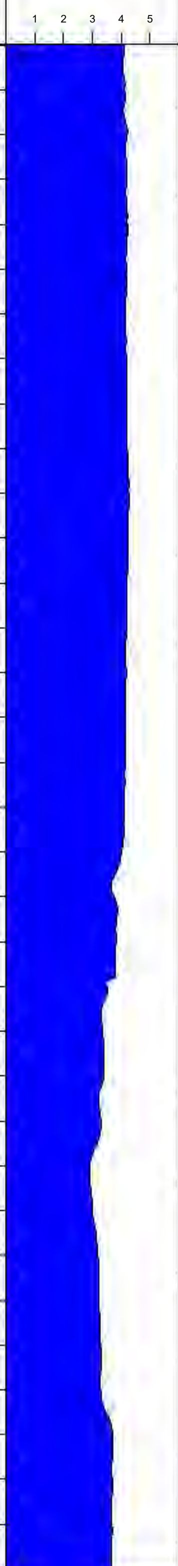
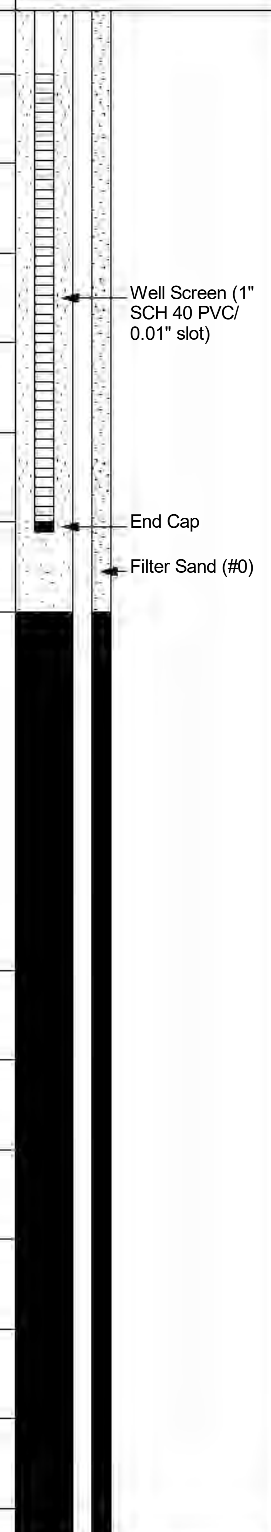
Project Number: 0378075
Project Location: Hoosick, New York

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
50.0	380.0	DP	50	SW	Reddish Brown, MEDIUM TO COARSE GRAVELLY SAND, subrounded fine to coarse gravel, subangular sand grains, poorly sorted, loose to medium dense, wet. *(continued)*	0.0, 0.0, 0.0, 2.0, 1.1
52.5	377.5	DP	75		54.0	
				GW	Grayish Brown, SANDY GRAVEL, subangular medium to coarse gravel, medium- to coarse-grained sand, poorly sorted, loose, wet.	2.3, 0.5
55.0	375.0				56.0	
57.5	372.5	DP	13	SP	Grayish Brown, FINE TO COARSE GRAVELLY SAND, fine to coarse gravel, subrounded to subangular, coarse gravel in tip, dense, wet.	0.9
60.0					60.0	
	370.0	DP	96	SW	Grayish Brown, FINE TO MEDIUM SAND, trace coarse gravel, poorly sorted, dense, wet.	0.6, 0.9, 0.6
62.5					63.0	
	367.5			SP	Reddish Brown, FINE SAND, well sorted, dense, wet. (63.5)	0.0
				SW	Reddish Brown, FINE TO MEDIUM SAND, poorly sorted, dense, wet. (64.0)	
65.0	365.0	DP	58	GW	Gray, SANDY GRAVEL, medium to coarse gravel, fine- to coarse-grained sand, some rock fragments, fining upward sequence, poorly sorted, loose, wet.	0.1, 0.0

WELL DIAGRAM



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JS-APS/B/MW-003B&C

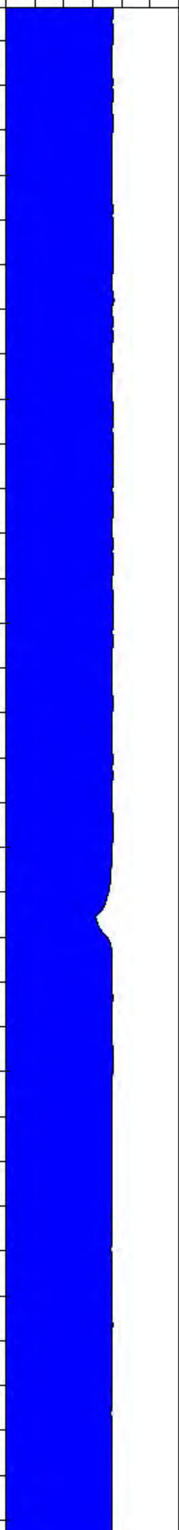
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft): 67.5, 70.0, 72.5, 75.0, 77.5, 80.0, 82.5

ELEVATION (feet amsl): 362.5, 360.0, 357.5, 355.0, 352.5, 350.0, 347.5

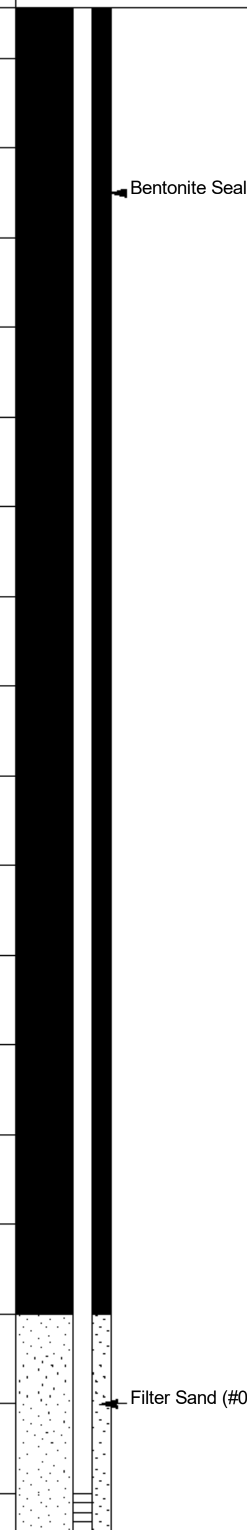
WATERLOO APS (Ik): 1 2 3 4 5



SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom Depth (ft)	MATERIAL DESCRIPTION
		GW	67.0	
		GP	68.0	Grayish Brown, FINE TO COARSE SANDY GRAVEL, subrounded fine to coarse gravel, dense, wet.
DP	75	SP	68.5	Grayish Brown, FINE TO COARSE GRAVELLY SAND, subangular fine to medium gravel, well sorted, loose, wet.
		GP	69.0	Grayish Brown, COARSE SANDY GRAVEL, subangular fine gravel, loose, wet.
		GP	69.3	Gray, MEDIUM TO COARSE GRAVEL, subrounded dense, wet.
		SW	70.0	Grayish Brown, FINE TO MEDIUM SAND, some subangular fine to medium gravel, fining upward sequence, some coarse-grained sand, well graded, loose, wet.
		GP	71.0	FINE TO COARSE GRAVEL, trace subangular and subrounded coarse sand, loose, wet.
		SP	72.0	Reddish Brown, FINE TO MEDIUM GRAVELLY SAND, some silt, fine to coarse subangular gravel, weathered bedrock fragments at base, wet.
DP	83	SW	72.5	Grayish Brown, FINE TO COARSE GRAVELLY SAND, subangular medium to coarse gravel, poorly sorted, dense, wet.
		GW	74.0	Grayish Brown, FINE TO COARSE GRAVEL, trace subrounded coarse sand, poorly sorted, wet.
		SW	74.5	Grayish Brown, FINE TO MEDIUM GRAVELLY SAND, angular fine to medium gravel, poorly sorted, semi firm, saturated.
		GP	75.0	Grayish Brown, MEDIUM TO COARSE GRAVEL, some subrounded fine to medium sand, well sorted, wet.
		GP	75.5	Grayish Brown, FINE GRAVEL, some subrounded fine to medium sand, well sorted, wet.
		GP	76.0	Grayish Brown, SANDY GRAVEL, subrounded medium to coarse gravel, fine-grained sand, loose, wet.
DP	75	SP	76.5	Brown, FINE TO MEDIUM SAND, some fine gravel, well sorted, semi firm, wet.
		GW	78.0	Gray, FINE TO COARSE GRAVEL, subrounded poorly sorted, loose, wet.
		GW	79.5	Gray, FINE TO COARSE SANDY GRAVEL, subangular fine to coarse gravel, fine- to coarse-grained sand, poorly sorted, loose, wet.
		SP	80.0	Reddish Brown, FINE TO MEDIUM GRAVELLY SAND, subangular fine to coarse gravel, rock fragments at 79.5 feet bgs, dense, wet.
DP	88	SP	80.5	Grayish Brown, FINE TO MEDIUM GRAVELLY SAND, subangular medium to coarse gravel, dense, wet.
		GP	81.5	Gray, SANDY GRAVEL, subrounded fine to coarse gravel, fine- to medium-grained sand, shale fragments, loose, wet.
		GP	83.0	Gray, FINE TO COARSE GRAVEL, some subrounded fine to medium sand, shale fragments, loose, wet.
		GP		Grayish Brown, FINE TO COARSE SANDY GRAVEL, subangular fine to medium sand, shale fragments, loose, wet.

Depth interval (ft)	PID (ppm)
66.5	~~0.1~~
67.0–68.0	0.0
68.0–69.0	0.1
69.0–70.0	0.0
70.0–71.0	0.0
71.0–72.0	0.0
72.0–73.0	0.0
73.0–74.0	0.0
74.0–75.0	0.0
75.0–76.0	0.0
76.0–77.0	0.1
77.0–78.0	0.1
78.0–79.0	0.2
79.0–80.0	0.0
80.0–81.0	0.3
81.0–82.0	0.1
82.0–83.0	0.0

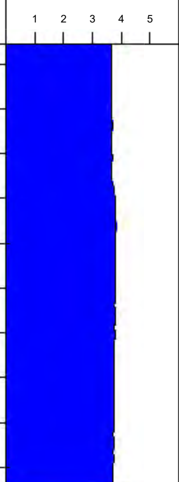
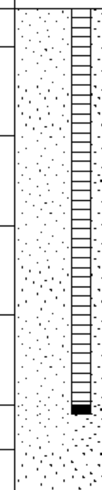
WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-003B&C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
					GP		84.0	0.0	
85.0	345.0		DP	38	GW		Grayish Brown, FINE TO COARSE SANDY GRAVEL, subrounded fine to coarse sand, fine to coarse subrounded and subangular rock fragments, poorly sorted, dense, wet. 87.0	5.0 5.0 5.0	Well Screen (1" SCH 40 PVC/ 0.01" slot)
87.5	342.5						Samples for description not available below drilling refusal depth.		End Cap Filter Sand (#0)

Bottom of APS Boring @ 88.50 ft

Bottom of Boring @ 87.00 ft

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Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-004A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

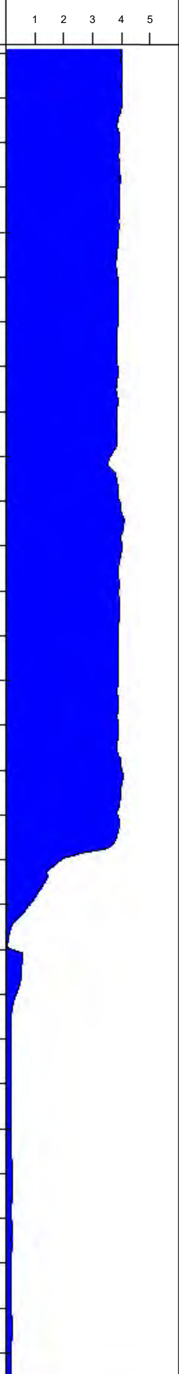
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 8/9/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 8/23/2016
DATE MW COMPLETED: 10/4/2016
GROUND ELEVATION: 432.10 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 111.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: J. Reynolds/ H. Usle
CHECKED BY: J. Fox
TOC ELEVATION: 431.73 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

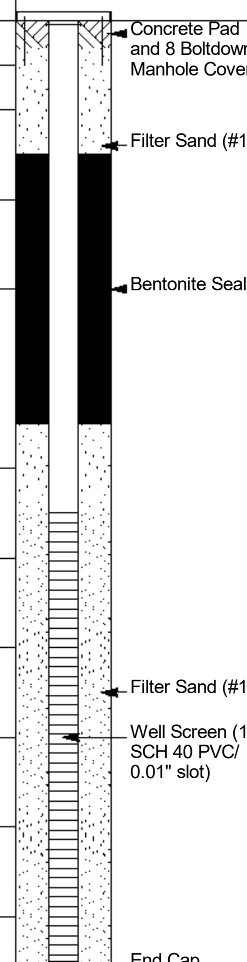
GRAPHIC LOG LEGEND
USCS Gravelly Silt; USCS Sandy Silt; USCS Poorly-graded Sand; USCS Poorly-graded Gravelly Sand; USCS Low Plasticity Clay; USCS Silt

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth	MATERIAL DESCRIPTION	PID (ppm)
0.0		HA	100	ML	0.5	Reddish Brown, GRAVELLY SILT, trace fine to medium sand, subrounded gravel, organics, loose, dry to moist.	0.5
				ML	2.0	Reddish Brown, GRAVELLY SILT, trace fine sand, fine to coarse gravel, some organics, loose, dry to moist.	0.9, 1.4
2.5	430.0			ML	5.0	SANDY SILT, some fine to coarse gravel, subangular, fine- to medium-grained sand, loose, dry.	2.1, 1.6
5.0	427.5	DP	70	SP	6.0	Dark Brown To Gray Brown, FINE SAND, some silt, trace subangular gravel (1" diameter), brick fragments, medium dense, moist.	0.1
				SP	6.5	Brown Orange, MEDIUM SAND, some subangular gravel, medium dense, dry.	0.0
7.5	425.0			SP	8.0	Gray Brown, FINE TO MEDIUM GRAVELLY SAND, subangular (1"-2" diameter), medium dense, dry.	0.0
		DP	63	SP	10.0	Brown, MEDIUM TO COARSE GRAVELLY SAND, subangular (0.5"-3" diameter), trace clay, loose to medium dense, saturated.	0.0, 0.0
10.0	422.5			CL	10.3	Brownish Gray, CLAY, soft, plastic, saturated.	0.0
12.5	420.0	DP	100	CL		Gray, CLAY, soft, plastic, saturated.	0.0, 0.0, 0.0, 0.0
15.0	417.5						

WELL DIAGRAM



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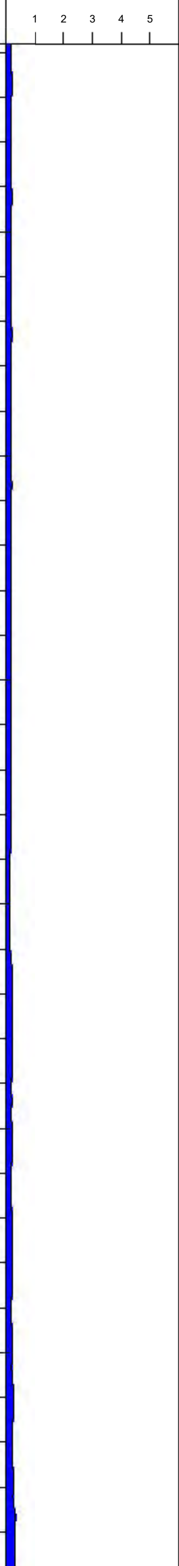
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0–20.0	415.0, 412.5		DP	100	CL		Gray, CLAY, soft, plastic, saturated. *(continued)*	0.0, 0.0, 0.0, 0.0, 0.0	
20.0–28.0	410.0, 407.5, 405.0		DP, DP	100, 100	CL		20.0 Gray, CLAY, trace silt, soft, plastic, wet to saturated.	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	
28.0–32.5	402.5, 400.0		DP	100	CL		28.0 Gray To Dark Gray, CLAY, trace silt, interbedded, soft to medium stiff, plastic, wet to saturated.	0.0, 0.0, 0.0, 0.0	

Depth marks: 15.0, 17.5, 20.0, 22.5, 25.0, 27.5, 30.0



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JS-APS/B/MW-004A

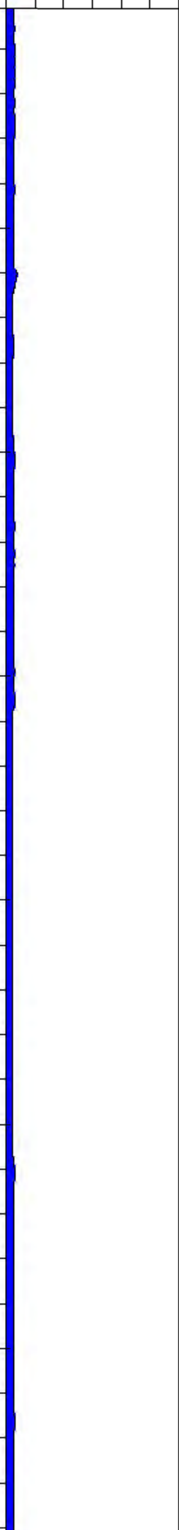
Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

Depth (ft) marks: 32.5, 35.0, 37.5, 40.0, 42.5, 45.0, 47.5

Elevation (feet amsl) marks: 397.5, 395.0, 392.5, 390.0, 387.5, 385.0

WATERLOO APS (Ik) 1 2 3 4 5



DEPTH (ft)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5–34.0	DP	100	CL	Gray To Dark Gray, CLAY, trace silt, interbedded, soft to medium stiff, plastic, wet to saturated. *(continued)*	0.0, 0.0	
34.0–34.8			ML	Dark Gray, SILT, trace fine sand and clay, soft, saturated.	0.0	
34.8–36.0			CL-ML	Dark Gray, SILTY CLAY, some very fine sand, interbedded, soft to medium stiff, saturated.	0.0	
36.0–37.0	DP	100	CL-ML	Dark Gray, SILTY CLAY, interbedded, soft to medium stiff, saturated.	0.0	
37.0–38.0			SP-SM	Dark Gray, SANDY SILT, very fine sand, soft, saturated.	0.0	
38.0–40.0			CL-ML	Dark Gray, SILTY CLAY, some fine sand, soft to medium stiff, saturated.	0.0, 0.0	
40.0–48.0	DP, DP	100, 100	CL	Dark Gray, CLAY, some silt, interbedded, non laminar, silt content decreasing with depth, soft, plastic, saturated.	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0	
48.0–			ML	Gray To Dark Gray, SILT AND CLAY, interbedded, soft to medium stiff, plastic, saturated.	0.0	

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JS-APS/B/MW-004A

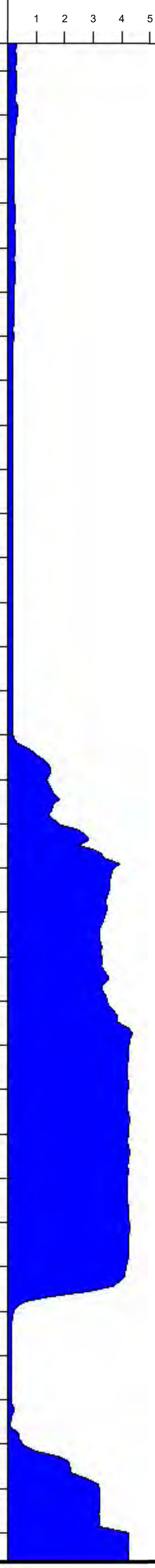
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft): 50.0, 52.5, 55.0, 57.5, 60.0, 62.5, 65.0

ELEVATION (feet amsl): 382.5, 380.0, 377.5, 375.0, 372.5, 370.0, 367.5

WATERLOO APS (Ik)



SAMPLE TYPE	RECOVERY %
DP	100
DP	100
DP	100
DP	95
DP	63

U.S.C.S.	Depth (ft)	MATERIAL DESCRIPTION
ML	52.0	Gray To Dark Gray, SILT AND CLAY, interbedded, soft to medium stiff, plastic, saturated. *(continued)*
CL	52.5	Dark Gray, CLAY, some silt, medium stiff, cohesive, saturated.
ML	53.5	Dark Gray, SILT, some clay, soft, saturated.
CL	54.0	Dark Gray, CLAY, some silt, medium stiff, cohesive, saturated.
ML	55.0	Dark Gray, SILT, soft, saturated.
CL	56.0	Dark Gray, CLAY, some silt, medium stiff, cohesive, saturated.
CL-ML	56.5	Dark Gray, SILTY CLAY, medium stiff, cohesive, saturated.
CL-ML	58.0	Dark Gray, CLAYEY SILT, soft, saturated.
CL	58.2	Dark Gray, CLAY, stiff, saturated.
CL-ML	59.5	Dark Gray, CLAYEY SILT, soft, saturated.
ML	60.0	Dark Gray, SILT, trace clay layers and fine sands, trace rounded gravel (0.5" diameter), stiff, wet.
SP-SM	63.5	Dark Gray, VERY FINE SILTY SAND, loose, saturated.
SP		Dark Gray To Black, MEDIUM TO COARSE GRAVELLY SAND, subangular to subrounded, (0.25"-1" diameter), loose, wet to saturated.

PID (ppm): 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.2, 0.2, 0.3, 0.2, 0.0, 0.0

WELL DIAGRAM

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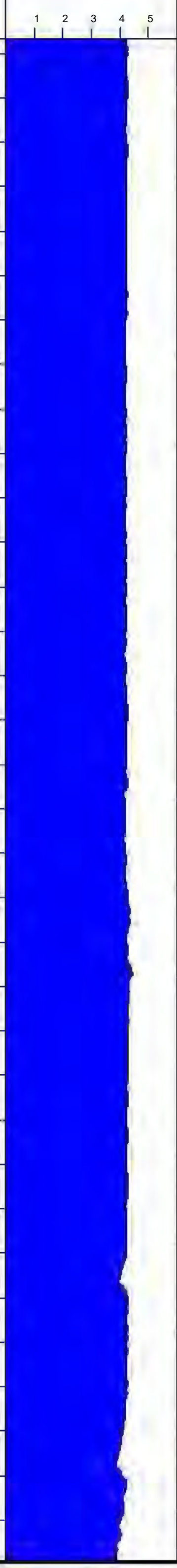
JS-APS/B/MW-004A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
67.5	365.0				SP	67.0		0.0	
70.0	362.5, 360.0		DP	50	SC-SM	72.0	Light Gray, CLAYEY COARSE SAND, some subangular gravel, (0.5" diameter), some silt, medium dense to dense, saturated.	0.0, 0.0, 0.1, 0.0, 0.0	
72.5, 75.0	357.5		DP	25	SP	76.0	Light Gray, COARSE GRAVELLY COARSE TO FINE SAND, some clay, subangular (1" diameter), loose, saturated.	0.0, 0.0, 0.0, 0.0	
77.5, 80.0	355.0, 352.5		DP	50	GW	80.0	Dark Gray, GRAVEL, some medium to coarse sand, subrounded (0.25"-1" diameter), fining upward sequence, well graded, loose, saturated.	0.0, 0.0, 0.0, 0.0	
			DP	75	SW	81.0	Gray, Red and White, COARSE SAND, rounded, fining upward sequence, well graded, loose, saturated.	0.0	
82.5	350.0				GP	83.0	Dark Gray, Green and White, GRAVEL, subangular to subrounded, (0.5"-2" diameter), saturated.	0.0, 0.0	
					SP		Dark Gray, COARSE GRAVELLY COARSE TO FINE SAND, subangular (0.5" diameter), loose, saturated.		



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Syracuse, NY 13214
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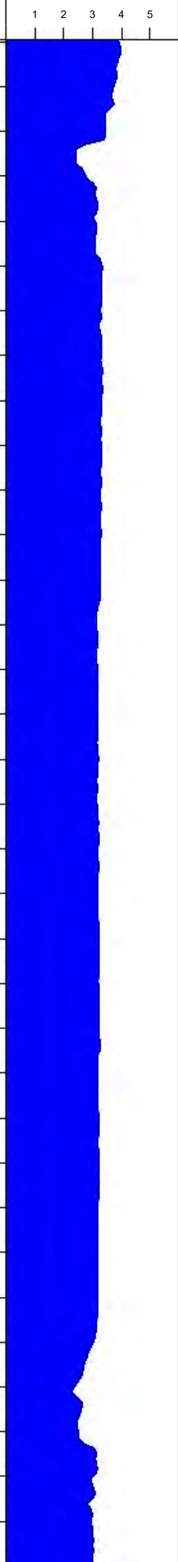
JS-APS/B/MW-004A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
–84.0				SP		0.0
84.0–92.0		DP	6	SP	Gray, COARSE SAND AND GRAVEL, some clay, subrounded to subangular (0.5"-1" diameter), poorly sorted, dense, saturated.	0.0
		DP	25			0.0
						0.1
						0.0
						0.0
92.0–93.5		DP	85	SP	Dark Gray, MEDIUM TO COARSE SAND, trace rounded fine gravel, loose, saturated.	0.0
93.5–94.5				GP	Dark Gray To Black, GRAVEL, some coarse sand, subrounded to subangular (0.5"-1" diameter), loose, saturated.	0.0
94.5–95.2				SP	Dark Gray To Black, COARSE SAND, rounded well sorted, loose, saturated.	0.0
95.2–96.0				SP	Dark Bluish-Gray, COARSE GRAVELLY COARSE TO FINE SAND, subrounded (0.5" diameter), loose, wet.	0.0
96.0–98.0		DP	45	SP	Dark Gray To Black, MEDIUM TO COARSE SAND, well sorted, loose, saturated.	0.0
						0.0
98.0–99.0				GP	Dark Gray To Black, FINE GRAVEL, some coarse sand, subrounded to subangular (0.5" diameter), loose, saturated.	0.0
99.0–100.0				SP	Gray, MEDIUM TO COARSE SAND, some clay and gravel, subangular, loose, saturated.	0.0
100.0–				SW	Dark Bluish-Gray, MEDIUM TO COARSE SAND, grading to gravelly coarse sand, subangular and subrounded (0.5"-1"	0.0

Depth scale (ft): 85.0, 87.5, 90.0, 92.5, 95.0, 97.5, 100.0
Elevation scale (feet amsl): 347.5, 345.0, 342.5, 340.0, 337.5, 335.0, 332.5

WATERLOO APS (Ik)



GRAPHIC LOG

WELL DIAGRAM

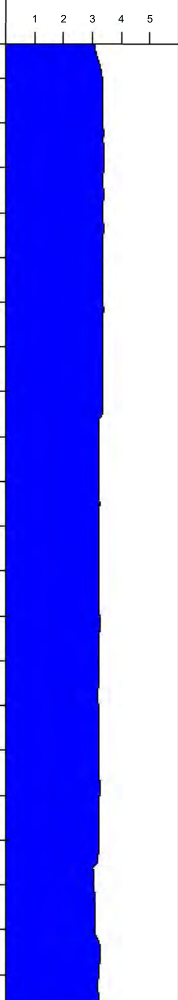
ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-004A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
					~~diameter), well graded, loose, saturated.~~		
102.5	330.0	DP	33	SW	Dark Bluish-Gray, MEDIUM TO COARSE SAND, grading to gravelly coarse sand, subangular and subrounded (0.5"-1" diameter), well graded, loose, saturated. *(continued)*	0.0 0.0 0.1	
104.0							
105.0	327.5	DP	50	SP	Dark Gray, FINE TO COARSE SAND, well sorted, loose, saturated.	0.0 0.0	
106.0							
107.5	325.0			SP	Dark Gray, COARSE GRAVELLY COARSE TO FINE SAND, subrounded and subangular (1"-2" diameter), loose, saturated.	0.0 0.0	
108.0							
110.0	322.5	DP	8	SP	Grayish Blue, COARSE GRAVELLY COARSE TO FINE SAND, subangular (0.5"-1" diameter), laminar toward base with light-brown and greenish layering, green/blue shale fragments at base, dense.	0.1 0.1 0.1 0.1	
111.2							

Bottom of APS Boring @ 111.50 ft

Bottom of Boring @ 111.20 ft

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Syracuse, NY 13214
Telephone: (315) 445-2554

JS-APS/B/MW-004B&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

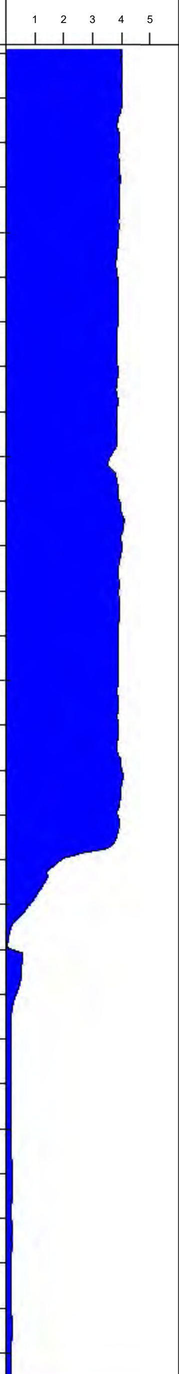
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 8/9/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 8/23/2016
DATE MW COMPLETED: 10/4/2016
GROUND ELEVATION: 432.10 feet amsl
NOTES:

DRILLING METHOD: HSA/ Drive and Wash
TOTAL DEPTH: 111.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: J. Reynolds/ H. Usle
CHECKED BY: J. Fox
TOC ELEVATION: 431.73 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Gravelly Silt; USCS Sandy Silt; USCS Poorly-graded Sand; USCS Poorly-graded Gravelly Sand; USCS Low Plasticity Clay; USCS Silt

WATERLOO APS (Ik)

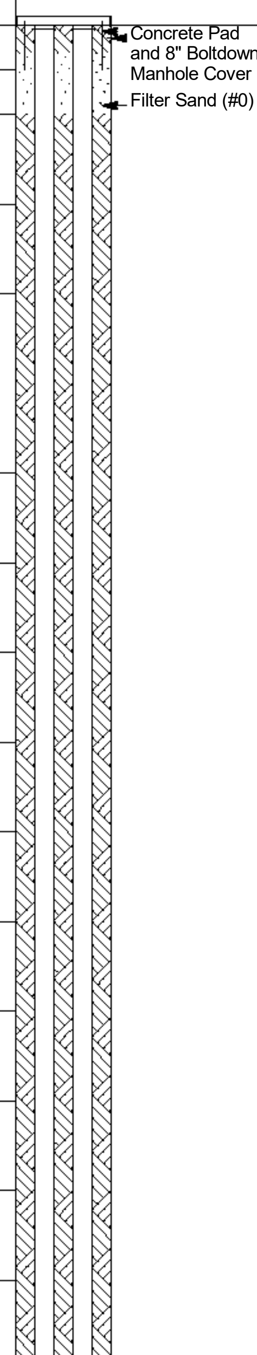


DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION
0.0–0.5	432.10	HA	100	ML	Reddish Brown, GRAVELLY SILT, trace fine to medium sand, subrounded gravel, organics, loose, dry to moist.
0.5–2.0		HA		ML	Reddish Brown, GRAVELLY SILT, trace fine sand, fine to coarse gravel, some organics, loose, dry to moist.
2.0–5.0	430.0	HA		ML	SANDY SILT, some fine to coarse gravel, subangular, fine- to medium-grained sand, loose, dry.
5.0–6.0	427.5	DP	70	SP	Dark Brown To Gray Brown, FINE SAND, some silt, trace subangular gravel (1" diameter), brick fragments, medium dense, moist.
6.0–6.5		DP		SP	Brown Orange, MEDIUM SAND, some subangular gravel, medium dense, dry.
6.5–8.0	425.0	DP		SP	Gray Brown, FINE TO MEDIUM GRAVELLY SAND, subangular (1"-2" diameter), medium dense, dry.
8.0–10.0	422.5	DP	63	SP	Brown, MEDIUM TO COARSE GRAVELLY SAND, subangular (0.5"-3" diameter), trace clay, loose to medium dense, saturated.
10.0–10.3		DP		CL	Brownish Gray, CLAY, soft, plastic, saturated.
10.3–15.0	420.0 / 417.5	DP	100	CL	Gray, CLAY, soft, plastic, saturated.

Depth scale: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0. Elevation scale: 430.0, 427.5, 425.0, 422.5, 420.0, 417.5.

PID (ppm)
0.5
0.9
1.4
2.1
1.6
0.1
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

WELL DIAGRAM



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JS-APS/B/MW-004B&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0								0.0	
	415.0							0.0	
17.5			DP	100	CL		Gray, CLAY, soft, plastic, saturated. *(continued)*	0.0	
								0.0	
	412.5							0.0	
20.0							20.0	0.0	
								0.0	
	410.0		DP	100				0.0	
22.5								0.0	Bentonite Grout Seal
	407.5				CL		Gray, CLAY, trace silt, soft, plastic, wet to saturated.	0.0	
25.0			DP	100				0.0	
	405.0							0.0	
27.5							28.0	0.0	
								0.0	
	402.5							0.0	
30.0			DP	100	CL		Gray To Dark Gray, CLAY, trace silt, interbedded, soft to medium stiff, plastic, wet to saturated.	0.0	
	400.0							0.0	

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Syracuse, NY 13214
Telephone: (315) 445-2554

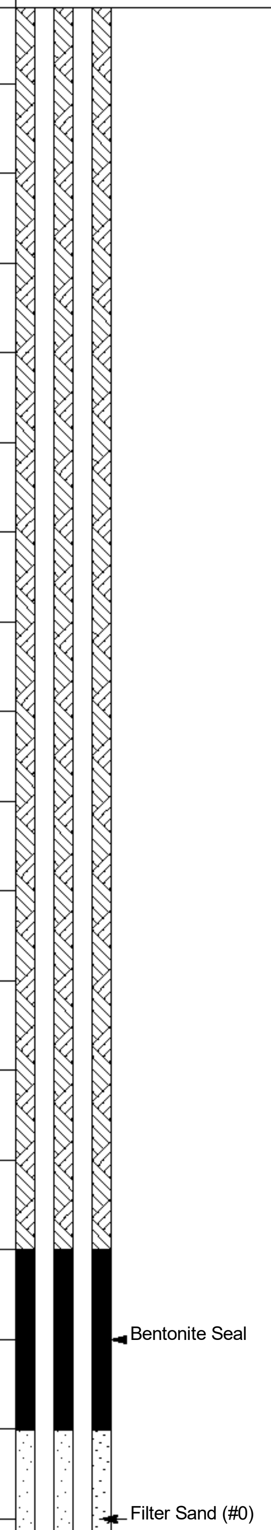
JS-APS/B/MW-004B&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth	MATERIAL DESCRIPTION	PID (ppm)
32.5			DP	100	CL	34.0	Gray To Dark Gray, CLAY, trace silt, interbedded, soft to medium stiff, plastic, wet to saturated. *(continued)*	0.0, 0.0
	397.5				ML	34.8	Dark Gray, SILT, trace fine sand and clay, soft, saturated.	0.0
35.0					CL-ML	36.0	Dark Gray, SILTY CLAY, some very fine sand, interbedded, soft to medium stiff, saturated.	0.0
	395.0		DP	100	CL-ML	37.0	Dark Gray, SILTY CLAY, interbedded, soft to medium stiff, saturated.	0.0
37.5					SP-SM	38.0	Dark Gray, SANDY SILT, very fine sand, soft, saturated.	0.0
	392.5				CL-ML	40.0	Dark Gray, SILTY CLAY, some fine sand, soft to medium stiff, saturated.	0.0, 0.0
40.0	390.0		DP	100	CL	48.0	Dark Gray, CLAY, some silt, interbedded, non laminar, silt content decreasing with depth, soft, plastic, saturated.	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0
42.5, 45.0, 47.5	387.5, 385.0		DP	100				
					ML		Gray To Dark Gray, SILT AND CLAY, interbedded, soft to medium stiff, plastic, saturated.	0.0

WELL DIAGRAM



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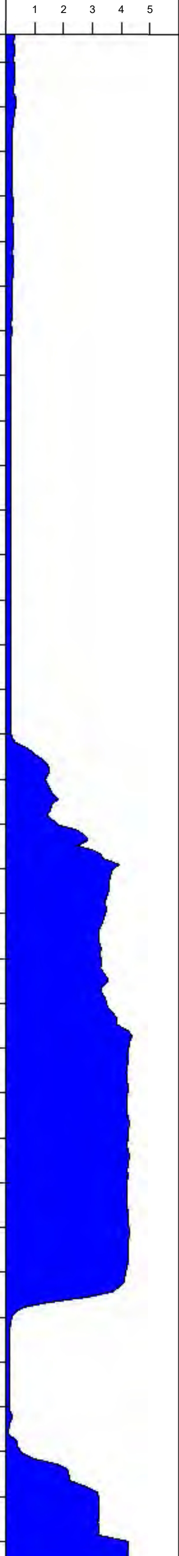
JS-APS/B/MW-004B&C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

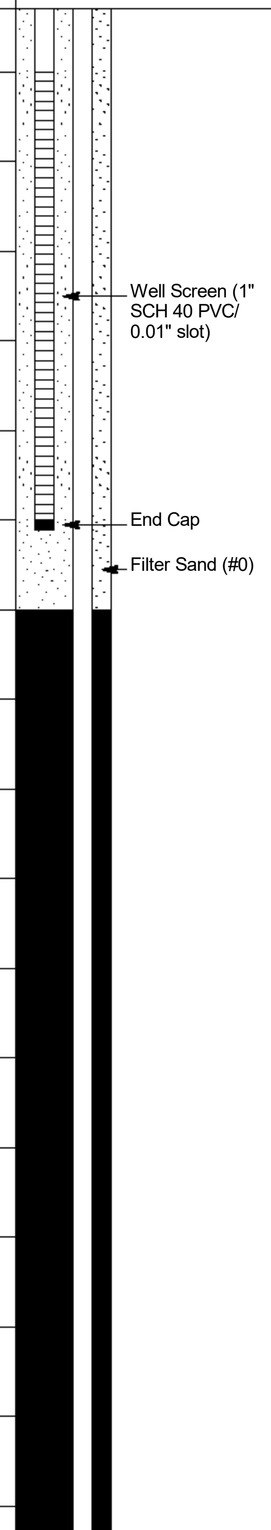
DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth	MATERIAL DESCRIPTION
50.0	382.5	DP	100	ML	52.0	Gray To Dark Gray, SILT AND CLAY, interbedded, soft to medium stiff, plastic, saturated. *(continued)*
52.5	380.0	DP	100	CL	52.5	Dark Gray, CLAY, some silt, medium stiff, cohesive, saturated.
				ML	53.5	Dark Gray, SILT, some clay, soft, saturated.
				CL	54.0	Dark Gray, CLAY, some silt, medium stiff, cohesive, saturated.
55.0	377.5			ML	55.0	Dark Gray, SILT, soft, saturated.
				CL	56.0	Dark Gray, CLAY, some silt, medium stiff, cohesive, saturated.
		DP	100	CL-ML	56.5	Dark Gray, SILTY CLAY, medium stiff, cohesive, saturated.
57.5	375.0			CL-ML	58.0	Dark Gray, CLAYEY SILT, soft, saturated.
				CL	58.2	Dark Gray, CLAY, stiff, saturated.
				CL-ML	59.5	Dark Gray, CLAYEY SILT, soft, saturated.
60.0	372.5			ML	60.0	Dark Gray, SILT, trace clay layers and fine sands, trace rounded gravel (0.5" diameter), stiff, wet.
62.5	370.0	DP	95	SP-SM	63.5	Dark Gray, VERY FINE SILTY SAND, loose, saturated.
65.0	367.5	DP	63	SP		Dark Gray To Black, MEDIUM TO COARSE GRAVELLY SAND, subangular to subrounded, (0.25"-1" diameter), loose, wet to saturated.

WATERLOO APS (Ik)



PID (ppm): 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.2, 0.2, 0.3, 0.2, 0.0, 0.0

WELL DIAGRAM



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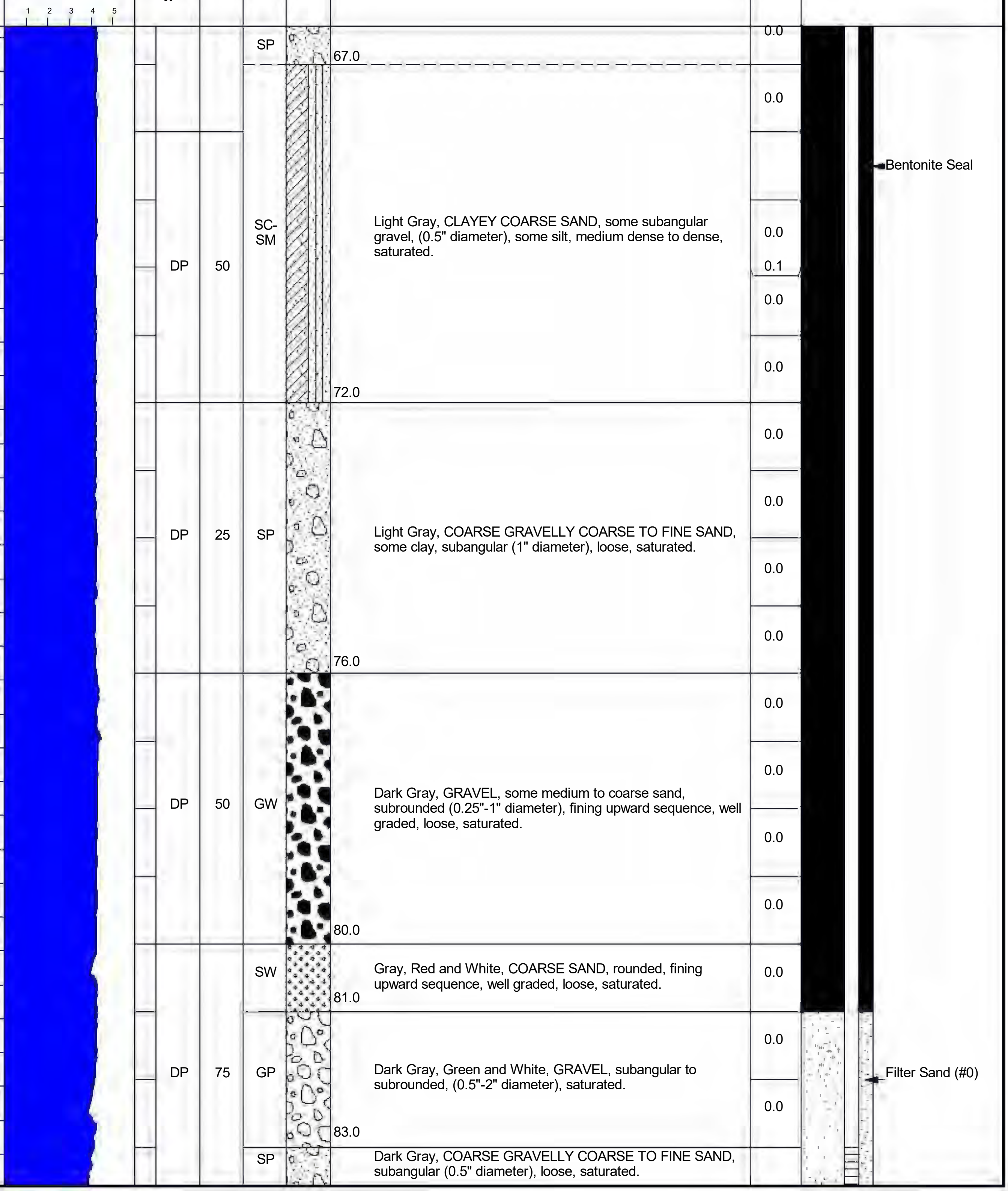
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth (ft)	MATERIAL DESCRIPTION	PID (ppm)
	365.0			SP	67.0		0.0
67.5	362.5	DP	50	SC-SM	72.0	Light Gray, CLAYEY COARSE SAND, some subangular gravel, (0.5" diameter), some silt, medium dense to dense, saturated.	0.0, 0.0, 0.1, 0.0, 0.0
70.0, 72.5, 75.0	360.0, 357.5	DP	25	SP	76.0	Light Gray, COARSE GRAVELLY COARSE TO FINE SAND, some clay, subangular (1" diameter), loose, saturated.	0.0, 0.0, 0.0, 0.0
77.5, 80.0	355.0, 352.5	DP	50	GW	80.0	Dark Gray, GRAVEL, some medium to coarse sand, subrounded (0.25"-1" diameter), fining upward sequence, well graded, loose, saturated.	0.0, 0.0, 0.0, 0.0
				SW	81.0	Gray, Red and White, COARSE SAND, rounded, fining upward sequence, well graded, loose, saturated.	0.0
82.5	350.0	DP	75	GP	83.0	Dark Gray, Green and White, GRAVEL, subangular to subrounded, (0.5"-2" diameter), saturated.	0.0, 0.0
				SP		Dark Gray, COARSE GRAVELLY COARSE TO FINE SAND, subangular (0.5" diameter), loose, saturated.	

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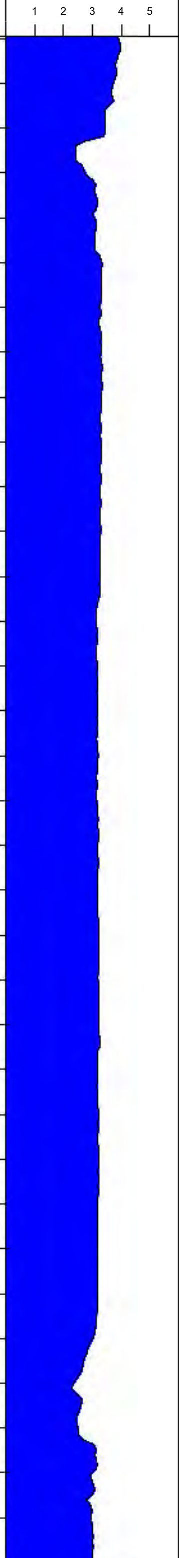
JS-APS/B/MW-004B&C

Client: Arnold & Porter
Project Number: 0378075
Project Name: Hoosick
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)
	347.5
85.0	
	345.0
87.5	
	342.5
90.0	
	340.0
92.5	
	337.5
95.0	
	335.0
97.5	
	332.5
100.0	

WATERLOO APS (Ik)

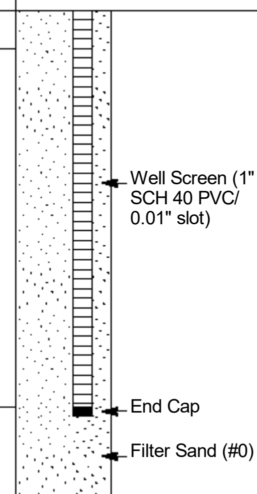


Bottom Depth (ft)	U.S.C.S.	MATERIAL DESCRIPTION
84.0	SP	
92.0	SP	Gray, COARSE SAND AND GRAVEL, some clay, subrounded to subangular (0.5"-1" diameter), poorly sorted, dense, saturated.
93.5	SP	Dark Gray, MEDIUM TO COARSE SAND, trace rounded fine gravel, loose, saturated.
94.5	GP	Dark Gray To Black, GRAVEL, some coarse sand, subrounded to subangular (0.5"-1" diameter), loose, saturated.
95.2	SP	Dark Gray To Black, COARSE SAND, rounded well sorted, loose, saturated.
96.0	SP	Dark Bluish-Gray, COARSE GRAVELLY COARSE TO FINE SAND, subrounded (0.5" diameter), loose, wet.
98.0	SP	Dark Gray To Black, MEDIUM TO COARSE SAND, well sorted, loose, saturated.
99.0	GP	Dark Gray To Black, FINE GRAVEL, some coarse sand, subrounded to subangular (0.5" diameter), loose, saturated.
100.0	SP	Gray, MEDIUM TO COARSE SAND, some clay and gravel, subangular, loose, saturated.
	SW	Dark Bluish-Gray, MEDIUM TO COARSE SAND, grading to gravelly coarse sand, subangular and subrounded (0.5"-1"

SAMPLE TYPE	RECOVERY %
DP	6
DP	25
DP	85
DP	45

PID (ppm): 0.0, 0.0, 0.0, 0.1, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0

WELL DIAGRAM



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JS-APS/B/MW-004B&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	330.0		DP	33	SW		~~diameter), well graded, loose, saturated.~~	0.0	
102.5							Dark Bluish-Gray, MEDIUM TO COARSE SAND, grading to gravelly coarse sand, subangular and subrounded (0.5"-1" diameter), well graded, loose, saturated. *(continued)*	0.0	
						104.0		0.1	
	327.5		DP	50	SP		Dark Gray, FINE TO COARSE SAND, well sorted, loose, saturated.	0.0	
105.0						106.0		0.0	
	325.0				SP		Dark Gray, COARSE GRAVELLY COARSE TO FINE SAND, subrounded and subangular (1"-2" diameter), loose, saturated.	0.0	
107.5						108.0		0.0	
	322.5		DP	8	SP		Grayish Blue, COARSE GRAVELLY COARSE TO FINE SAND, subangular (0.5"-1" diameter), laminar toward base with light-brown and greenish layering, green/blue shale fragments at base, dense.	0.1	
110.0								0.1	
								0.1	
						111.2		0.1	

Bottom of APS Boring @ 111.50 ft

Bottom of Boring @ 111.20 ft

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Syracuse, NY 13214
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JS-APS/B/MW-005A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

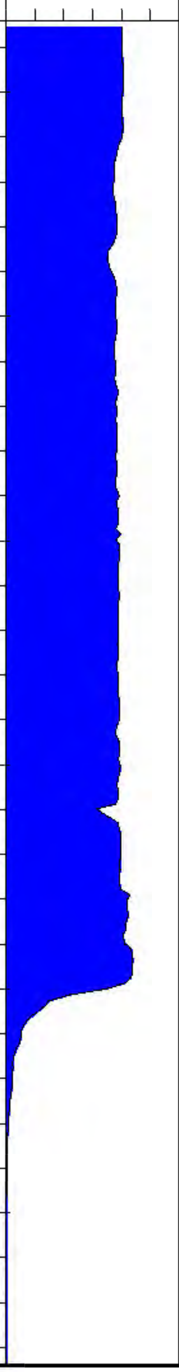
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 8/4/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 8/25/2016
DATE MW COMPLETED: 10/4/2016
GROUND ELEVATION: 433.30 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 112.2 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: H. Usle/ B. Lynch
CHECKED BY: J. Reynolds
TOC ELEVATION: 433.00 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

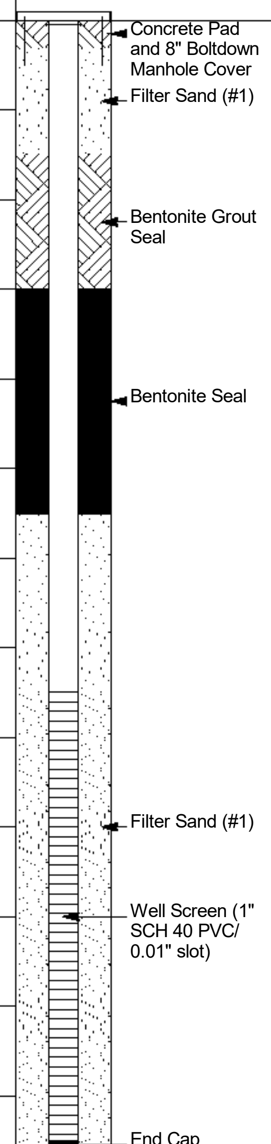
GRAPHIC LOG LEGEND
Topsoil
USCS Silty Sand
USCS Poorly-graded Sand with Clay
USCS Silt
USCS Sandy Silt
USCS Poorly-graded Sand

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–1.0	432.5	HA	75	OH	Dark Brown, TOPSOIL, with subangular fine to medium gravelly sand, 1" diameter quartz gravel, medium dense, dry.	0.0
1.0–1.5				SM	Black, VERY FINE SILTY SAND, loose, dry.	0.1
1.5–3.5	430.0			SP-SC	Light Gray To Brown, FINE TO MEDIUM SAND, some clay and gravel, subangular gravel (0.5" diameter), dense, moist.	0.0, 0.0
3.5–4.0				ML	Grayish Brown, SILT, some fine gravelly sand, gravel (0.25" diameter), medium stiff to stiff, dry to moist.	
4.0–5.0		DP	80	SP-SC	Grayish Brown, FINE TO COARSE SAND, some clay, medium dense, dry to moist, trace mottling.	0.1
5.0–6.0	427.5			ML	Dark Brown To Brown, SANDY SILT, some subrounded fine gravel, (0.5" diameter), shale fragments, soft to medium stiff, dry to moist.	0.1
6.0–6.5				SP	Brown, MEDIUM TO COARSE SAND, loose, dry to moist.	0.1
6.5–7.5				SM	Brownish Gray, SILTY SAND, some subangular gravel, (0.25"-0.5" diameter), white particulates, coal and metal fragments and oxidation, soft, moist.	0.1
7.5–8.0				GP	Brown, MEDIUM TO COARSE GRAVEL, some rounded medium sand, (I" diameter), loose, dry.	
8.0–8.5	425.0	DP	63	SP-SM	Brown To Dark Brown, FINE TO MEDIUM SAND, some silt and gravel, subangular gravel (0.25" diameter), loose, moist.	0.1
8.5–9.0				SP	Brown, MEDIUM TO COARSE SAND, some subangular gravel, (0.25" diameter), trace silt, loose, wet.	
9.0–11.0	422.5			GP	Light Brown, FINE GRAVEL, some fine to medium sand, subangular gravel (0.5"-1.5" diameter), shale fragments, trace clay, loose, saturated.	0.1, 0.1
11.0–12.0				CL	Brownish Gray, CLAY, soft, plastic, saturated.	0.1
12.0–15.0	420.0	DP	80	CL	Gray, CLAY, soft, plastic, saturated.	0.1, 0.1, 0.1

WELL DIAGRAM



Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	417.5				CL		Gray, CLAY, soft, plastic, saturated. *(continued)*	0.1	
			DP	56				0.0	
17.5	415.0							0.0	
								0.0	
								0.0	
20.0	412.5		DP	38				0.0	
								0.0	
22.5	410.0							0.0	
								0.0	
25.0	407.5		DP	38				0.0	
								0.0	
27.5	405.0							0.0	
								0.0	
30.0	402.5		DP	50				0.0	
								0.0	
								0.0	
								0.0	

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Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick
Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5	400.0		DP	25	CL		Gray, CLAY, soft, plastic, saturated. *(continued)*	0.0	
								0.0	
35.0	397.5							0.0	
						36.0		0.0	
37.5	395.0		DP	0			No Recovery.		
40.0	392.5		DP	0					
42.5	390.0					44.0			
45.0	387.5		DP	63	CL		Gray, CLAY, tight, plastic, saturated.	0.0	
								0.0	
								0.0	
47.5	385.0					48.0		0.0	
					CL-ML		Gray To Dark Gray, SILT, interbedded clay, cohesive, plastic, soft to stiff, saturated.	0.0	

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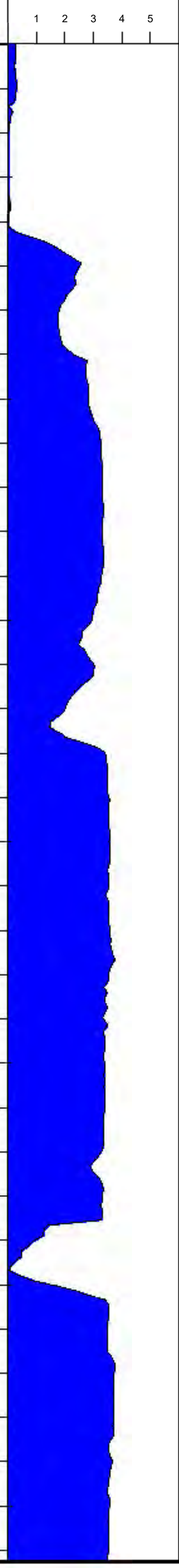
JS-APS/B/MW-005A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)
50.0	382.5	
52.5	380.0	
55.0	377.5	
57.5	375.0	
60.0	372.5	
62.5	370.0	
65.0	367.5	

SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG (bottom depth)	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
DP	83	CL-ML	52.0	Gray To Dark Gray, SILT, interbedded clay, cohesive, plastic, soft to stiff, saturated. *(continued)*	0.0, 0.0, 0.0	
DP	63	SM	53.0	Gray, FINE SILTY SAND, some clay, saturated.		
		SP	53.5	Gray, MEDIUM TO COARSE SAND, saturated.	0.0	
		ML	55.0	Gray, SILT, interbedded clay, medium stiff, saturated.	0.0, 0.0	
		SP	56.0	Gray, MEDIUM TO COARSE SAND, with fine to medium gravel, subangular and subrounded, saturated.	0.0	
DP	100	SM	58.0	Gray, FINE SILTY SAND, little rounded fine gravel, saturated.		
		CL-ML	59.5	Gray, SILT, interbedded clay, soft, saturated.		
DP	50	SP	64.0	Gray, MEDIUM TO COARSE SAND, with rounded fine to medium gravel, saturated.	0.0	
DP	25	GP		Gray, MEDIUM SANDY GRAVEL AND SILT, little subrounded clay, saturated.	0.0	

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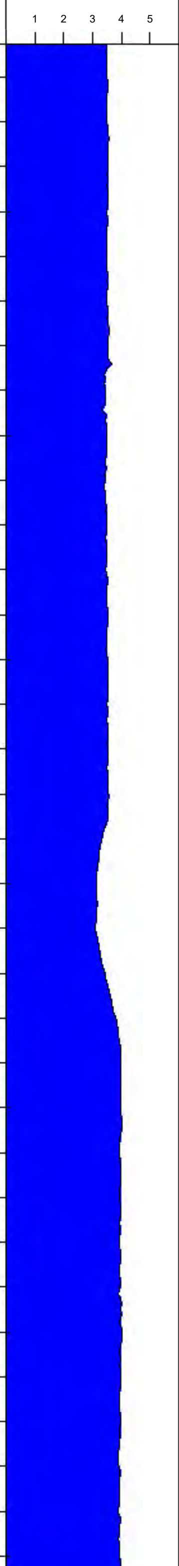
JS-APS/B/MW-005A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
67.5	365.0			GP	Gray, MEDIUM SANDY GRAVEL AND SILT, little subrounded clay, saturated. *(continued)* 68.0		
70.0	362.5	DP	13	GP	Gray, FINE TO MEDIUM GRAVEL, with coarse sand and silt, subangular, saturated. 72.0	0.0 0.0 0.0 0.0	
72.5 75.0	360.0 357.5	DP	38	GP	Gray, MEDIUM SANDY GRAVEL, some silt, medium- to coarse-grained sand, well sorted, saturated. 76.0	0.0 0.0 0.0 0.0	
77.5 80.0	355.0	DP	50	GP	Gray, FINE TO COARSE SANDY GRAVEL, little silt, well sorted, saturated. 80.0	0.0 0.0 0.0 0.0	
	352.5	DP	50	SP	Gray, MEDIUM TO COARSE SAND, little silt, saturated. 82.0	0.0 0.0	
82.5	350.0			GP	Gray, FINE TO COARSE SANDY GRAVEL, some silt, saturated.	0.0	

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JS-APS/B/MW-005A

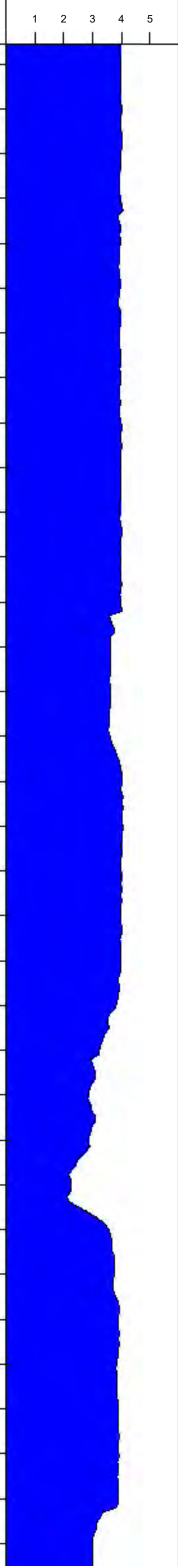
Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

WATERLOO APS (Ik)



DEPTH (ft)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
84.0			GP		0.0
84.0–88.0	DP	50	GP	Gray, FINE TO COARSE SANDY GRAVEL, with silt, well sorted, saturated.	0.0, 0.0, 0.0, 0.0
88.0–91.0	DP	31	GP	Dark Gray, FINE TO COARSE SANDY GRAVEL, some silt, subangular gravel, well sorted, saturated.	0.0, 0.0, 0.0
91.0–92.0			SP	Dark Gray, MEDIUM SAND, with subrounded fine to medium gravel, saturated.	0.0
92.0–100.0				Samples for description not available below drilling refusal depth.	

Depth scale (ft): 85.0, 87.5, 90.0, 92.5, 95.0, 97.5, 100.0

Elevation (feet amsl): 347.5, 345.0, 342.5, 340.0, 337.5, 335.0

WELL DIAGRAM

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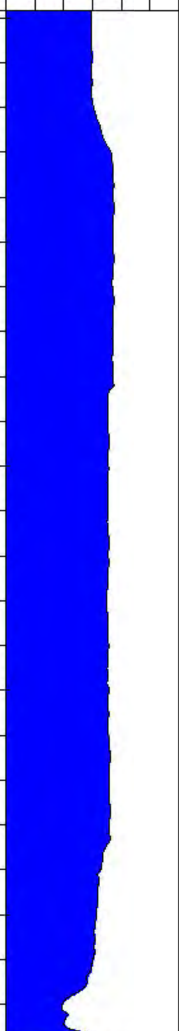
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	332.5						Samples for description not available below drilling refusal depth. *(continued)*		
102.5	330.0								
105.0	327.5								
107.5	325.0								
110.0	322.5								

Bottom of APS Boring @ 112.20 ft

Bottom of Boring @ 92.00 ft

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

JS-B-006

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 11/28/2016
DATE MW COMPLETED: Not Applicable
GROUND ELEVATION: 427.50 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 24 feet bgs
DIAMETER: 1.25 inches
LOGGED BY: R. Holt
CHECKED BY: H. Usle
TOC ELEVATION: Not Applicable

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Sand
USCS Poorly-graded Sand with Silt
USCS Poorly-graded Gravelly Sand
USCS Low Plasticity Silty Clay
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0	427.5								
								0.1	
								0.1	
2.5	425.0		HA	100				0.1	
					SP		Dark Brown, FINE TO COARSE SAND, some subangular gravel, trace cobbles, brick fragments at 4 feet bgs, black fine- to medium-grained sand at 4.5 feet bgs, loose, dry to moist.	0.3	
								5.8	
5.0	422.5							0.3	
			DP	50		7.0		0.3	
7.5	420.0				SP-SM	7.3	Brown, FINE TO MEDIUM SAND, with silt, moist.	0.0	
								0.0	
								0.3	
10.0	417.5		DP	50	SP		Light Gray, FINE TO COARSE SAND, and angular gravel, gravel layer at 8.5 feet bgs (0.25" thick), red fine- to coarse-grained sand at 10 feet bgs (0.25" thick), moist.	0.2	
								0.5	
12.5	415.0					13.0		0.0	
								0.0	
			DP	31	SP		Brown, FINE TO COARSE SAND, very moist.	0.0	
15.0	412.5					15.0			

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JS-B-006

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	412.5	1 2 3 4 5							
					SP	16.5	Light Brown, FINE TO COARSE SAND, and angular gravel, wet.	0.0	
			DP	100				1.8	
17.5	410.0				CL-ML	18.0	Light Brown, CLAYEY SILT, semi firm, wet to saturated.	31.8	
					CL-ML	19.0	Light Brown, SILTY CLAY, soft, saturated.	52.0	
20.0	407.5							14.2	
			DP	100	CL	24.0	Grayish Brown, CLAY, trace silt, soft, saturated.	0.2	
								0.0	
22.5	405.0							0.0	
								0.0	

Bottom of Boring @ 24.00 ft

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Telephone: (315) 445-2554

JS-B-007

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 11/30/2016
DATE MW COMPLETED: Not Applicable
GROUND ELEVATION: 427.90 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 24 feet bgs
DIAMETER: 1.25 inches
LOGGED BY: R. Holt
CHECKED BY: H. Usle
TOC ELEVATION: Not Applicable

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Gravel
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Sand
USCS Poorly-graded Sand with Silt
USCS Poorly-graded Sand with Clay
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0	427.5		HA		GP	0.5	Gray, GRAVEL.	0.0	
					SP	2.0	Gray, SAND AND GRAVEL, trace clay, no odor, loose, dry to moist.	0.0	
2.5	425.0				SP	4.0	Brown, COARSE SAND, some rounded gravel, no odor, loose, dry to moist.	0.1 0.1	
5.0	422.5		DP	200	SP	6.0	Brown To Black, FINE TO COARSE SAND, and subrounded gravel, loose, moist.	0.5 1.5	
					SP-SM	7.7	SILTY FINE SAND, trace clay, oxide stringers, medium dense, moist.	1.7 1.3	
7.5	420.0				SP	8.0	FINE TO COARSE SAND, and subrounded gravel, loose, moist.		
10.0	417.5		DP	50	SP	11.0	Grayish Brown To Blackish Orange, FINE TO COARSE SAND, and gravel, medium dense, moist.	0.7 0.7 0.7	
					SP-SC	11.5	Grayish Brown To Blackish Orange, FINE TO COARSE SAND AND GRAVEL, and clay, medium dense, saturated.	0.1	
					CL	12.0	Gray, CLAY, firm, low plasticity, saturated, mottling.		
12.5	415.0		DP	100	CL		Gray, CLAY, plastic, saturated.	1.0 0.3 0.5	
15.0									

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Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	412.5				CL		Gray, CLAY, plastic, saturated. *(continued)*	0.5	
								0.5	
17.5	410.0		DP	100				0.4	
								0.2	
							19.7	0.4	
20.0	407.5				CL-ML		Black To Gray, CLAY, with fine silty sand, saturated.	0.4	
							21.0		
			DP	100	CL		Gray, CLAY, plastic, saturated.	0.3	
22.5	405.0						22.7	0.3	
					CL-ML		Gray To Dark Gray, SILT AND CLAY, medium plasticity, saturated.	0.3	
							23.5		
					CL		Gray, CLAY, plastic, saturated.		
							24.0		

Bottom of Boring @ 24.00 ft

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JS-B-008

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR:	Not Applicable	**DRILLING METHOD:**	Hand Auger/ Direct Push
DATE APS COMPLETED:	Not Applicable	**TOTAL DEPTH:**	24 feet bgs
B/MW CONTRACTOR:	Parratt Wolff, Inc.	**DIAMETER:**	1.25 inches
DATE B COMPLETED:	12/1/2016	**LOGGED BY:**	R. Holt
DATE MW COMPLETED:	Not Applicable	**CHECKED BY:**	H. Usle
GROUND ELEVATION:	428.10 feet amsl	**TOC ELEVATION:**	Not Applicable
NOTES:			

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Gravel
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Sand with Silt
USCS Poorly-graded Sand
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION
0.0–0.5			DP	63	GP	Gray, GRAVEL, moist.
0.5–4.5					SP	Brown, FINE TO COARSE SAND, and subangular gravel, orange debris at 3.5 feet bgs, loose, moist.
4.5–4.8			DP	56	SP-SM	Black, SANDY SILT, trace clay, soft, low plasticity, wet.
4.8–8.0					SP	Brown, FINE TO COARSE SAND, and subangular gravel, orange and black debris at 6.5 and 7 feet bgs.
8.0–11.3			DP	56	SP	Brown, FINE TO COARSE SAND, and subangular and subrounded gravel, loose, moist to wet.
11.3–12.5					SP	Brown To Black, FINE TO MEDIUM SAND, coarsening downward, wet.
12.5–14.5			DP	50	CL	Light Brown, CLAY, trace silt and fine sand, soft, plastic, saturated.
14.5–					CL	Light Gray, CLAY, soft, plastic, saturated.

Depth scale: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0
Elevation scale: 427.5, 425.0, 422.5, 420.0, 417.5, 415.0
Waterloo APS (Ik) scale: 1 2 3 4 5

Depth interval (ft)	PID (ppm)
0–1	0.4
1–2	0.3
2–3	0.4
3–4	0.4
4–5	1.7
5–6	2.5
6–7	2.0
7–8	1.4
8–9	1.0
9–10	1.0
10–11	0.8
11–12	1.1
12–13	0.8
13–14	0.7
14–15	0.9

WELL DIAGRAM

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JS-B-008

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	412.5							0.8	
								0.6	
17.5	410.0		DP	100	CL		Light Gray, CLAY, soft, plastic, saturated. *(continued)*	0.6	
								0.5	
20.0							20.0	0.5	
	407.5							0.1	
			DP	100	SP-SM		Gray To Black, FINE SAND AND SILT, with clay, soft, low plasticity, saturated.	0.7	
22.5	405.0						23.0	0.3	
					CL		Light Gray, CLAY, soft, plastic, saturated. 24.0	0.4	

Bottom of Boring @ 24.00 ft

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JS-B-009

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 11/30/2016
DATE MW COMPLETED: Not Applicable
GROUND ELEVATION: 429.80 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 24 feet bgs
DIAMETER: 1.25 inches
LOGGED BY: R. Holt
CHECKED BY: H. Usle
TOC ELEVATION: Not Applicable

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
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Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Gravel
USCS Poorly-graded Gravelly Sand
USCS Low Plasticity Clay
USCS Poorly-graded Sand

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0									
			HA	100	GP	0.5	Light Gray, GRAVEL, angular loose, dry.	0.2	
								0.3	
2.5	427.5							0.1	
					SP		Gray To Brown, FINE TO COARSE SAND, and gravel, crushed rock fragments, loose, moist.	0.2	
5.0	425.0							0.1	
			DP	25				1.0	
						7.0		1.1	
7.5	422.5				SP		Brown, FINE TO COARSE SAND, and gravel, loose, saturated.	1.0	
						8.5		1.3	
10.0	420.0		DP	75				4.1	
								1.6	
					CL		Gray, CLAY, medium plasticity, medium stiffness, saturated.	6.1	
12.5	417.5							1.0	
			DP	100				0.1	
15.0	415.0							0.3	

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JS-B-009

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0		1 2 3 4 5							
					CL		Gray, CLAY, medium plasticity, medium stiffness, saturated. *(continued)*	0.5	
			DP	100				0.5	
17.5	412.5							0.4	
								0.2	
20.0	410.0							0.2	
			DP	100				0.6	
								0.3	
22.5	407.5					22.3			
					SP		Black To Gray, FINE SAND, with silt, well sorted, dense, saturated.	0.5	
						24.0		0.1	

Bottom of Boring @ 24.00 ft

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JS-B-010

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR:	Not Applicable	**DRILLING METHOD:**	Hand Auger/ Direct Push
DATE APS COMPLETED:	Not Applicable	**TOTAL DEPTH:**	24 feet bgs
B/MW CONTRACTOR:	Parratt Wolff, Inc.	**DIAMETER:**	1.25 inches
DATE B COMPLETED:	11/28/2016	**LOGGED BY:**	R. Holt
DATE MW COMPLETED:	Not Applicable	**CHECKED BY:**	H. Usle
GROUND ELEVATION:	431.50 feet amsl	**TOC ELEVATION:**	Not Applicable
NOTES:			

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Concrete
USCS Poorly-graded Sand
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0–0.3			HA	100			CONCRETE.		
0.3–1.0					SP		Dark Brown, FINE TO COARSE SAND, some subangular gravel, dry.	0.3	
1.0–5.0	430.0, 427.5				SP		Dark Brown, FINE TO COARSE SAND, trace subangular gravel, trace cobbles at 3.5 feet bgs, dry.	0.1, 0.2, 0.1, 0.1	
5.0–9.5	425.0, 422.5		DP	17	SP		Brown, FINE TO COARSE SAND, and gravel, moist to wet.		
9.5–15.0	420.0, 417.5		DP, DP	88, 100	CL		Gray, CLAY, plastic, medium stiff, wet.	0.0, 0.5, 0.0, 0.0, 0.0	

Depth scale: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0

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JS-B-010

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0					CL		Gray, CLAY, plastic, medium stiff, wet. *(continued)*	0.0	
							16.0		
	415.0							0.0	
17.5								0.0	
			DP	100				0.0	
	412.5							0.0	
20.0					CL		Gray, CLAY, soft, saturated.	0.0	
	410.0							0.0	
22.5			DP	100				0.0	
	407.5						24.0	0.0	
							Bottom of Boring @ 24.00 ft		

ERM
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JS-B-011

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 11/28/2016
DATE MW COMPLETED: Not Applicable
GROUND ELEVATION: 431.40 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 24 feet bgs
DIAMETER: 1.25 inches
LOGGED BY: R. Holt
CHECKED BY: H. Usle
TOC ELEVATION: Not Applicable

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Sand
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0								0.1	
								0.1	
	430.0		HA	100	SP		Dark Brown To Black, FINE TO COARSE SAND, and subangular gravel, dry.	0.3	
2.5							3.0	0.3	
								0.3	
	427.5				SP		Dark Brown To Black, FINE TO COARSE SAND, trace to some gravel, some orange fine- to coarse-grained sand at 3.5 feet bgs, dry to moist.	0.5	
5.0							5.0	0.0	
			DP	50	SP		Dark Brown To Gray, FINE TO COARSE SAND, with gravel, moist. 6.0	0.0	
	425.0							0.0	
7.5					SP		Brown, FINE TO COARSE SAND, and gravel, brick at 6.25 feet bgs, wet at 7.5 feet bgs, moist to wet.	0.0	
	422.5						9.0	0.0	
10.0			DP	75	CL		Brown, CLAY, plastic, wet. 10.0	0.0	
								0.0	
	420.0							0.0	
12.5					CL		Gray, CLAY, plastic, wet.	0.0	
	417.5		DP	100				0.0	
15.0								0.0	

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Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0									
								0.0	
	415.0							0.0	
17.5								0.0	
			DP	100				0.0	
	412.5								
					CL		Gray, CLAY, plastic, wet. *(continued)*	0.0	
20.0									
								0.0	
	410.0							0.0	
			DP	100					
22.5								0.0	
								0.0	
	407.5						24.0		
							Bottom of Boring @ 24.00 ft		

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JS-B-012

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 11/30/2016 2:30:00 PM
DATE MW COMPLETED: Not Applicable
GROUND ELEVATION: 430.00 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 24 feet bgs
DIAMETER: 1.25 inches
LOGGED BY: R. Holt
CHECKED BY: H. Usle
TOC ELEVATION: Not Applicable

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Poorly-graded Gravel
USCS Poorly-graded Gravelly Sand
USCS Low Plasticity Clay
USCS Low Plasticity Silty Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
0.0	430.0								
0.0–0.5			HA	100	GP		0.5 Brown To Light Gray, FINE TO COARSE GRAVEL, grass.	0.0	
0.5–5.0			HA	100	SP		5.0 Dark Brown To Black, FINE TO COARSE SAND, and subangular gravel, brick fragments, dry.	0.0, 0.0, 0.0, 0.0, 0.0	
5.0–8.0			DP	17	SP		8.0 Dark Brown To Black, FINE TO COARSE SAND, and subangular gravel, glass fragments, dry.	0.2, 0.2, 0.2	
8.0–9.0			DP	75	SP		9.0 Brown, FINE TO COARSE SAND, and subangular gravel, loose to medium dense, wet.	0.3	
9.0–15.0			DP (75), DP (100)	75, 100	CL		Gray, CLAY, mottling present from 9 to 10 feet bgs, medium plasticity, medium stiffness, saturated.	0.9, 0.2, 0.8, 0.7, 0.9, 0.3	

Depth/elevation scale: 0.0 / 430.0; 2.5 / 427.5; 5.0 / 425.0; 7.5 / 422.5; 10.0 / 420.0; 12.5 / 417.5; 15.0 / 415.0

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Telephone: (315) 445-2554

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	415.0								
					CL		Gray, CLAY, mottling present from 9 to 10 feet bgs, medium plasticity, medium stiffness, saturated. *(continued)*	0.6	
			DP	100				0.4	
17.5	412.5							0.3	
								0.5	
20.0	410.0							0.4	
			DP	100				0.2	
								0.2	
22.5	407.5					23.0		0.3	
					CL-ML	24.0	Gray, CLAY, with silt, medium plasticity, medium stiffness, saturated.	0.3	

Bottom of Boring @ 24.00 ft

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OS-APS/B/MW-024A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 9/28/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 9/30/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 435.10 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 43.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: J. Reynolds/ H. Usle
CHECKED BY: J. Fox
TOC ELEVATION: 434.65 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
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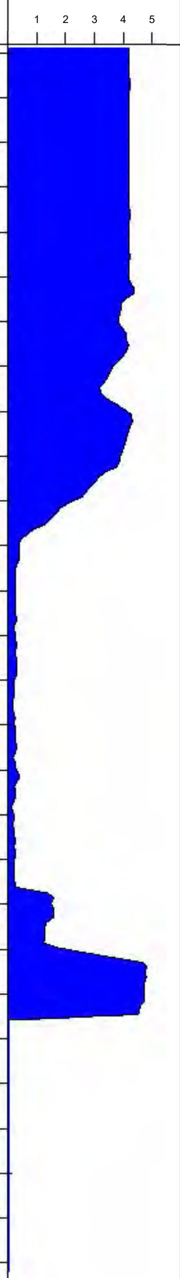
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Low Plasticity Silty Clay
USCS Poorly-graded Sand
USCS Low Plasticity Clay
USCS Poorly-graded Sand with Silt
USCS Silty Sand

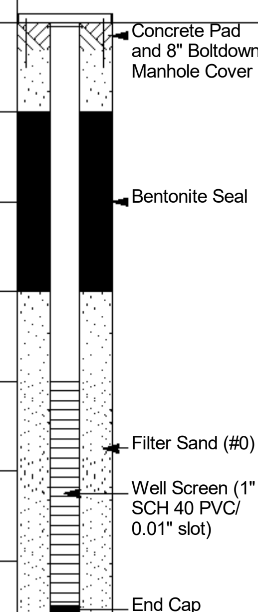
DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–2.0	435.0	HA	100	SP-SM	Brown, SANDY SILT, with subangular fine to coarse gravel, roots, semi firm, dry to moist.	0.0, 0.0
2.0–3.0	432.5	HA	100	CL-ML	Reddish Brown, CLAYEY SILT, some subangular fine to coarse gravel, fine-grained sand, semi firm, dry to moist.	0.0
3.0–4.0		HA	100	CL-ML	Brown, SILTY CLAY, trace to some fine to medium sand and gravel, subangular, semi firm, moist.	0.0
4.0–6.0	430.0	DP	50	SP	Light To Dark Brown, FINE TO COARSE SAND, some clay and gravel, subangular, concrete fragments, brick near 6 feet bgs, dark-brown "fuzzy like" layer, white flecks, medium dense, moist to wet.	0.0, 0.0
6.0–8.0	427.5	DP	50	CL-ML	Gray Brown, SILTY CLAY, stiff, moist to wet.	0.0, 0.0
8.0–11.3	425.0	DP	88	CL	Light brown, CLAY, some silt, soft to medium stiff, wet to saturated.	0.0, 0.0, 0.0, 0.0
11.3–15.0	422.5	DP	100	CL	Gray Brown, CLAY, some silt, soft, saturated.	0.0, 0.0, 0.0, 0.0

Depth markers: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0

WATERLOO APS (Ik)



WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-024A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	420.0							0.0	
								0.0	
17.5	417.5		DP	100				0.0	
								0.0	
								0.0	
20.0	415.0							0.0	
			DP	100				0.0	
22.5	412.5							0.0	
					CL		Gray Brown, CLAY, some silt, soft, saturated. *(continued)*	0.0	
								0.0	
25.0	410.0		DP	100				0.0	
								0.0	
27.5	407.5							0.0	
								0.0	
								0.0	
30.0	405.0		DP	100				0.0	
								0.0	

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OS-APS/B/MW-024A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5	402.5		DP	100	CL	36.0	Gray Brown, CLAY, some silt, soft, saturated. *(continued)*	0.0	
								0.0	
								0.0	
35.0	400.0							0.0	
			DP	75	SP-SM	38.5	Dark Gray, VERY FINE SILTY SAND, trace clay, saturated.	0.0	
37.5	397.5							0.0	
								0.0	
					SM	40.0	Dark Gray, FINE TO MEDIUM SAND, with silt, loose, saturated.	0.0	
40.0	395.0		DP	29	SP-SM	43.5	Dark Gray, SILTY SAND, with clay, contains nodules, some gravels, "till-like", very dense, saturated.	0.0	
								0.0	
42.5	392.5							0.0	
								0.0	

Bottom of APS Boring @ 43.40 ft

Bottom of Boring @ 43.50 ft

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Telephone: (315) 445-2554

OS-APS/B/MW-024B

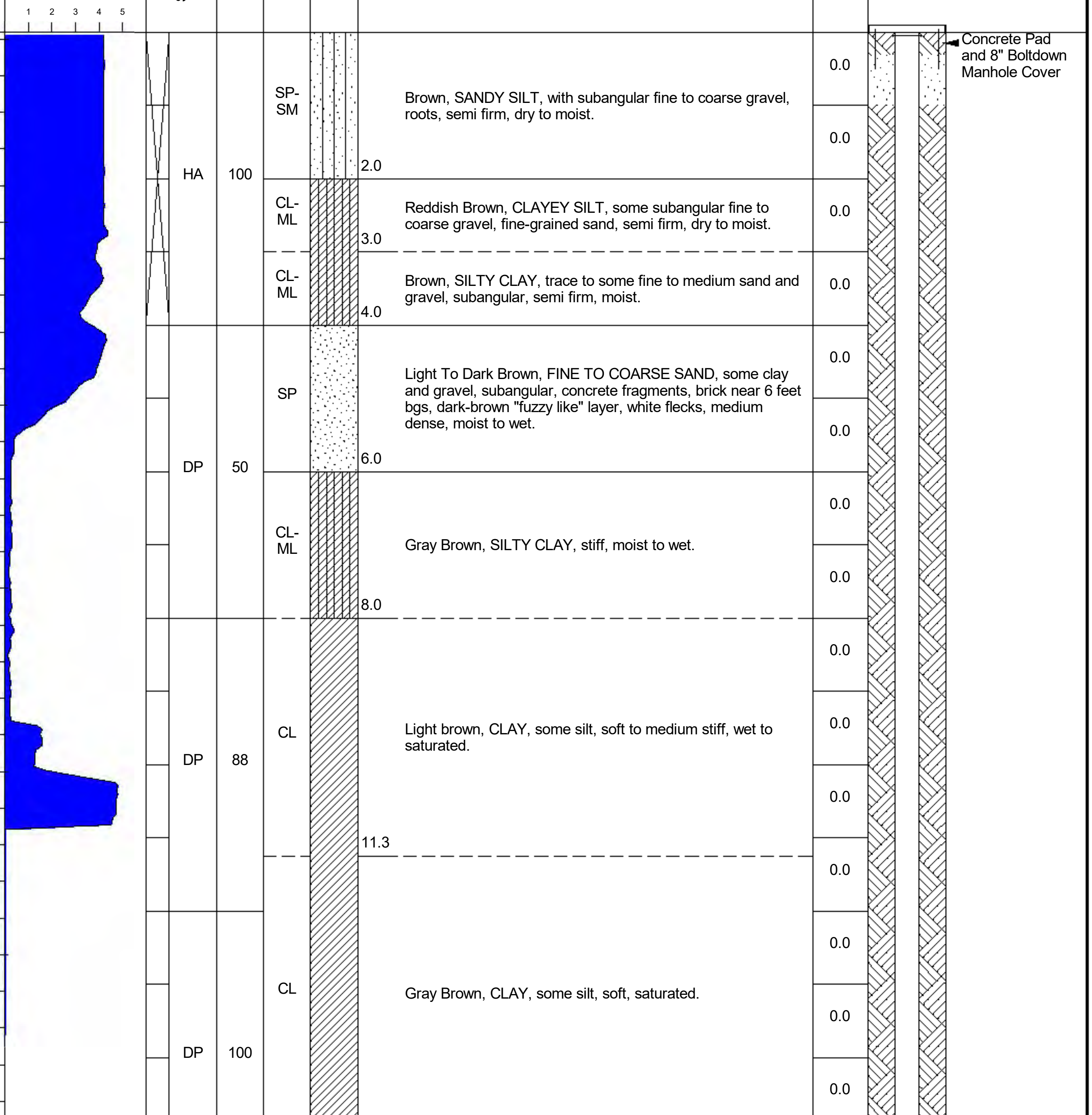
Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 9/28/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 9/30/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 435.10 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 43.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: J. Reynolds/ H. Usle
CHECKED BY: J. Fox
TOC ELEVATION: 434.70 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Low Plasticity Silty Clay
USCS Poorly-graded Sand
USCS Low Plasticity Clay
USCS Poorly-graded Sand with Silt
USCS Silty Sand



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0	435.0	HA	100	SP-SM	Brown, SANDY SILT, with subangular fine to coarse gravel, roots, semi firm, dry to moist. (to 2.0)	0.0, 0.0
2.5	432.5			CL-ML	Reddish Brown, CLAYEY SILT, some subangular fine to coarse gravel, fine-grained sand, semi firm, dry to moist. (to 3.0)	0.0
				CL-ML	Brown, SILTY CLAY, trace to some fine to medium sand and gravel, subangular, semi firm, moist. (to 4.0)	0.0
5.0	430.0	DP	50	SP	Light To Dark Brown, FINE TO COARSE SAND, some clay and gravel, subangular, concrete fragments, brick near 6 feet bgs, dark-brown "fuzzy like" layer, white flecks, medium dense, moist to wet. (to 6.0)	0.0, 0.0
7.5	427.5			CL-ML	Gray Brown, SILTY CLAY, stiff, moist to wet. (to 8.0)	0.0, 0.0
10.0	425.0	DP	88	CL	Light brown, CLAY, some silt, soft to medium stiff, wet to saturated. (to 11.3)	0.0, 0.0, 0.0
12.5	422.5	DP	100	CL	Gray Brown, CLAY, some silt, soft, saturated.	0.0, 0.0, 0.0, 0.0
15.0						

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Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter
Project Number: 0378075
Project Name: Hoosick
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	420.0							0.0	
								0.0	Bentonite Grout Seal
17.5	417.5							0.0	
			DP	100				0.0	
								0.0	
20.0	415.0							0.0	
								0.0	
			DP	100				0.0	
22.5	412.5							0.0	
					CL		Gray Brown, CLAY, some silt, soft, saturated. *(continued)*	0.0	
								0.0	
25.0	410.0							0.0	
			DP	100				0.0	
27.5	407.5							0.0	
								0.0	
								0.0	
30.0	405.0		DP	100				0.0	
								0.0	

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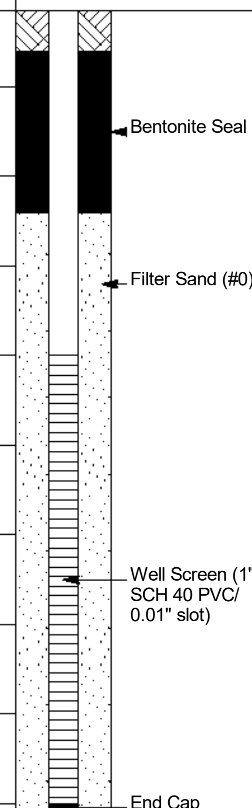
OS-APS/B/MW-024B

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5	402.5		DP	100	CL	36.0	Gray Brown, CLAY, some silt, soft, saturated. *(continued)*	0.0 0.0 0.0 0.0	
35.0	400.0								
37.5	397.5		DP	75	SP-SM	38.5	Dark Gray, VERY FINE SILTY SAND, trace clay, saturated.	0.0 0.0 0.0	
					SM	40.0	Dark Gray, FINE TO MEDIUM SAND, with silt, loose, saturated.	0.0 0.0	
40.0	395.0		DP	29	SP-SM	43.5	Dark Gray, SILTY SAND, with clay, contains nodules, some gravels, "till-like", very dense, saturated.	0.0 0.0 0.0 0.0	
42.5	392.5								



Bottom of APS Boring @ 43.40 ft

Bottom of Boring @ 43.50 ft

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Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-025A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/4/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/11/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 428.10 feet amsl
NOTES:

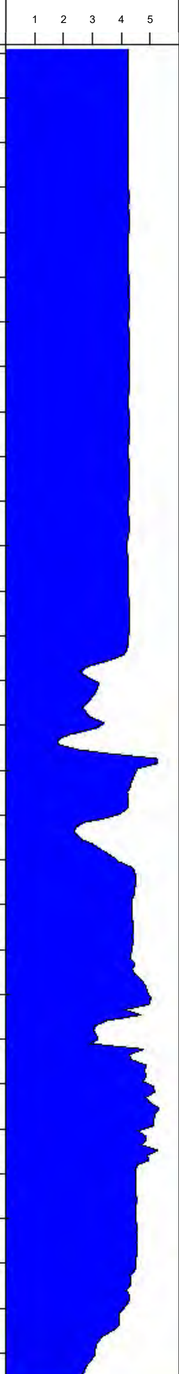
DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 26.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.70 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Gravel
USCS Poorly-graded Sand
USCS Low Plasticity Silty Clay
USCS Low Plasticity Sandy Clay

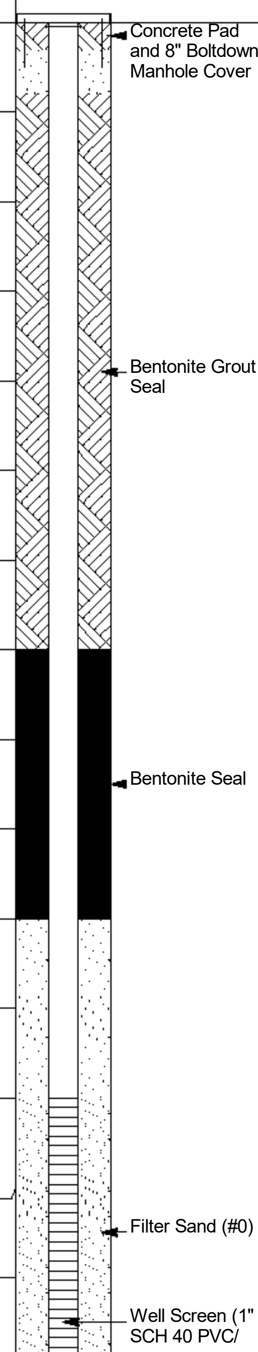
DEPTH (ft): 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0
ELEVATION (feet amsl): 427.5, 425.0, 422.5, 420.0, 417.5, 415.0

WATERLOO APS (Ik)



SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG (bottom depth)	MATERIAL DESCRIPTION	PID (ppm)
HA	100	ML	1.0	Dark Brown, SANDY SILT, some subrounded fine to coarse gravel, brick and roots, loose, dry to moist.	0.0
		SP	4.0	Dark Brown, FINE TO COARSE GRAVELLY SAND, subrounded, loose, moist.	0.0 / 0.0 / 0.0
DP	50	GP	5.0	Tan To Brown, COARSE SAND, and subangular fine to medium gravel, coarse lithic clasts, firm, moist.	0.0
		SP	6.0	Brown, COARSE TO MEDIUM SAND, angular lithic sand, firm, moist.	0.0
		SP	7.2	Brown, COARSE TO MEDIUM SAND, and subangular fine gravel, fine gravel clasts, firm, moist.	0.0
		CL-ML	8.0	Brown To Tan, CLAY AND SILT, and medium sand, oxide stringers, low plasticity, wet.	0.0
DP	46	CL-ML	8.8	Brown To Tan, SILT AND CLAY, and subrounded fine sand and gravel, oxide stringers, firm, low plasticity, moist.	0.6
		CL	10.0	Brown, CLAY, with fine sand and silt, firm, low plasticity, wet.	0.7
		CL-ML	11.0	Gray Brown, SILT AND CLAY, with rounded fine sand and gravel, firm, wet.	0.7
		CL	12.0	Brown Orange, CLAY, with sand and gravel, firm, low plasticity, moist, mottling.	0.7
DP	30	CL-ML	13.1	Gray, SILTY CLAY, with rounded medium sand and fine gravel, oxide stringers, interbedded, low plasticity, wet, orange-gray mottling.	0.6
		SP	14.2	Brown, FINE TO MEDIUM GRAVEL, with angular sand, friable, oxide stringers, firm, moist.	0.7
		SP		Brown, FINE TO MEDIUM SAND AND GRAVEL, and silt, oxidized brown matrix, friable, quartz fragments, firm, moist.	0.6

WELL DIAGRAM



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OS-APS/B/MW-025A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Depth	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	412.5			SP	15.8	Brown, FINE TO MEDIUM SAND AND GRAVEL, and silt, oxidized brown matrix, friable, quartz fragments, firm, moist. *(continued)*	0.2	0.01" slot)
				CL	16.0	Gray, SANDY CLAY, wet.		
		DP	25	CL	16.8	Brownish Gray, FINE SAND, with clay, low plasticity, wet.	0.7	
				SP	17.0	Brownish Gray, FINE TO MEDIUM SAND, loose, saturated.		End Cap
17.5	410.0			SP-SM	18.5	Brownish Gray, FINE SAND, some silt, friable texture, loose, saturated.	0.4 0.7	
				SP	20.0	Brown To Dark Gray, FINE SAND, with rounded gravel, loose, saturated.	0.4	
20.0	407.5	DP	48	GP-GM	20.8	Brownish Gray, MEDIUM TO COARSE GRAVEL, with sand and silt, subrounded, oxidized surfaces, loose, saturated.	0.5	
				GP-GM	22.0	Brownish Gray, FINE TO MEDIUM GRAVEL, with sand and silt, subrounded, loose, saturated.	0.6	
22.5	405.0			GP	23.7	Brownish Gray, FINE GRAVEL, with fine to medium sand, subrounded, loose, saturated.	0.6 0.5	
				CL	24.2	Gray, CLAY, with medium sand, fine gravel, subrounded, firm, saturated.		
25.0	402.5	DP	58		26.0	Dark Gray, SHALE/ PHYLLITE, firm, saturated.	0.6	
						Samples for description not available below drilling refusal depth.		

WATERLOO APS (Ik): 1 2 3 4 5

Bottom of APS Boring @ 26.50 ft

Bottom of Boring @ 26.00 ft

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Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-025B

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/4/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/11/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 428.10 feet amsl
NOTES:

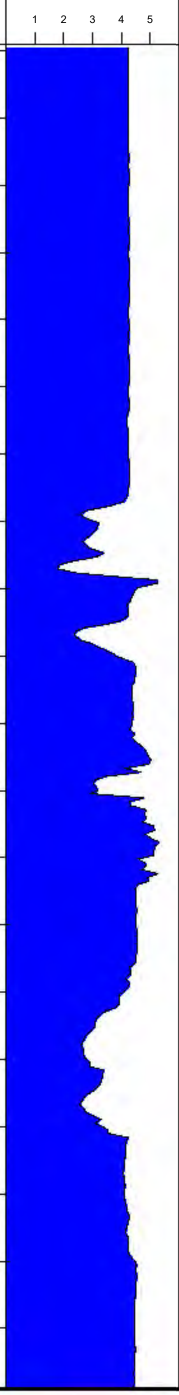
DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 26.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.80 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Gravel
USCS Poorly-graded Sand
USCS Low Plasticity Silty Clay
USCS Low Plasticity Sandy Clay

DEPTH (ft): 0, 5, 10, 15, 20
ELEVATION (feet amsl): 425, 420, 415, 410

WATERLOO APS (Ik)

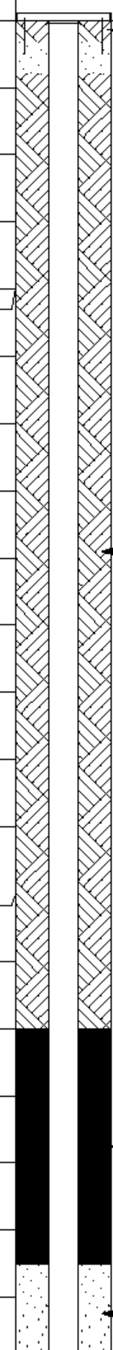


SAMPLE TYPE	Interval (ft)	RECOVERY %
HA	0–4	100
DP	4–8	50
DP	8–12	46
DP	12–16	30
DP	16–20	25

Bottom depth (ft)	U.S.C.S.	MATERIAL DESCRIPTION
1.0	ML	Dark Brown, SANDY SILT, some subrounded fine to coarse gravel, brick and roots, loose, dry to moist.
4.0	SP	Dark Brown, FINE TO COARSE GRAVELLY SAND, subrounded, loose, moist.
5.0	GP	Tan To Brown, COARSE SAND, and subangular fine to medium gravel, coarse lithic clasts, firm, moist.
6.0	SP	Brown, COARSE TO MEDIUM SAND, angular lithic sand, firm, moist.
7.2	SP	Brown, COARSE TO MEDIUM SAND, and subangular fine gravel, fine gravel clasts, firm, moist.
8.0	CL-ML	Brown To Tan, CLAY AND SILT, and medium sand, oxide stringers, low plasticity, wet.
8.8	CL-ML	Brown To Tan, SILT AND CLAY, and subrounded fine sand and gravel, oxide stringers, firm, low plasticity, moist.
10.0	CL	Brown, CLAY, with fine sand and silt, firm, low plasticity, wet.
11.0	CL-ML	Gray Brown, SILT AND CLAY, with rounded fine sand and gravel, firm, wet.
12.0	CL	Brown Orange, CLAY, with sand and gravel, firm, low plasticity, moist, mottling.
13.1	CL-ML	Gray, SILTY CLAY, with rounded medium sand and fine gravel, oxide stringers, interbedded, low plasticity, wet, orange-gray mottling.
14.2	SP	Brown, FINE TO MEDIUM GRAVEL, with angular sand, friable, oxide stringers, firm, moist.
15.8	SP	Brown, FINE TO MEDIUM SAND AND GRAVEL, and silt, oxidized brown matrix, friable, quartz fragments, firm, moist.
16.0	CL	Gray, SANDY CLAY, wet.
16.8	CL	Brownish Gray, FINE SAND, with clay, low plasticity, wet.
17.0	SP	Brownish Gray, FINE TO MEDIUM SAND, loose, saturated.
18.5	SP-SM	Brownish Gray, FINE SAND, some silt, friable texture, loose, saturated.
20.0	SP	Brown To Dark Gray, FINE SAND, with rounded gravel, loose, saturated.

Depth interval (ft)	PID (ppm)
0–1	0.0
1–2	0.0
2–3	0.0
4	0.0
4–5	0.0
5–6	0.0
6–7	0.0
7–8	0.0
8–9	0.6
9–10	0.7
10–11	0.7
11–12	0.7
12–13	0.6
13–14	0.7
14–15	0.6
15–16	0.2
16–17	0.7
17–18	0.4
18–19	0.7
19–20	0.4

WELL DIAGRAM



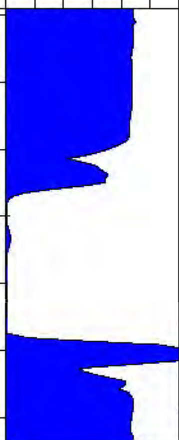
ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

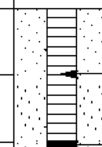
OS-APS/B/MW-025B

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
20		1 2 3 4 5							
			DP	48	GP-GM	20.8	Brownish Gray, MEDIUM TO COARSE GRAVEL, with sand and silt, subrounded, oxidized surfaces, loose, saturated.	0.5	Well Screen (1" SCH 40 PVC/ 0.01" slot)
					GP-GM	22.0	Brownish Gray, FINE TO MEDIUM GRAVEL, with sand and silt, subrounded, loose, saturated.	0.6	End Cap
	405				GP	23.7	Brownish Gray, FINE GRAVEL, with fine to medium sand, subrounded, loose, saturated.	0.6 0.5	
					CL	24.2	Gray, CLAY, with medium sand, fine gravel, subrounded, firm, saturated.		
25			DP	58		26.0	Dark Gray, SHALE/ PHYLLITE, firm, saturated.	0.6	
							Samples for description not available below drilling refusal depth.		





Bottom of APS Boring @ 26.50 ft

Bottom of Boring @ 26.00 ft

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Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-025C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/4/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/11/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 428.00 feet amsl
NOTES:

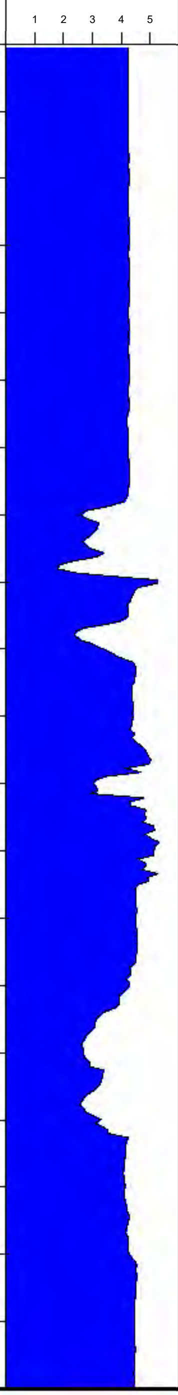
DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 26.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.70 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

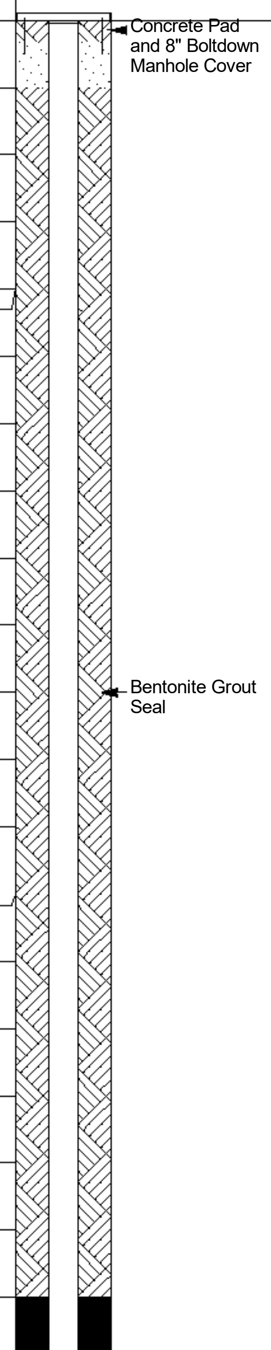
GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Gravel
USCS Poorly-graded Sand
USCS Low Plasticity Silty Clay
USCS Low Plasticity Sandy Clay

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0–1.0		HA	100	ML	Dark Brown, SANDY SILT, some subrounded fine to coarse gravel, brick and roots, loose, dry to moist.	0.0
1.0–4.0	425	HA	100	SP	Dark Brown, FINE TO COARSE GRAVELLY SAND, subrounded, loose, moist.	0.0, 0.0
4.0–5.0		DP	50	GP	Tan To Brown, COARSE SAND, and subangular fine to medium gravel, coarse lithic clasts, firm, moist.	0.0, 0.0
5.0–6.0		DP	50	SP	Brown, COARSE TO MEDIUM SAND, angular lithic sand, firm, moist.	0.0
6.0–7.2		DP	50	SP	Brown, COARSE TO MEDIUM SAND, and subangular fine gravel, fine gravel clasts, firm, moist.	0.0
7.2–8.0	420	DP	50	CL-ML	Brown To Tan, CLAY AND SILT, and medium sand, oxide stringers, low plasticity, wet.	0.0
8.0–8.8		DP	46	CL-ML	Brown To Tan, SILT AND CLAY, and subrounded fine sand and gravel, oxide stringers, firm, low plasticity, moist.	0.6
8.8–10.0		DP	46	CL	Brown, CLAY, with fine sand and silt, firm, low plasticity, wet.	0.7
10.0–11.0		DP	46	CL-ML	Gray Brown, SILT AND CLAY, with rounded fine sand and gravel, firm, wet.	0.7
11.0–12.0		DP	46	CL	Brown Orange, CLAY, with sand and gravel, firm, low plasticity, moist, mottling.	0.7
12.0–13.1	415	DP	30	CL-ML	Gray, SILTY CLAY, with rounded medium sand and fine gravel, oxide stringers, interbedded, low plasticity, wet, orange-gray mottling.	0.6
13.1–14.2		DP	30	SP	Brown, FINE TO MEDIUM GRAVEL, with angular sand, friable, oxide stringers, firm, moist.	0.7
14.2–15.8		DP	30	SP	Brown, FINE TO MEDIUM SAND AND GRAVEL, and silt, oxidized brown matrix, friable, quartz fragments, firm, moist.	0.6, 0.2
15.8–16.0		DP	30	CL	Gray, SANDY CLAY, wet.	
16.0–16.8		DP	25	CL	Brownish Gray, FINE SAND, with clay, low plasticity, wet.	0.7
16.8–17.0		DP	25	SP	Brownish Gray, FINE TO MEDIUM SAND, loose, saturated.	
17.0–18.5	410	DP	25	SP-SM	Brownish Gray, FINE SAND, some silt, friable texture, loose, saturated.	0.4
18.5–20.0		DP	25	SP	Brown To Dark Gray, FINE SAND, with rounded gravel, loose, saturated.	0.7, 0.4

WATERLOO APS (Ik)



WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-025C

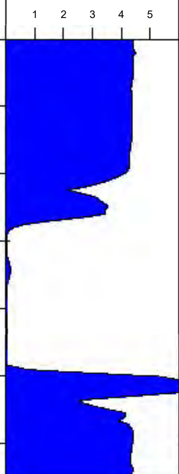
Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

WATERLOO APS (Ik)

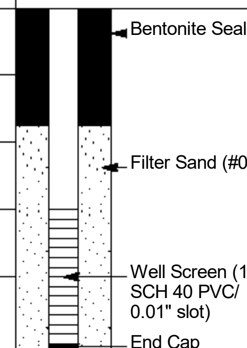


DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG (depth)	MATERIAL DESCRIPTION	PID (ppm)
20		DP	48	GP-GM	20.8	Brownish Gray, MEDIUM TO COARSE GRAVEL, with sand and silt, subrounded, oxidized surfaces, loose, saturated.	0.5
				GP-GM	22.0	Brownish Gray, FINE TO MEDIUM GRAVEL, with sand and silt, subrounded, loose, saturated.	0.6
	405			GP	23.7	Brownish Gray, FINE GRAVEL, with fine to medium sand, subrounded, loose, saturated.	0.6 0.5
				CL	24.2	Gray, CLAY, with medium sand, fine gravel, subrounded, firm, saturated.	
25		DP	58		26.0	Dark Gray, SHALE/ PHYLLITE, firm, saturated.	0.6
						Samples for description not available below drilling refusal depth.	

Bottom of APS Boring @ 26.50 ft

Bottom of Boring @ 26.00 ft

WELL DIAGRAM



ERM
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Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-026A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

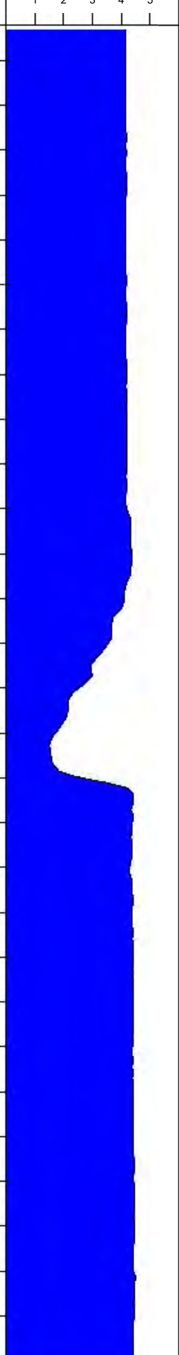
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/5/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/12/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 427.90 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 76 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.50 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

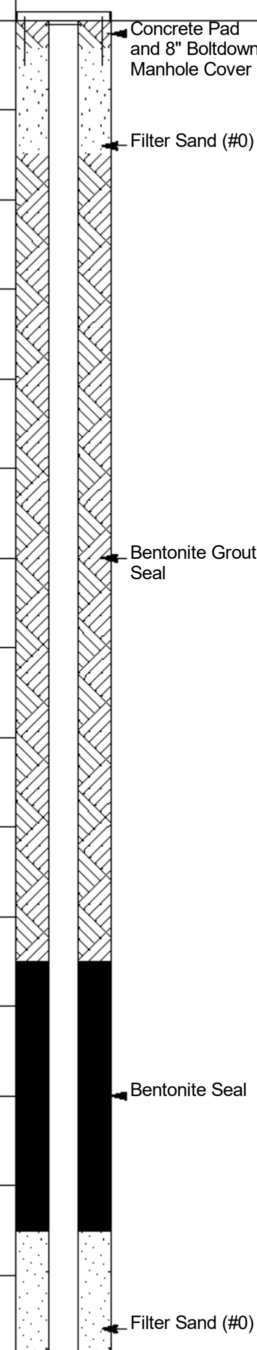
GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Silty Sand
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Sand with Silt
USCS Poorly-graded Sand
USCS Poorly-graded Gravel

WATERLOO APS (Ik) 1 2 3 4 5



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–1.0	427.5	HA	100	ML	Dark Red Brown, SANDY SILT, some subangular fine to medium gravel, loose, dry to moist.	0.0
1.0–2.0				SM	Dark Brown, SILTY SAND, with subrounded fine to coarse gravel, loose, moist.	0.0
2.0–4.0	425.0			SM	Medium Brown, SAND AND SILT, with rounded fine gravel, oxidized, loose, moist.	0.0, 0.0
4.0–6.7	422.5	DP	96	SP	Orange Brown, MEDIUM SAND, and subrounded fine to coarse gravel, lithic sand, friable, orange-brown oxidation, loose, moist.	1.0, 1.4, 2.2
6.7–8.0	420.0			SP-SM	Brown, MEDIUM SAND, little silt, increasing clay with depth, low plasticity, moist.	1.5
8.0–8.7		DP	75	SP	Brown, MEDIUM SAND AND GRAVEL, and subangular silt, friable, moist.	1.4
8.7–9.8				SP-SM	Brown, SILT, and very fine sand, firm, low plasticity, saturated, brown-black mottling.	1.5
9.8–12.0	417.5			SP	Light Gray To Brown, MEDIUM TO COARSE SAND, with subangular gravel, friable, lithic sand, arenite with thin matrix zones, dry.	2.0, 1.2
12.0–15.0	415.0	DP	50	SP	Brown to gray, MEDIUM TO COARSE SAND, and subangular and subrounded medium gravel, lithic sand, minor silt, brown oxides, friable, abundant quartz clasts from 15 to 16 feet bgs, moist to wet.	1.1, 1.0, 1.3

WELL DIAGRAM



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OS-APS/B/MW-026A

Client: Arnold & Porter
Project Number: 0378075
Project Name: Hoosick
Project Location: Hoosick, New York

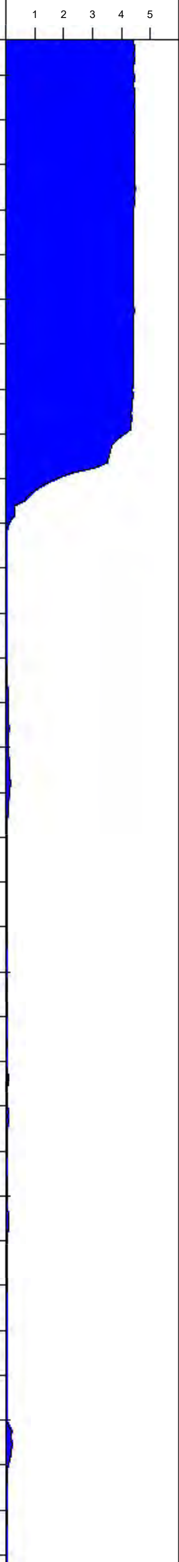
DEPTH (ft)	ELEVATION (feet amsl)	U.S.C.S.	MATERIAL DESCRIPTION
15.0 – 16.7	412.5	SP	Brown to gray, MEDIUM TO COARSE SAND, and subangular and subrounded medium gravel, lithic sand, minor silt, brown oxides, friable, abundant quartz clasts from 15 to 16 feet bgs, moist to wet. *(continued)*
16.7 – 17.2		SP	Brown to gray, COARSE SAND, and gravel, friable, minor silt and clay, wet.
17.2 – 20.3	410.0	GP	Brown To Dark Gray, COARSE GRAVEL, little sand, angular and subangular, mixed lithic clasts, friable, loose, saturated.
20.3 – 32.0	407.5	CL	Medium Gray, CLAY, and silt, minor fine-grained sand, stiff, low to high plasticity, saturated.

Depth scale: 15.0, 17.5, 20.0, 22.5, 25.0, 27.5, 30.0
Elevation scale: 412.5, 410.0, 407.5, 405.0, 402.5, 400.0, 397.5

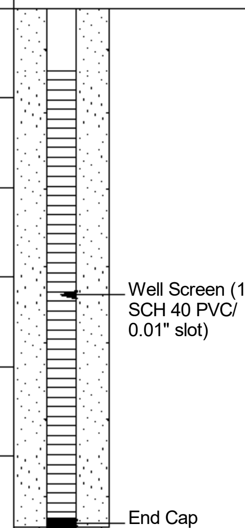
SAMPLE TYPE	RECOVERY %
DP	65
DP	100
DP	100
DP	94

PID (ppm)
1.0
0.5
0.9
1.0
0.9
1.1
0.9
1.2
0.9
1.3
1.0
0.4
0.2
0.6
0.3
0.8

WATERLOO APS (Ik)



WELL DIAGRAM



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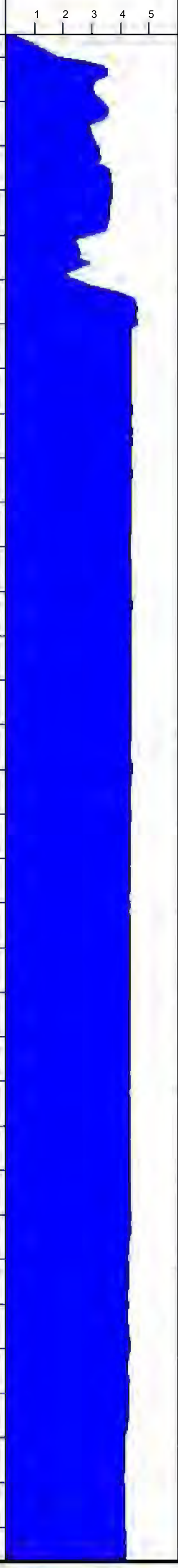
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5	395.0		DP	100	ML		Medium Gray, SILT, trace sand, soft, saturated.	0.1	
					ML	33.4	Medium Gray, SILT, trace sand, soft, saturated. *(continued)*	1.2	
35.0	392.5				SM	35.8	Medium Gray, VERY FINE SAND, and silt, minor clay, well sorted, firm, saturated.	0.9 0.9	
37.5 40.0 42.5	390.0 387.5 385.0		DP DP	13 50	SP	44.0	Light Gray, FINE TO MEDIUM GRAVEL, and medium to coarse sand, angular to subangular clasts, abundant quartz, weakly friable, loose, saturated.	1.2 1.3 2.1 1.9 1.5	
45.0	382.5		DP	58	SP	45.7	Light Gray, VERY COARSE SAND, subangular lithic, well sorted, saturated.	1.7 1.8	
47.5	380.0				SP	48.0	Gray, MEDIUM TO COARSE SAND, and subrounded gravel, lithic clasts, loose, saturated.	1.8 1.6	
					GW-GC		Gray, FINE TO MEDIUM GRAVEL, interbedded medium to coarse sand, angular, subangular and subrounded lithic clasts, shale/ phyllite fragments, coarsening upwards, loose, saturated.	1.0	

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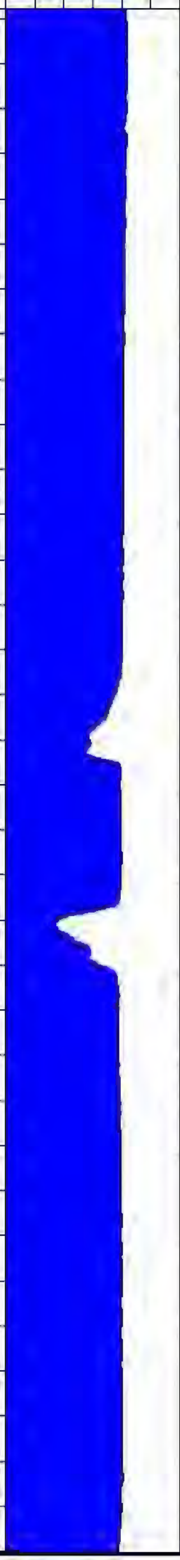
OS-APS/B/MW-026A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

WATERLOO APS (Ik) 1 2 3 4 5



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
50.0	377.5	DP	38	GW-GC	Gray, FINE TO MEDIUM GRAVEL, interbedded medium to coarse sand, angular, subangular and subrounded lithic clasts, shale/ phyllite fragments, coarsening upwards, loose, saturated. *(continued)*	1.4	
52.5	375.0	DP	46			0.9, 1.1, 1.4	
55.0	372.5				57.0	1.5, 0.5	
57.5	370.0	DP	94	SP	Medium Gray, FINE SAND AND GRAVEL, some silt, subangular gravel, increasing silt content with depth, dense, saturated. 59.2	1.8, 1.3	
60.0	367.5	DP	65	GP	Medium Gray, FINE TO MEDIUM GRAVEL, with coarse sand, subangular, friable, loose, saturated. 64.0	0.6, 2.2, 2.2	
62.5	365.0					2.5, 2.7	
			1000		64.2 Black PHYLLITE; Refusal.		
65.0	362.5				Samples for description not available below drilling refusal depth.		

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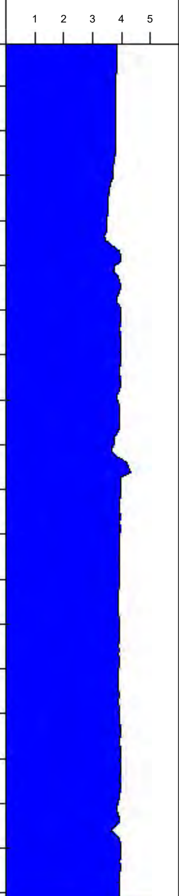
OS-APS/B/MW-026A

Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
67.5 70.0 72.5 75.0	360.0 357.5 355.0 352.5						Samples for description not available below drilling refusal depth. *(continued)*		
							Bottom of APS Boring @ 76.00 ft Bottom of Boring @ 64.00 ft		

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Telephone: (315) 445-2554

OS-APS/B/MW-026B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

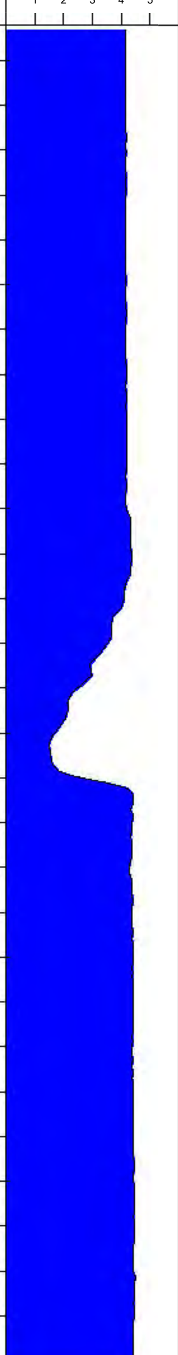
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/5/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/12/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 427.90 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 76 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.60 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Silty Sand
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Sand with Silt
USCS Poorly-graded Sand
USCS Poorly-graded Gravel

WATERLOO APS (Ik)



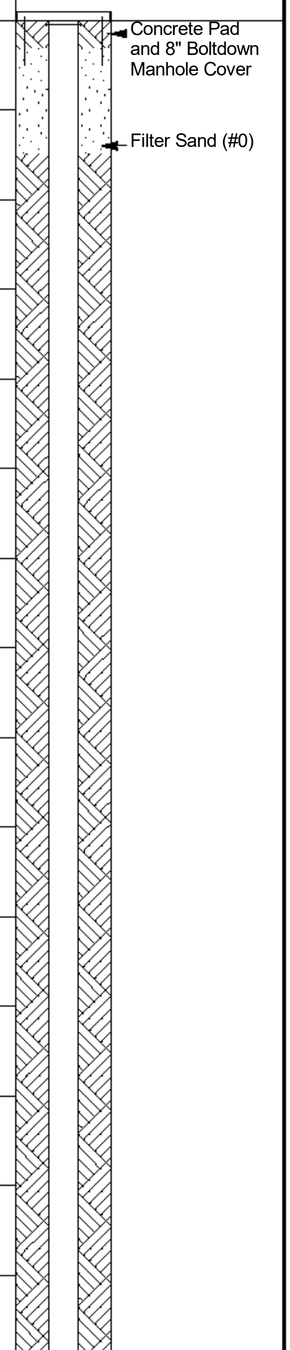
DEPTH (ft)	U.S.C.S.	MATERIAL DESCRIPTION
0.0–1.0	ML	Dark Red Brown, SANDY SILT, some subangular fine to medium gravel, loose, dry to moist.
1.0–2.0	SM	Dark Brown, SILTY SAND, with subrounded fine to coarse gravel, loose, moist.
2.0–4.0	SM	Medium Brown, SAND AND SILT, with rounded fine gravel, oxidized, loose, moist.
4.0–6.7	SP	Orange Brown, MEDIUM SAND, and subrounded fine to coarse gravel, lithic sand, friable, orange-brown oxidation, loose, moist.
6.7–8.0	SP-SM	Brown, MEDIUM SAND, little silt, increasing clay with depth, low plasticity, moist.
8.0–8.7	SP	Brown, MEDIUM SAND AND GRAVEL, and subangular silt, friable, moist.
8.7–9.8	SP-SM	Brown, SILT, and very fine sand, firm, low plasticity, saturated, brown-black mottling.
9.8–12.0	SP	Light Gray To Brown, MEDIUM TO COARSE SAND, with subangular gravel, friable, lithic sand, arenite with thin matrix zones, dry.
12.0–15.0	SP	Brown to gray, MEDIUM TO COARSE SAND, and subangular and subrounded medium gravel, lithic sand, minor silt, brown oxides, friable, abundant quartz clasts from 15 to 16 feet bgs, moist to wet.

Sample Interval (ft)	SAMPLE TYPE	RECOVERY %
0.0–4.0	HA	100
4.0–8.0	DP	96
8.0–12.0	DP	75
12.0–15.0	DP	50

Depth Interval (ft)	PID (ppm)
0–1	0.0
1–2	0.0
2–3	0.0
3–4	0.0
4–5	1.0
5–6	1.4
6–7	2.2
7–8	1.5
8–9	1.4
9–10	1.5
10–11	2.0
11–12	1.2
12–13	1.1
13–14	1.0
14–15	1.3

Depth (ft): 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0
Elevation (feet amsl): 427.5, 425.0, 422.5, 420.0, 417.5, 415.0

WELL DIAGRAM



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Telephone: (315) 445-2554

OS-APS/B/MW-026B

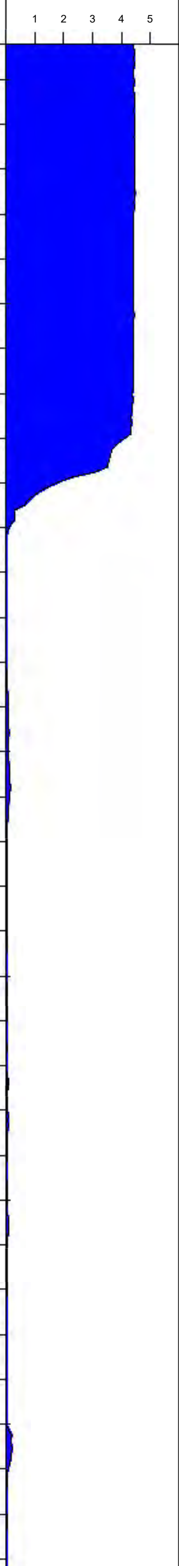
Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	412.5				SP		Brown to gray, MEDIUM TO COARSE SAND, and subangular and subrounded medium gravel, lithic sand, minor silt, brown oxides, friable, abundant quartz clasts from 15 to 16 feet bgs, moist to wet. *(continued)*		
						16.7		1.0	Bentonite Grout Seal
					SP	17.2	Brown to gray, COARSE SAND, and gravel, friable, minor silt and clay, wet.		
17.5	410.0		DP	65	GP		Brown To Dark Gray, COARSE GRAVEL, little sand, angular and subangular, mixed lithic clasts, friable, loose, saturated.	0.5	
								0.9	
								1.0	
20.0	407.5					20.3		0.9	
			DP	100				1.1	
22.5	405.0							0.9	
								1.2	
								0.9	
25.0	402.5							1.3	
			DP	100	CL		Medium Gray, CLAY, and silt, minor fine-grained sand, stiff, low to high plasticity, saturated.	1.0	
27.5	400.0							0.4	
								0.2	
								0.6	
30.0	397.5		DP	94				0.3	
						32.0		0.8	



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5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

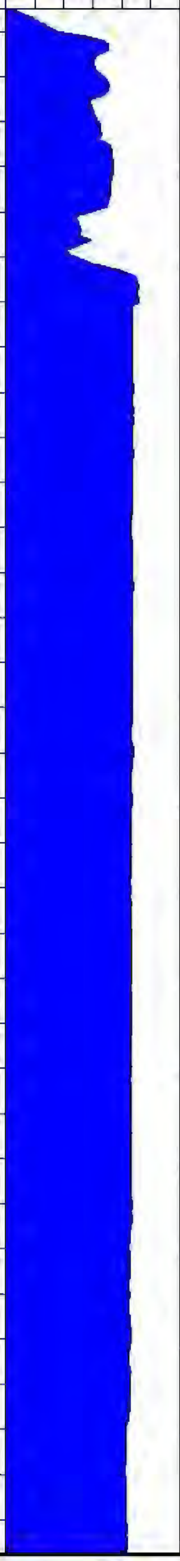
OS-APS/B/MW-026B

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)
32.5	395.0
35.0	392.5
37.5	390.0
40.0	387.5
42.5	385.0
45.0	382.5
47.5	380.0

WATERLOO APS (Ik)

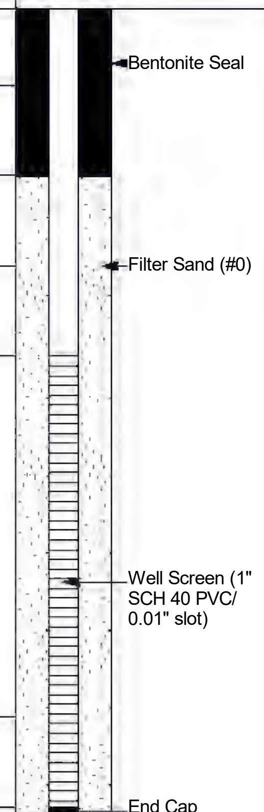


SAMPLE TYPE	RECOVERY %
DP	100
DP	13
DP	50
DP	58

U.S.C.S.	MATERIAL DESCRIPTION	Bottom depth (ft)
ML	Medium Gray, SILT, trace sand, soft, saturated.	
ML	Medium Gray, SILT, trace sand, soft, saturated. *(continued)*	33.4
SM	Medium Gray, VERY FINE SAND, and silt, minor clay, well sorted, firm, saturated.	35.8
SP	Light Gray, FINE TO MEDIUM GRAVEL, and medium to coarse sand, angular to subangular clasts, abundant quartz, weakly friable, loose, saturated.	44.0
SP	Light Gray, VERY COARSE SAND, subangular lithic, well sorted, saturated.	45.7
SP	Gray, MEDIUM TO COARSE SAND, and subrounded gravel, lithic clasts, loose, saturated.	48.0
GW-GC	Gray, FINE TO MEDIUM GRAVEL, interbedded medium to coarse sand, angular, subangular and subrounded lithic clasts, shale/ phyllite fragments, coarsening upwards, loose, saturated.	

PID (ppm): 0.1, 1.2, 0.9, 0.9, 1.2, 1.3, 2.1, 1.9, 1.5, 1.7, 1.8, 1.8, 1.6, 1.0

WELL DIAGRAM



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5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

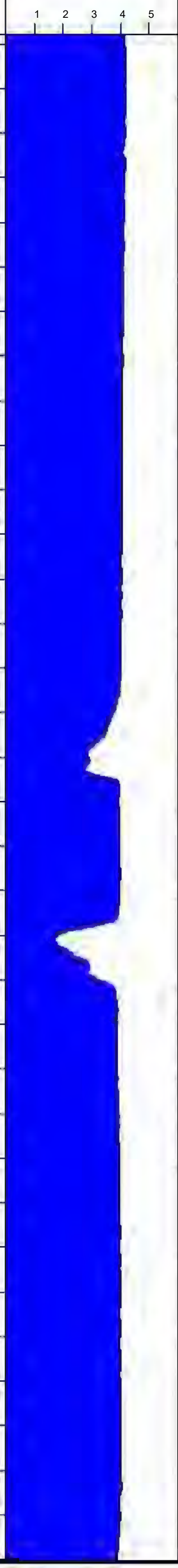
OS-APS/B/MW-026B

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)
50.0	377.5
52.5	375.0
55.0	372.5
57.5	370.0
60.0	367.5
62.5	365.0
65.0	362.5

WATERLOO APS (Ik)



SAMPLE TYPE	RECOVERY %
DP	38
DP	46
DP	94
DP	65
	1000

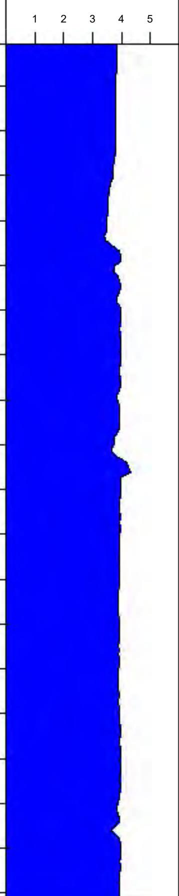
U.S.C.S.	GRAPHIC LOG (bottom depth)	MATERIAL DESCRIPTION
GW-GC	57.0	Gray, FINE TO MEDIUM GRAVEL, interbedded medium to coarse sand, angular, subangular and subrounded lithic clasts, shale/ phyllite fragments, coarsening upwards, loose, saturated. *(continued)*
SP	59.2	Medium Gray, FINE SAND AND GRAVEL, some silt, subangular gravel, increasing silt content with depth, dense, saturated.
GP	64.0	Medium Gray, FINE TO MEDIUM GRAVEL, with coarse sand, subangular, friable, loose, saturated.
	64.2	Black PHYLLITE; Refusal.
		Samples for description not available below drilling refusal depth.

PID (ppm): 1.4, 0.9, 1.1, 1.4, 1.5, 0.5, 1.8, 1.3, 0.6, 2.2, 2.2, 2.5, 2.7

WELL DIAGRAM

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
67.5 70.0 72.5 75.0	360.0 357.5 355.0 352.5						Samples for description not available below drilling refusal depth. *(continued)*		
							Bottom of APS Boring @ 76.00 ft Bottom of Boring @ 64.00 ft		

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-026C

Client: Arnold & Porter **Project Name:** Hoosick

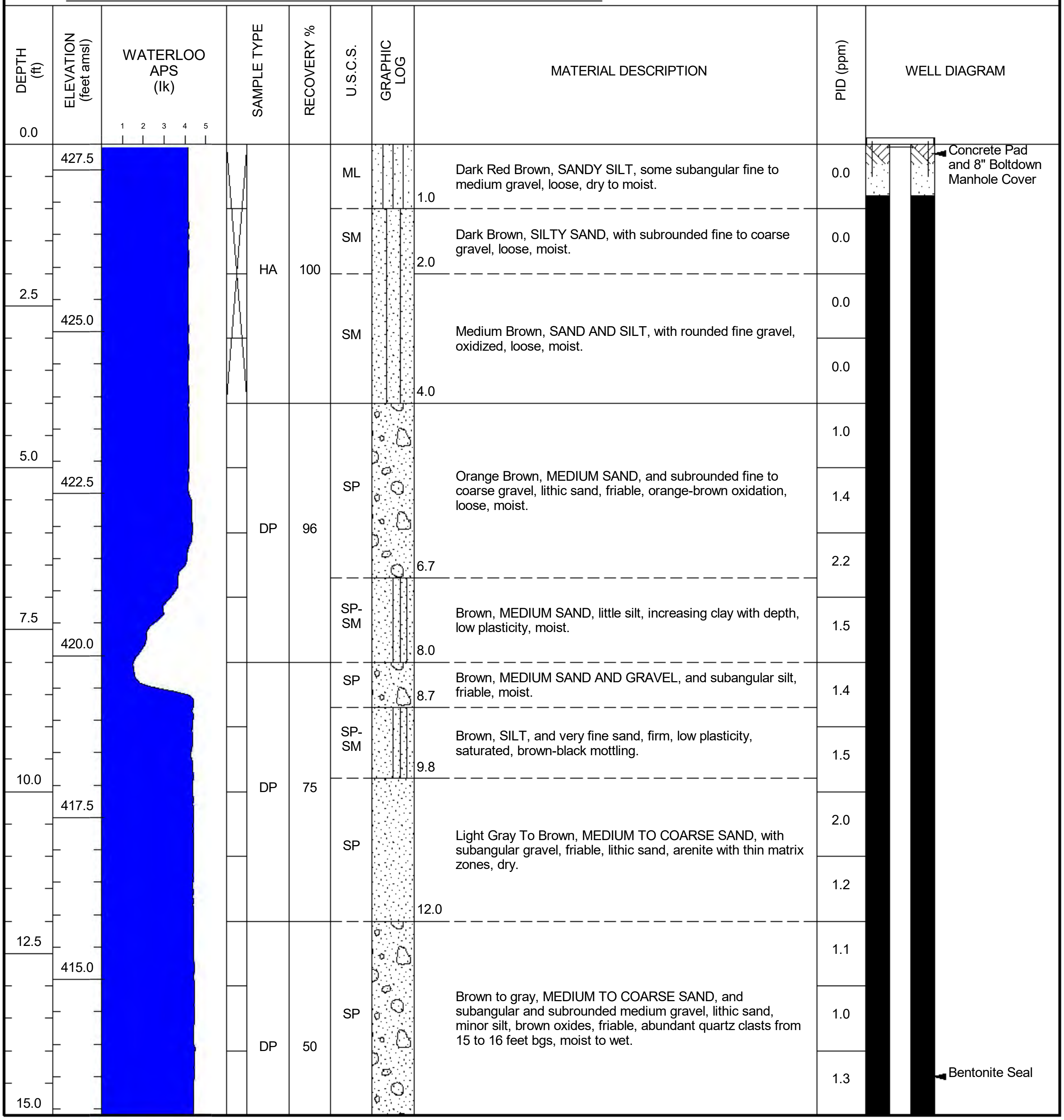
Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/5/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/12/2016
DATE MW COMPLETED: 11/1/2016
GROUND ELEVATION: 427.90 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 80 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 427.50 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
USCS Sandy Silt
USCS Silty Sand
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Sand with Silt
USCS Poorly-graded Sand
USCS Poorly-graded Gravel



Sample Type	Recovery %	U.S.C.S.	Depth (ft bgs)	Material Description	PID (ppm)
HA	100	ML	1.0	Dark Red Brown, SANDY SILT, some subangular fine to medium gravel, loose, dry to moist.	0.0
		SM	2.0	Dark Brown, SILTY SAND, with subrounded fine to coarse gravel, loose, moist.	0.0
		SM	4.0	Medium Brown, SAND AND SILT, with rounded fine gravel, oxidized, loose, moist.	0.0, 0.0
DP	96	SP	6.7	Orange Brown, MEDIUM SAND, and subrounded fine to coarse gravel, lithic sand, friable, orange-brown oxidation, loose, moist.	1.0, 1.4, 2.2
		SP-SM	8.0	Brown, MEDIUM SAND, little silt, increasing clay with depth, low plasticity, moist.	1.5
DP	75	SP	8.7	Brown, MEDIUM SAND AND GRAVEL, and subangular silt, friable, moist.	1.4
		SP-SM	9.8	Brown, SILT, and very fine sand, firm, low plasticity, saturated, brown-black mottling.	1.5
		SP	12.0	Light Gray To Brown, MEDIUM TO COARSE SAND, with subangular gravel, friable, lithic sand, arenite with thin matrix zones, dry.	2.0, 1.2
DP	50	SP		Brown to gray, MEDIUM TO COARSE SAND, and subangular and subrounded medium gravel, lithic sand, minor silt, brown oxides, friable, abundant quartz clasts from 15 to 16 feet bgs, moist to wet.	1.1, 1.0, 1.3

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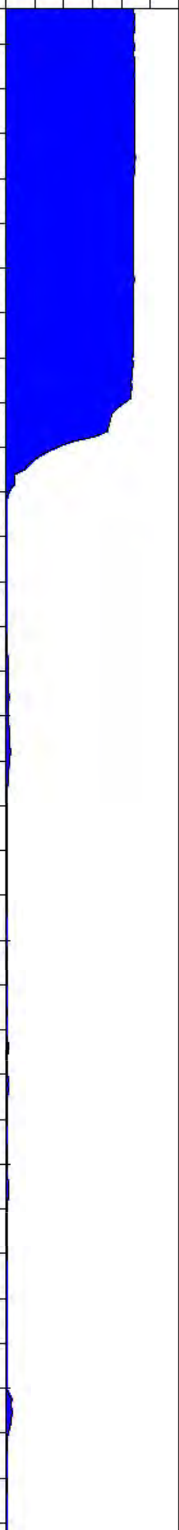
OS-APS/B/MW-026C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

WATERLOO APS (Ik) 1 2 3 4 5



DEPTH (ft)	ELEVATION (feet amsl)
15.0	412.5
17.5	410.0
20.0	407.5
22.5	405.0
25.0	402.5
27.5	400.0
30.0	397.5

SAMPLE TYPE	RECOVERY %
DP	65
DP	100
DP	100
DP	94

U.S.C.S.	Depth (ft)	MATERIAL DESCRIPTION
SP	16.7	Brown to gray, MEDIUM TO COARSE SAND, and subangular and subrounded medium gravel, lithic sand, minor silt, brown oxides, friable, abundant quartz clasts from 15 to 16 feet bgs, moist to wet. *(continued)*
SP	17.2	Brown to gray, COARSE SAND, and gravel, friable, minor silt and clay, wet.
GP	20.3	Brown To Dark Gray, COARSE GRAVEL, little sand, angular and subangular, mixed lithic clasts, friable, loose, saturated.
CL	32.0	Medium Gray, CLAY, and silt, minor fine-grained sand, stiff, low to high plasticity, saturated.

PID (ppm)
1.0
0.5
0.9
1.0
0.9
1.1
0.9
1.2
0.9
1.3
1.0
0.4
0.2
0.6
0.3
0.8

WELL DIAGRAM

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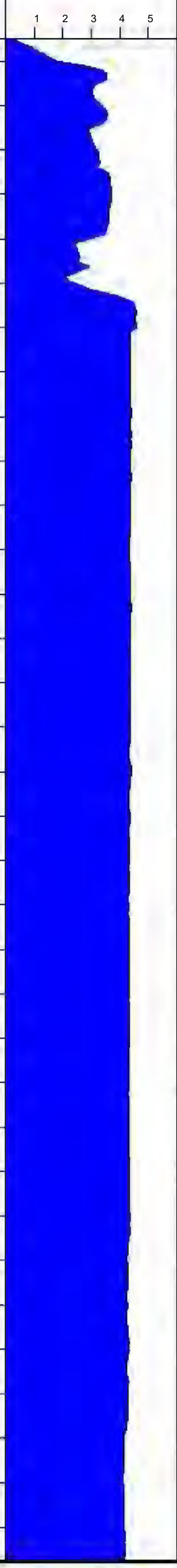
OS-APS/B/MW-026C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5				ML		Medium Gray, SILT, trace sand, soft, saturated.		
	395.0	DP	100	ML	33.4	Medium Gray, SILT, trace sand, soft, saturated. *(continued)*	0.1, 1.2	
35.0	392.5			SM	35.8	Medium Gray, VERY FINE SAND, and silt, minor clay, well sorted, firm, saturated.	0.9, 0.9	
37.5, 40.0, 42.5	390.0, 387.5, 385.0	DP, DP	13, 50	SP	44.0	Light Gray, FINE TO MEDIUM GRAVEL, and medium to coarse sand, angular to subangular clasts, abundant quartz, weakly friable, loose, saturated.	1.2, 1.3, 2.1, 1.9, 1.5	
45.0	382.5	DP	58	SP	45.7	Light Gray, VERY COARSE SAND, subangular lithic, well sorted, saturated.	1.7, 1.8	
47.5	380.0			SP	48.0	Gray, MEDIUM TO COARSE SAND, and subrounded gravel, lithic clasts, loose, saturated.	1.8, 1.6	
				GW-GC		Gray, FINE TO MEDIUM GRAVEL, interbedded medium to coarse sand, angular, subangular and subrounded lithic clasts, shale/ phyllite fragments, coarsening upwards, loose, saturated.	1.0	

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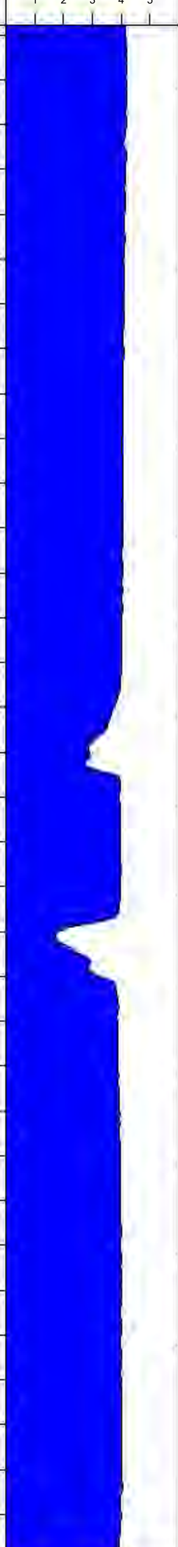
OS-APS/B/MW-026C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
50.0	377.5	DP	38	GW-GC		Gray, FINE TO MEDIUM GRAVEL, interbedded medium to coarse sand, angular, subangular and subrounded lithic clasts, shale/ phyllite fragments, coarsening upwards, loose, saturated. *(continued)*	1.4	Bentonite Grout Seal
52.5	375.0	DP	46				0.9, 1.1, 1.4	
55.0	372.5				57.0		1.5, 0.5	
57.5	370.0	DP	94	SP	59.2	Medium Gray, FINE SAND AND GRAVEL, some silt, subangular gravel, increasing silt content with depth, dense, saturated.	1.8, 1.3	
60.0	367.5	DP	65	GP	64.0	Medium Gray, FINE TO MEDIUM GRAVEL, with coarse sand, subangular, friable, loose, saturated.	0.6, 2.2, 2.2, 2.5, 2.7	
62.5	365.0		1000		64.2	Black PHYLLITE.		
65.0	362.5					Samples for description not available below drilling refusal depth.		

WATERLOO APS (Ik)



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OS-APS/B/MW-026C

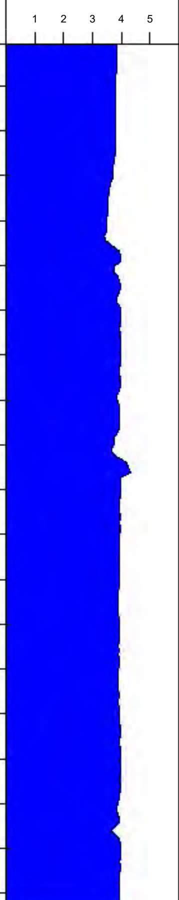
Client: Arnold & Porter

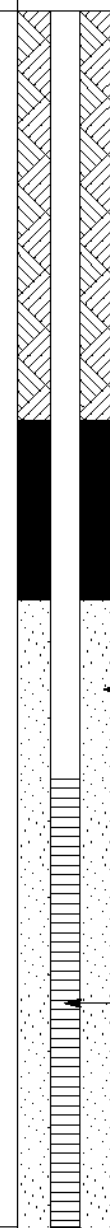
Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
67.5	360.0								
70.0	357.5								
72.5	355.0						Samples for description not available below drilling refusal depth. *(continued)*		
75.0	352.5								
77.5	350.0								
80.0									





Bottom of APS Boring @ 76.00 ft

Bottom of Boring @ 80.00 ft

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OS-APS/B/MW-027A

Client: Arnold & Porter **Project Name:** Hoosick

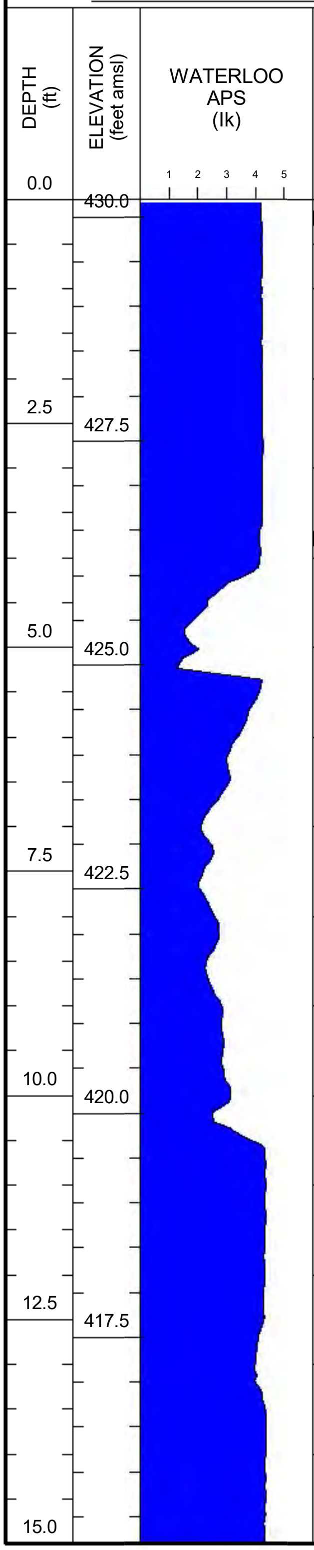
Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/6/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/13/2016
DATE MW COMPLETED: 10/24/2016
GROUND ELEVATION: 430.20 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 105.7 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 429.80 feet amsl

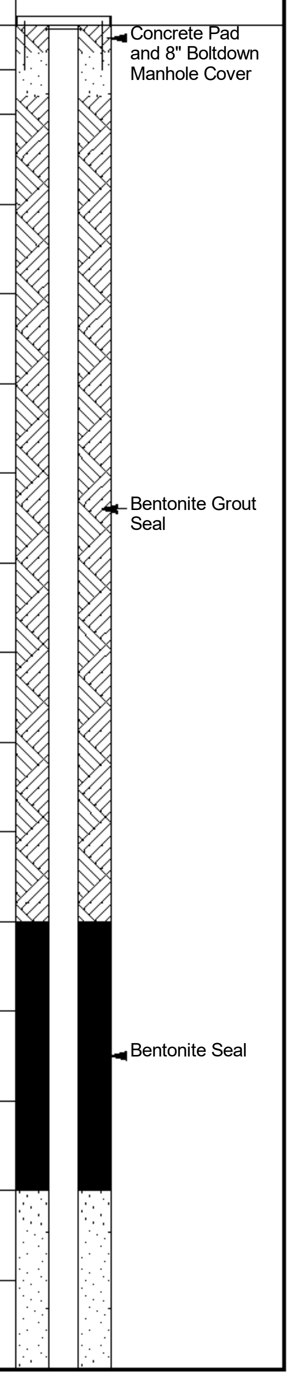
ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Topsoil; USCS Poorly-graded Sand; USCS Low Plasticity Silty Clay; USCS Sandy Silt; USCS Silty Sand; USCS Poorly-graded Gravelly Sand



Sample Type	Recovery %	U.S.C.S.	Bottom Depth (ft)	Material Description
HA	100	SM	1.0	Black, TOPSOIL WITH SILTY SAND AND GRAVEL, fine to medium gravel, rounded to subangular gravel (0.25"-1" diameter), glass and coal fragments, soft, moist.
		SP	2.0	Dark Brown, FINE SAND, some rounded gravel, (0.25" diameter), white flecks, fibrous and laminar, loose, dry.
		CL-ML	4.0	Brown To Olive Brown, CLAYEY SILT, gray mottling from 2 to 3 feet bgs, soft, moist, mottling.
DP	94	CL-ML	5.0	Brown To Gray, CLAYEY SILT, some fine sand, orange oxide stringers, firm, low plasticity, moist.
		ML	8.0	Brown, SANDY SILT, trace clay, oxide stringers, wet at 7.8 feet bgs, firm, low plasticity, moist, weak mottling.
DP	90	ML	9.5	Brown To Red Brown, SANDY SILT, trace clay, weak oxide stringers, firm, low plasticity, wet.
		SM	14.2	Light Gray To Brown, SILTY SAND, trace subangular fine gravel, interbedded, coarse to very-coarse grained lithic clasts, trace clay, loose, wet to saturated.
DP	67	SP		Brown, VERY COARSE SAND, and subangular fine to medium gravel, weak oxide banding from 14.2 to 16 feet bgs, friable, loose, wet to saturated.

PID (ppm): 0.1, 0.1, 0.2, 0.0, 0.0, 0.1, 0.2, 0.1, 0.2, 0.1, 0.2, 0.3, 0.3, 0.2, 0.3, 0.2



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Syracuse, NY 13214
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OS-APS/B/MW-027A

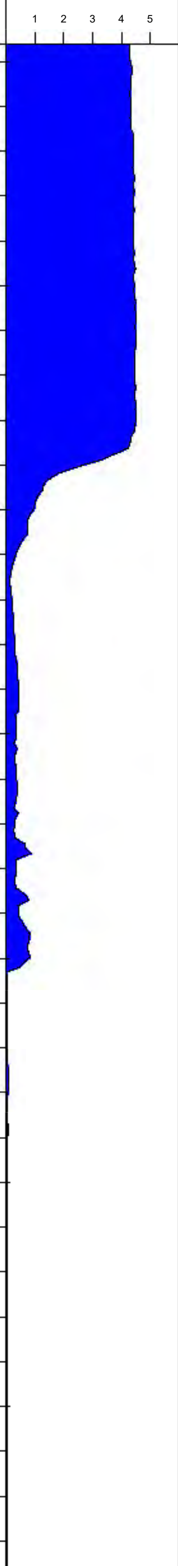
Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	U.S.C.S.	MATERIAL DESCRIPTION
15.0–18.5	SP	Brown, VERY COARSE SAND, and subangular fine to medium gravel, weak oxide banding from 14.2 to 16 feet bgs, friable, loose, wet to saturated. *(continued)*
18.5–20.0	CL	Olive Brown, CLAY, soft to medium stiff, plastic, saturated.
20.0–22.0	CL-ML	Olive Gray, CLAY AND SILT, soft to medium stiff, plastic, saturated.
22.0–24.0	CL-ML	Medium gray, CLAYEY SILT, soft to medium stiff, semi plastic, saturated.
24.0–32.0	CL-ML	Medium Gray, SILTY CLAY, high plasticity & medium stiff, saturated.

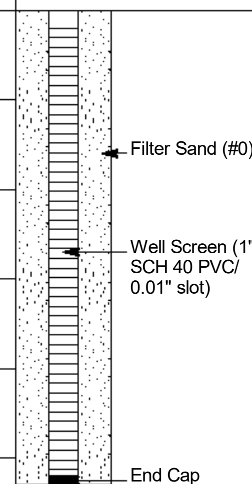
SAMPLE TYPE	RECOVERY %
DP	81
DP	96
DP	100
DP	100

DEPTH (ft)	ELEVATION (feet amsl)	PID (ppm)
15.0	415.0	0.2
		0.2
17.5	412.5	0.1
		0.0
		0.0
20.0	410.0	0.0
		0.0
22.5	407.5	0.0
		0.0
		0.2
25.0	405.0	0.0
		0.0
27.5	402.5	0.0
		0.0
		0.0
30.0	400.0	0.0
		0.0

WATERLOO APS (Ik)



WELL DIAGRAM



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OS-APS/B/MW-027A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	U.S.C.S.	MATERIAL DESCRIPTION
32.5	397.5	CL-ML	Dark Gray, CLAYEY SILT, semi firm, saturated. Dark Gray, CLAYEY SILT, semi firm, saturated. *(continued)*
34.0		ML	Medium Gray, SILT, little fine sand, firm, saturated.
35.0	395.0		
36.0		SP	Medium gray, FINE SAND, trace silt, firm, saturated.
37.5	392.5		
40.0	390.0	ML	Medium to dark gray, SANDY SILT, trace clay, soft to medium stiff, low plasticity, saturated.
40.6		CL-ML	Medium Gray, CLAYEY SILT, high plasticity, saturated.
42.5	387.5		
45.0	385.0	CL-ML	Medium Gray, SILTY CLAY, interbedded sandy silt, stiff, low to high plasticity, saturated.
47.5	382.5		

SAMPLE TYPE	RECOVERY %
DP	
DP	
DP	100
DP	96

PID (ppm)
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

WATERLOO APS (Ik) 1 2 3 4 5

WELL DIAGRAM

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Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
50.0	380.0		DP	100	CL-ML	51.5	Medium Gray, SILTY CLAY, interbedded sandy silt, stiff, low to high plasticity, saturated. *(continued)*	0.0 0.0 0.0	
52.5	377.5				ML	53.0	Medium Gray, FINE SANDY SILT, stiff, saturated.	0.0	
55.0 57.5	375.0 372.5		DP DP	100 100	CL-ML	59.0	Medium Gray, CLAY AND SILT, interbedded medium to high plasticity, saturated.	0.0 0.0 0.0 0.0 0.0 0.0	
60.0	370.0				ML	61.2	Medium Gray, SANDY SILT, trace clay, sands increasing with depth, semi firm, saturated.	0.0 0.0	
62.5 65.0	367.5 365.0		DP DP	100 100	CL-ML		Medium gray, CLAY AND SILT, interbedded very fine sand, stiff, low plasticity, saturated.	0.0 0.0 0.0 0.0 0.0	

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Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
								0.0	
67.5	362.5							0.0	
								0.0	
								0.0	
70.0	360.0		DP	100				0.0	
								0.0	
72.5	357.5							0.0	
								0.0	
			DP	100				0.0	
75.0	355.0				CL-ML		Medium gray, CLAY AND SILT, interbedded very fine sand, stiff, low plasticity, saturated. *(continued)*	0.0	
								0.0	
77.5	352.5							0.0	
			DP	100				0.0	
80.0	350.0							0.0	
								0.0	
								0.0	
82.5	347.5		DP	100				0.0	
						83.3			
					ML				

APS scale: 1 2 3 4 5

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OS-APS/B/MW-027A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
					ML		Medium Gray, SILT, well sorted, firm, saturated.	0.0	
84.0							Medium Gray, SILT, well sorted, firm, saturated. *(continued)*		
85.0	345.0		DP	60			No Recovery; Heaving Sands.	0.0	
								0.0	
								0.0	
87.5	342.5							0.0	
88.0									
			DP	100	SP		Dark gray, FINE SAND, trace silt and clay, salt and pepper lithic sand, semi firm, saturated.	0.0	
								0.0	
90.0	340.0								
					SC		Dark Gray, CLAYEY SAND, with very fine silt, interbedded, low plasticity, saturated.	0.0	
91.5								0.0	
92.0					GP		Medium gray, COARSE GRAVEL, and subrounded fine to medium sand, dense, saturated.		
92.5	337.5								
95.0	335.0						Samples for description not available below drilling refusal depth.		
97.5	332.5								
100.0	330.0								

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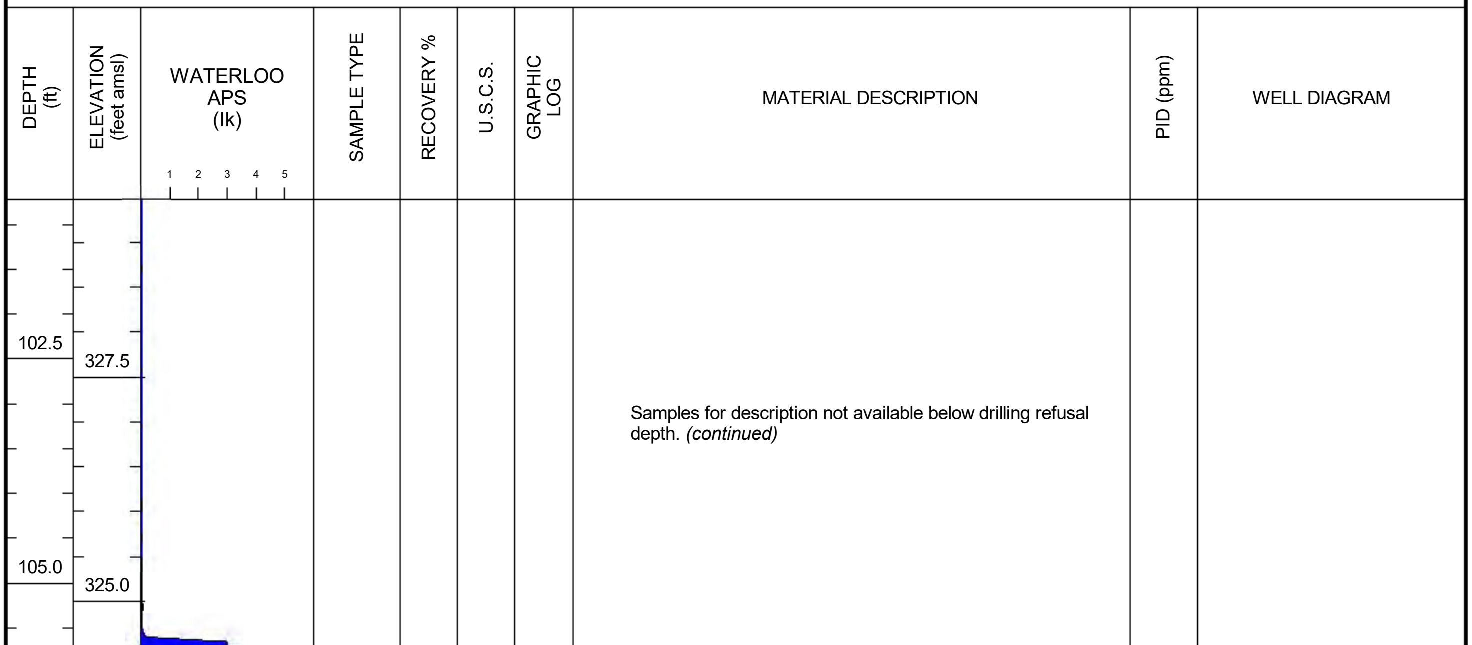
OS-APS/B/MW-027A

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York



Samples for description not available below drilling refusal depth. *(continued)*

Bottom of APS Boring @ 105.70 ft

Bottom of Boring @ 92.00 ft

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OS-APS/B/MW-027B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/6/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/13/2016
DATE MW COMPLETED: 10/24/2016
GROUND ELEVATION: 430.30 feet amsl
NOTES:

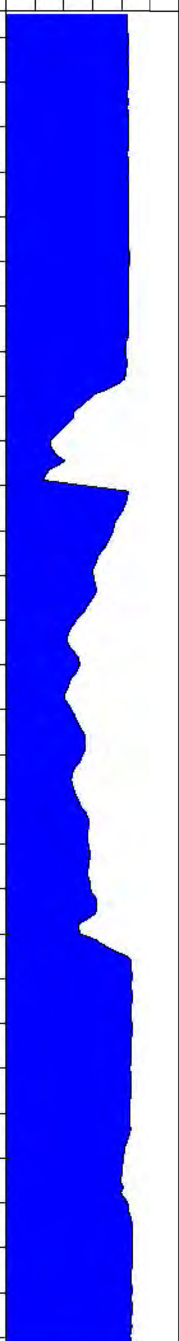
DRILLING METHOD: Hollow Stem Auger
TOTAL DEPTH: 105.7 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 430.00 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Topsoil; USCS Poorly-graded Sand; USCS Low Plasticity Silty Clay; USCS Sandy Silt; USCS Silty Sand; USCS Poorly-graded Gravelly Sand

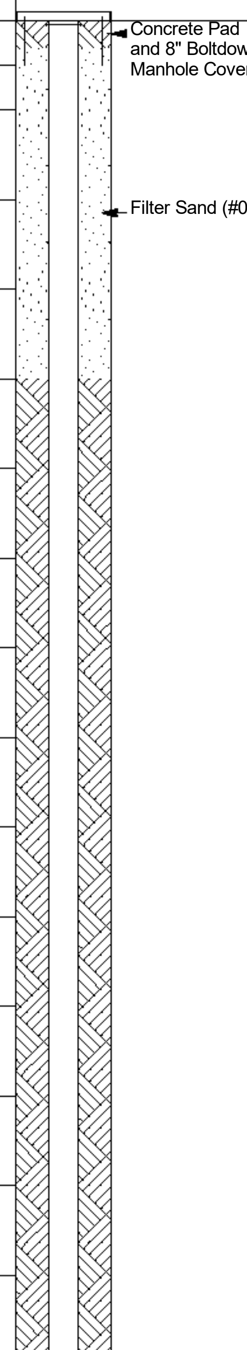
DEPTH (ft): 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0
ELEVATION (feet amsl): 430.0, 427.5, 425.0, 422.5, 420.0, 417.5

WATERLOO APS (Ik) 1 2 3 4 5



Depth to (ft)	Sample Type	Recovery %	U.S.C.S.	Material Description	PID (ppm)
1.0	HA	100	SM	Black, TOPSOIL WITH SILTY SAND AND GRAVEL, fine to medium gravel, rounded to subangular gravel (0.25"-1" diameter), glass and coal fragments, soft, moist.	0.1, 0.1
2.0			SP	Dark Brown, FINE SAND, some rounded gravel, (0.25" diameter), white flecks, fibrous and laminar, loose, dry.	0.2
4.0			CL-ML	Brown To Olive Brown, CLAYEY SILT, gray mottling from 2 to 3 feet bgs, soft, moist, mottling.	0.0, 0.0
5.0	DP	94	CL-ML	Brown To Gray, CLAYEY SILT, some fine sand, orange oxide stringers, firm, low plasticity, moist.	0.1
8.0			ML	Brown, SANDY SILT, trace clay, oxide stringers, wet at 7.8 feet bgs, firm, low plasticity, moist, weak mottling.	0.2, 0.1, 0.2
9.5	DP	90	ML	Brown To Red Brown, SANDY SILT, trace clay, weak oxide stringers, firm, low plasticity, wet.	0.1
14.2	DP	67	SM	Light Gray To Brown, SILTY SAND, trace subangular fine gravel, interbedded, coarse to very-coarse grained lithic clasts, trace clay, loose, wet to saturated.	0.2, 0.3, 0.3, 0.2, 0.3
			SP	Brown, VERY COARSE SAND, and subangular fine to medium gravel, weak oxide banding from 14.2 to 16 feet bgs, friable, loose, wet to saturated.	0.2

WELL DIAGRAM



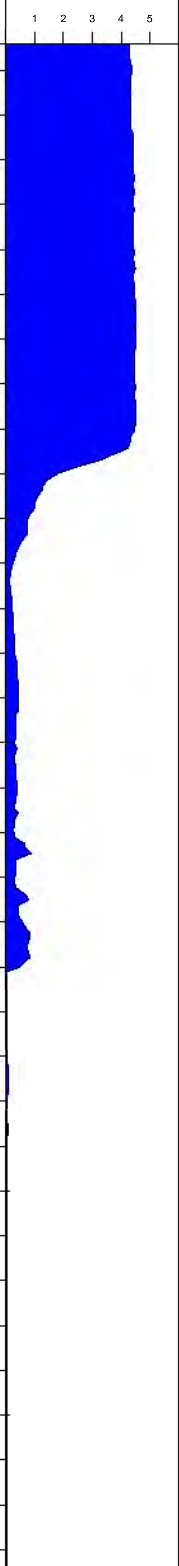
ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-027B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)
15.0	415.0
17.5	412.5
20.0	410.0
22.5	407.5
25.0	405.0
27.5	402.5
30.0	400.0

WATERLOO APS (Ik)



Depth interval (ft)	SAMPLE TYPE	RECOVERY %
16.0–20.0	DP	81
20.0–24.0	DP	96
24.0–28.0	DP	100
28.0–32.0	DP	100

Bottom depth (ft)	U.S.C.S.	MATERIAL DESCRIPTION
18.5	SP	Brown, VERY COARSE SAND, and subangular fine to medium gravel, weak oxide banding from 14.2 to 16 feet bgs, friable, loose, wet to saturated. *(continued)*
20.0	CL	Olive Brown, CLAY, soft to medium stiff, plastic, saturated.
22.0	CL-ML	Olive Gray, CLAY AND SILT, soft to medium stiff, plastic, saturated.
24.0	CL-ML	Medium gray, CLAYEY SILT, soft to medium stiff, semi plastic, saturated.
32.0	CL-ML	Medium Gray, SILTY CLAY, high plasticity & medium stiff, saturated.

PID (ppm)
0.2
0.2
0.1
0.0
0.0
0.0
0.0
0.0
0.0
0.2
0.0
0.0
0.0
0.0
0.0
0.0
0.0

WELL DIAGRAM

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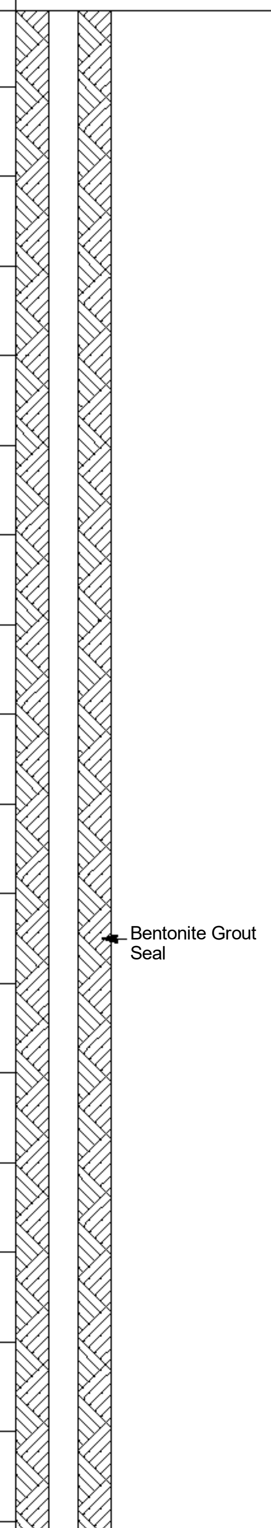
OS-APS/B/MW-027B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
32.5	397.5	DP		CL-ML	32.5 Dark Gray, CLAYEY SILT, semi firm, saturated. Dark Gray, CLAYEY SILT, semi firm, saturated. *(continued)*	0.0
				ML	Medium Gray, SILT, little fine sand, firm, saturated. 34.0	0.0
35.0	395.0			SP	Medium gray, FINE SAND, trace silt, firm, saturated. 36.0	0.0, 0.0, 0.0
37.5	392.5	DP		ML	Medium to dark gray, SANDY SILT, trace clay, soft to medium stiff, low plasticity, saturated. 40.0	0.0, 0.0, 0.0, 0.0, 0.0
40.0	390.0	DP	100	CL-ML	40.6 Medium Gray, CLAYEY SILT, high plasticity, saturated.	0.0
42.5	387.5					0.0, 0.0, 0.0
45.0	385.0	DP	96	CL-ML	Medium Gray, SILTY CLAY, interbedded sandy silt, stiff, low to high plasticity, saturated.	0.0, 0.0, 0.0, 0.0
47.5	382.5					0.0, 0.0

WATERLOO APS (Ik) 1 2 3 4 5



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OS-APS/B/MW-027B

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
50.0	380.0		DP	100	CL-ML	51.5	Medium Gray, SILTY CLAY, interbedded sandy silt, stiff, low to high plasticity, saturated. *(continued)*	0.0, 0.0, 0.0	
52.5	377.5				ML	53.0	Medium Gray, FINE SANDY SILT, stiff, saturated.	0.0	
55.0, 57.5	375.0, 372.5		DP, DP	100, 100	CL-ML	59.0	Medium Gray, CLAY AND SILT, interbedded medium to high plasticity, saturated.	0.0, 0.0, 0.0, 0.0, 0.0, 0.0	
60.0	370.0				ML	61.2	Medium Gray, SANDY SILT, trace clay, sands increasing with depth, semi firm, saturated.	0.0, 0.0	
62.5, 65.0	367.5, 365.0		DP, DP	100, 100	CL-ML		Medium gray, CLAY AND SILT, interbedded very fine sand, stiff, low plasticity, saturated.	0.0, 0.0, 0.0, 0.0, 0.0	

WATERLOO APS scale: 1 2 3 4 5

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OS-APS/B/MW-027B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
								0.0	
67.5	362.5							0.0	
								0.0	
								0.0	
70.0	360.0		DP	100				0.0	
								0.0	
72.5	357.5							0.0	
			DP	100				0.0	
								0.0	
75.0	355.0				CL-ML		Medium gray, CLAY AND SILT, interbedded very fine sand, stiff, low plasticity, saturated. *(continued)*	0.0	
								0.0	
77.5	352.5		DP	100				0.0	
								0.0	
								0.0	
80.0	350.0							0.0	
								0.0	
			DP	100					Bentonite Seal
82.5	347.5							0.0	
					ML	83.3			

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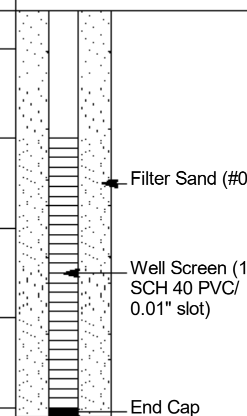
OS-APS/B/MW-027B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
84.0				ML	Medium Gray, SILT, well sorted, firm, saturated. *(continued)*	0.0
84.0–88.0	345.0, 342.5	DP	60		No Recovery; Heaving Sands.	0.0, 0.0, 0.0, 0.0, 0.0
88.0–90.0		DP	100	SP	Dark gray, FINE SAND, trace silt and clay, salt and pepper lithic sand, semi firm, saturated.	0.0, 0.0
90.0–91.5	340.0			SC	Dark Gray, CLAYEY SAND, with very fine silt, interbedded, low plasticity, saturated.	0.0
91.5–92.0				GP	Medium gray, COARSE GRAVEL, and subrounded fine to medium sand, dense, saturated.	0.0
below 92.0					Samples for description not available below drilling refusal depth.	

Depth scale (ft): 85.0, 87.5, 90.0, 92.5, 95.0, 97.5, 100.0
Elevation scale (feet amsl): 345.0, 342.5, 340.0, 337.5, 335.0, 332.5, 330.0

WATERLOO APS (Ik): 1 2 3 4 5



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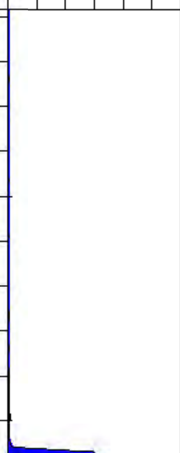
Telephone: (315) 445-2554

OS-APS/B/MW-027B

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
102.5	327.5						Samples for description not available below drilling refusal depth. *(continued)*		
105.0	325.0								



Bottom of APS Boring @ 105.70 ft

Bottom of Boring @ 92.00 ft

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OS-APS/B/MW-027C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

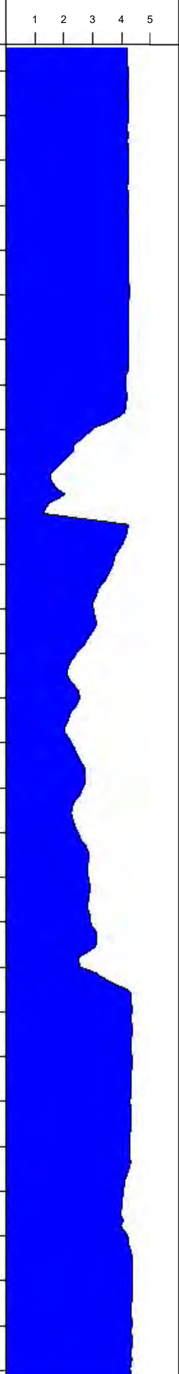
APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/6/2016
B/MW CONTRACTOR: Parratt Wolff, Inc.
DATE B COMPLETED: 10/13/2016
DATE MW COMPLETED: 10/24/2016
GROUND ELEVATION: 430.30 feet amsl
NOTES:

DRILLING METHOD: Hollow Stem Auger
TOTAL DEPTH: 105.7 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 430.10 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

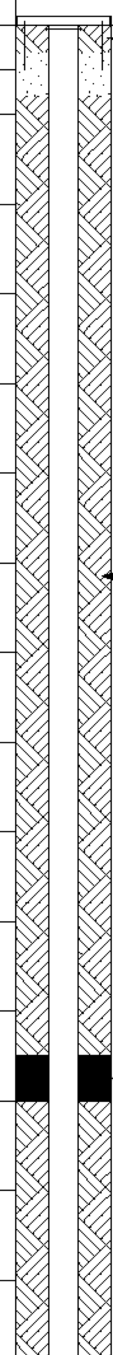
GRAPHIC LOG LEGEND
Topsoil; USCS Poorly-graded Sand; USCS Low Plasticity Silty Clay; USCS Sandy Silt; USCS Silty Sand; USCS Poorly-graded Gravelly Sand

WATERLOO APS (Ik)



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–1.0	430.0	HA	100	SM	Black, TOPSOIL WITH SILTY SAND AND GRAVEL, fine to medium gravel, rounded to subangular gravel (0.25"-1" diameter), glass and coal fragments, soft, moist.	0.1, 0.1
1.0–2.0				SP	Dark Brown, FINE SAND, some rounded gravel, (0.25" diameter), white flecks, fibrous and laminar, loose, dry.	0.2
2.0–4.0	427.5			CL-ML	Brown To Olive Brown, CLAYEY SILT, gray mottling from 2 to 3 feet bgs, soft, moist, mottling.	0.0, 0.0
4.0–5.0		DP	94	CL-ML	Brown To Gray, CLAYEY SILT, some fine sand, orange oxide stringers, firm, low plasticity, moist.	0.1
5.0–8.0	425.0			ML	Brown, SANDY SILT, trace clay, oxide stringers, wet at 7.8 feet bgs, firm, low plasticity, moist, weak mottling.	0.2, 0.1, 0.2
8.0–9.5	422.5	DP	90	ML	Brown To Red Brown, SANDY SILT, trace clay, weak oxide stringers, firm, low plasticity, wet.	0.1, 0.2
9.5–14.2	420.0, 417.5	DP	67	SM	Light Gray To Brown, SILTY SAND, trace subangular fine gravel, interbedded, coarse to very-coarse grained lithic clasts, trace clay, loose, wet to saturated.	0.3, 0.3, 0.2, 0.3
14.2–15.0				SP	Brown, VERY COARSE SAND, and subangular fine to medium gravel, weak oxide banding from 14.2 to 16 feet bgs, friable, loose, wet to saturated.	0.2

WELL DIAGRAM



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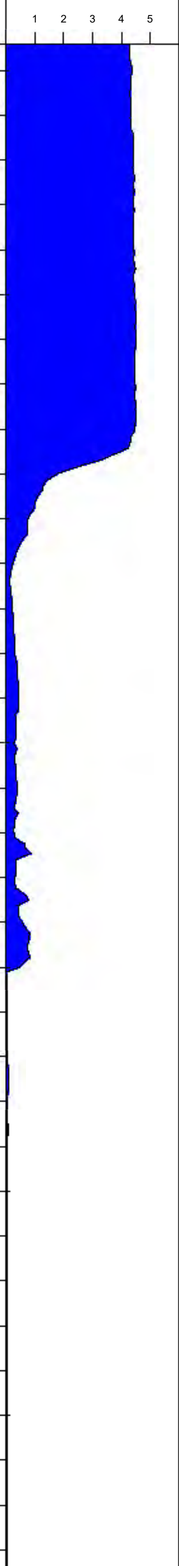
OS-APS/B/MW-027C

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
15.0	415.0			SP	Brown, VERY COARSE SAND, and subangular fine to medium gravel, weak oxide banding from 14.2 to 16 feet bgs, friable, loose, wet to saturated. *(continued)*	0.2
						0.2
17.5	412.5	DP	81			0.1
					18.5	0.0
				CL	Olive Brown, CLAY, soft to medium stiff, plastic, saturated.	0.0
20.0	410.0				20.0	
				CL-ML	Olive Gray, CLAY AND SILT, soft to medium stiff, plastic, saturated.	0.0
		DP	96		22.0	0.0
22.5	407.5			CL-ML	Medium gray, CLAYEY SILT, soft to medium stiff, semi plastic, saturated.	0.0
					24.0	0.0
25.0	405.0					0.2
		DP	100			0.0
						0.0
27.5	402.5			CL-ML	Medium Gray, SILTY CLAY, high plasticity & medium stiff, saturated.	0.0
						0.0
30.0	400.0	DP	100			0.0
						0.0
					32.0	0.0

WATERLOO APS (Ik)



GRAPHIC LOG

WELL DIAGRAM

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-027C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	Bottom depth	MATERIAL DESCRIPTION
32.5	397.5	DP		CL-ML	32.5	Dark Gray, CLAYEY SILT, semi firm, saturated. Dark Gray, CLAYEY SILT, semi firm, saturated. *(continued)*
				ML	34.0	Medium Gray, SILT, little fine sand, firm, saturated.
35.0	395.0			SP	36.0	Medium gray, FINE SAND, trace silt, firm, saturated.
37.5	392.5	DP		ML	40.0	Medium to dark gray, SANDY SILT, trace clay, soft to medium stiff, low plasticity, saturated.
40.0	390.0	DP	100	CL-ML	40.6	Medium Gray, CLAYEY SILT, high plasticity, saturated.
42.5	387.5					
45.0	385.0	DP	96	CL-ML		Medium Gray, SILTY CLAY, interbedded sandy silt, stiff, low to high plasticity, saturated.
47.5	382.5					

WATERLOO APS (Ik): 1 2 3 4 5

PID (ppm): 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0

WELL DIAGRAM: Bentonite Grout Seal

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OS-APS/B/MW-027C

Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION
50.0–51.5	380.0	DP	100	CL-ML	Medium Gray, SILTY CLAY, interbedded sandy silt, stiff, low to high plasticity, saturated. *(continued)*
51.5–53.0	377.5	DP	100	ML	Medium Gray, FINE SANDY SILT, stiff, saturated.
53.0–59.0	375.0, 372.5	DP	100	CL-ML	Medium Gray, CLAY AND SILT, interbedded medium to high plasticity, saturated.
59.0–61.2	370.0	DP	100	ML	Medium Gray, SANDY SILT, trace clay, sands increasing with depth, semi firm, saturated.
61.2–	367.5, 365.0	DP	100	CL-ML	Medium gray, CLAY AND SILT, interbedded very fine sand, stiff, low plasticity, saturated.

WATERLOO APS (Ik): scale 1 2 3 4 5

PID (ppm): 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0

Depth marks: 50.0, 52.5, 55.0, 57.5, 60.0, 62.5, 65.0

WELL DIAGRAM

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OS-APS/B/MW-027C

Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
								0.0	
67.5	362.5							0.0	
								0.0	
								0.0	
70.0	360.0		DP	100				0.0	
								0.0	
72.5	357.5							0.0	
			DP	100				0.0	
								0.0	
75.0	355.0				CL-ML		Medium gray, CLAY AND SILT, interbedded very fine sand, stiff, low plasticity, saturated. *(continued)*	0.0	
								0.0	
77.5	352.5		DP	100				0.0	
								0.0	
								0.0	
80.0	350.0							0.0	
								0.0	
82.5	347.5		DP	100				0.0	
						83.3			
					ML				

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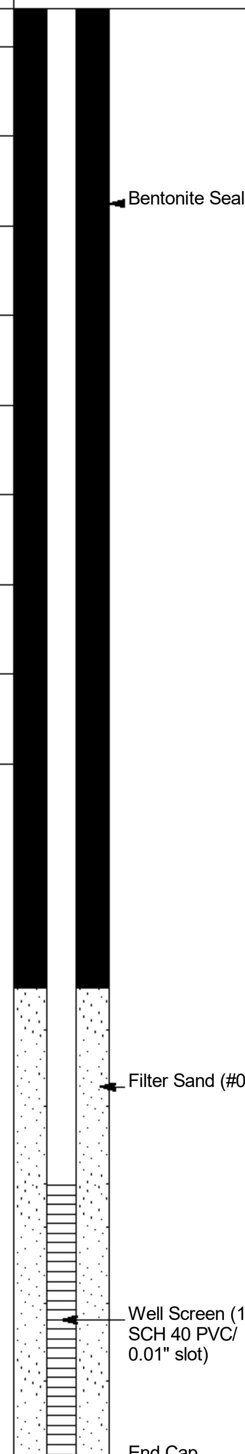
OS-APS/B/MW-027C

Client: Arnold & Porter
Project Number: 0378075
Project Name: Hoosick
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
					ML		Medium Gray, SILT, well sorted, firm, saturated.	0.0
84.0							Medium Gray, SILT, well sorted, firm, saturated. *(continued)*	
85.0	345.0							0.0
								0.0
			DP	60			No Recovery; Heaving Sands.	0.0
87.5	342.5							0.0
88.0								0.0
					SP		Dark gray, FINE SAND, trace silt and clay, salt and pepper lithic sand, semi firm, saturated.	0.0
90.0	340.0		DP	100				
					SC		Dark Gray, CLAYEY SAND, with very fine silt, interbedded, low plasticity, saturated.	0.0
91.5								0.0
92.0					GP		Medium gray, COARSE GRAVEL, and subrounded fine to medium sand, dense, saturated.	
92.5	337.5							
95.0	335.0						Samples for description not available below drilling refusal depth.	
97.5	332.5							
100.0	330.0							

WELL DIAGRAM



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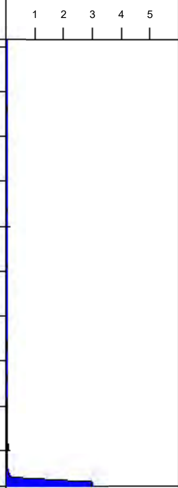
Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
102.5	327.5						Samples for description not available below drilling refusal depth. *(continued)*		
105.0	325.0								



Bottom of APS Boring @ 105.70 ft

Bottom of Boring @ 92.00 ft

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Telephone: (315) 445-2554

OS-APS/B/MW-028A&B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/3/2016
B/MW CONTRACTOR: Cascade
DATE B COMPLETED: 10/10/2016
DATE MW COMPLETED: 11/3/2016
GROUND ELEVATION: 438.70 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 101.22 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ J. Reynolds
CHECKED BY: H. Usle
TOC ELEVATION: 438.30 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Asphalt
USCS Poorly-graded Gravelly Sand
USCS Low Plasticity Sandy Clay
USCS Poorly-graded Sandy Gravel
USCS Clayey Gravel
USCS Low Plasticity Clay

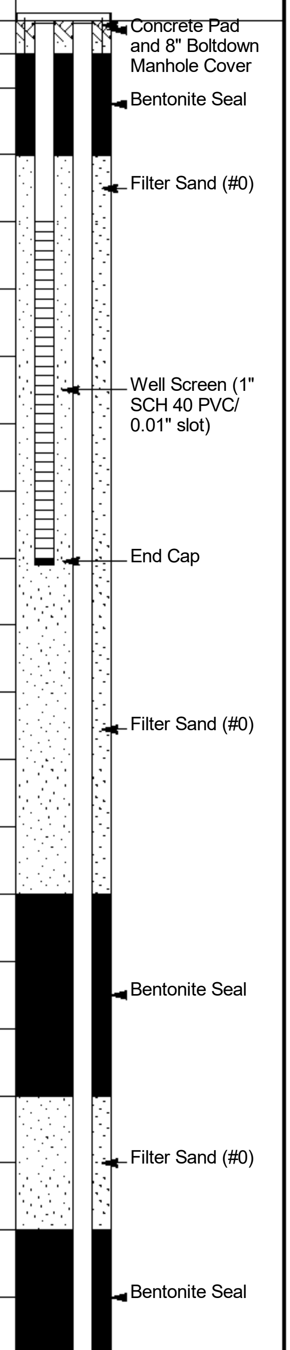
WATERLOO APS (Ik) 1 2 3 4 5

DEPTH (ft)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION
0.0–0.3	HA	100		Black, ASPHALT.
0.3–2.0	HA	100	SP	Dark Brown To Black, MEDIUM TO COARSE GRAVELLY SAND, trace clay, subangular and rounded gravel (0.25"-2" diameter), brick, slag, and shale fragments, white flecks and fibrous material 1 to 2 feet bgs, loose, dry to moist.
2.0–4.0	HA	100	SP	Light brown, FINE TO COARSE GRAVELLY SAND, trace silt, subrounded gravel (1"-2" diameter), some cobbles (6" diameter), white flecks, loose, moist to wet.
4.0–5.0	HA	100	CL	Grayish Brown, SANDY CLAY, some subrounded gravel, (0.25" diameter), medium-grained sand, soft, semi plastic, moist to wet.
5.0–8.0	DP	50	GP	Brown, FINE SANDY GRAVEL, some subangular cobbles, dense, moist.
8.0–14.0	DP (8–12: 10%; 12–16: 50%)	10 / 50	GC	Brown, CLAY AND GRAVEL, little subangular sand, slight "organic-like" odor, medium dense, wet to saturated.
14.0–15.0	DP	50	CL	Grayish Brown, CLAY, trace fine to medium sand, slight "organic-like" odor, soft, plastic, saturated.
15.0–16.0	DP	50	CL	Grayish Brown, GRAVELLY CLAY, subangular fine to medium gravel, slight "organic-like" odor, soft, saturated.
16.0–20.0	DP	100	CL	Grayish Brown, CLAY, trace silt, soft, plastic, saturated.

Elevation (feet amsl): 435 (approx. 3.7 ft), 430 (approx. 8.7 ft), 425 (approx. 13.7 ft), 420 (approx. 18.7 ft)

PID (ppm), top to bottom: 0.2, 0.2, 0.0, 0.0, 0.1, 0.1, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0

WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-028A&B

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
20								0.0	
								0.0	
			DP	100				0.0	
	415							0.0	
25								0.0	
			DP	75				0.0	
								0.0	
								0.0	
	410							0.0	
30			DP	100	CL		Grayish Brown, CLAY, trace silt, soft, plastic, saturated. *(continued)*	0.0	
								0.0	
								0.0	
								0.0	
	405		DP	100				0.0	
35								0.0	
								0.0	
								0.2	
			DP	100				0.2	
	400							0.3	
40						40.0		0.3	
					SP-SC		Grayish Brown, CLAYEY SAND, fine to medium sand, medium dense, plastic, saturated.	0.2	
			DP	100		42.0		0.2	
					CL		Grayish Brown, SANDY CLAY, fine sand, soft, saturated.	0.2	

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OS-APS/B/MW-028A&B

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

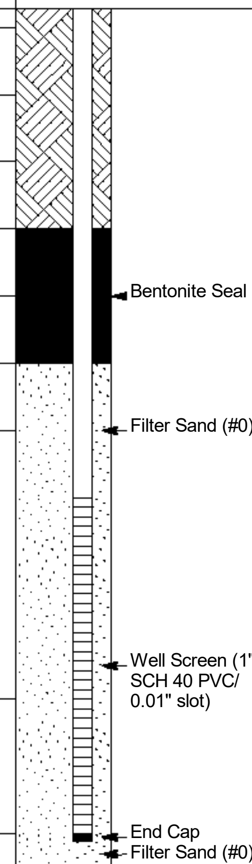
DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	395					43.0		0.2	
45					SM		Grayish Brown, SILTY SAND, trace clay, fine-grained, firm, saturated.	0.1	Bentonite Grout Seal
			DP	100		45.5		0.1	
								0.1	
								0.0	
	390							0.2	
50			DP	100				0.2	
								0.2	
								0.2	
								0.5	
	385							0.4	
55			DP	100				0.5	
					CL-ML		Grayish Brown, SILTY CLAY, interbedded with clayey silt, soft to stiff, medium plasticity, saturated.	0.5	
								0.2	
								0.3	
	380		DP	100				0.2	
60								0.2	
								0.0	
			DP	100				0.0	
								0.0	
	375							0.0	
65								0.0	
								0.0	

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter | **Project Name:** Hoosick
Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
		DP	100	CL-ML	Grayish Brown, SILTY CLAY, interbedded with clayey silt, soft to stiff, medium plasticity, saturated. *(continued)* (to 68.0)	0.0, 0.0
70	370	DP	100	ML	Brown, SILT, trace fine sand, some clay, soft, plastic, saturated. (to 72.0)	0.0, 0.0, 0.0, 0.0
	365	DP	13	SW	Grayish Brown, FINE TO COARSE GRAVELLY SAND, subrounded, well sorted, loose, saturated. (to 74.0)	0.0
75				GP	Grayish Brown, SANDY GRAVEL, trace silt, fine subrounded gravel, fine- to coarse-grained sand, poorly sorted, loose, saturated. (to 84.0)	
	360	DP	38			0.0, 0.0
80		DP	23			
85	355	DP	0		No Recovery.	

WATERLOO APS (Ik) 1 2 3 4 5



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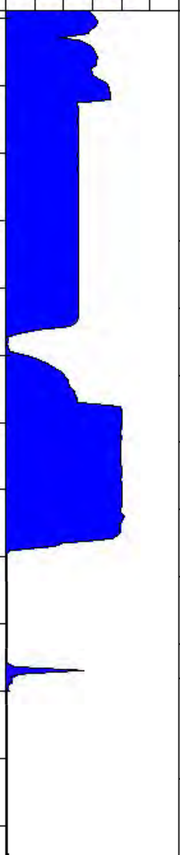
OS-APS/B/MW-028A&B

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
90	350	DP	0			No Recovery. *(continued)*		
92.0	345	DP	92	SP		Gray, FINE TO COARSE GRAVELLY SAND, subrounded fine to medium gravel, shale fragments, poorly graded, medium dense, saturated.	0.0 0.0 0.0 0.0	
95 / 96.0		DP	54	SP		Black, MEDIUM TO COARSE SAND, with rounded coarse gravel, poorly sorted, firm, wet.	0.0 0.0 0.0	
98.6	340					Samples for description not available below drilling refusal depth.		
100								

Bottom of APS Boring @ 101.22 ft

Bottom of Boring @ 98.20 ft

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-028C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Cascade
DATE APS COMPLETED: 10/3/2016
B/MW CONTRACTOR: Cascade
DATE B COMPLETED: 10/10/2016
DATE MW COMPLETED: 11/3/2016
GROUND ELEVATION: 438.70 feet amsl
NOTES:

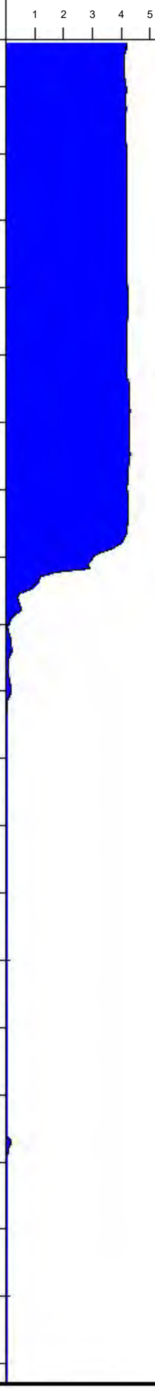
DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 101.22 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ J. Reynolds
CHECKED BY: H. Usle
TOC ELEVATION: 438.30 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

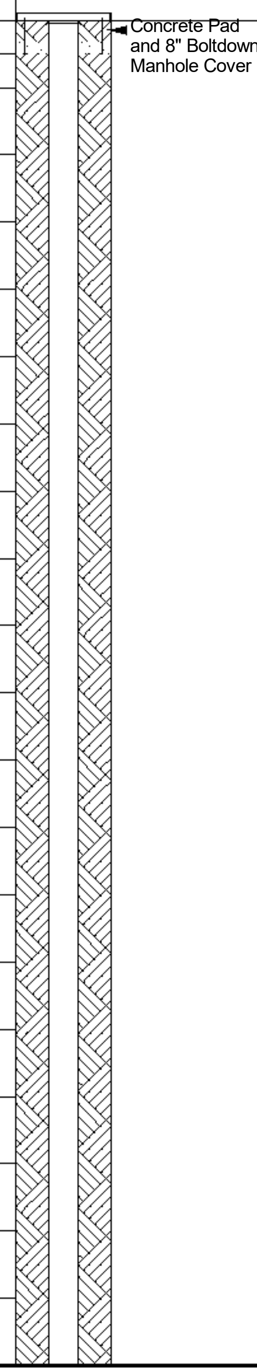
GRAPHIC LOG LEGEND
Asphalt
USCS Poorly-graded Gravelly Sand
USCS Low Plasticity Sandy Clay
USCS Poorly-graded Sandy Gravel
USCS Clayey Gravel
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0–0.3		HA	100		Black, ASPHALT.	0.2
0.3–2.0		HA	100	SP	Dark Brown To Black, MEDIUM TO COARSE GRAVELLY SAND, trace clay, subangular and rounded gravel (0.25"-2" diameter), brick, slag, and shale fragments, white flecks and fibrous material 1 to 2 feet bgs, loose, dry to moist.	0.2, 0.0
2.0–4.0	435	HA	100	SP	Light brown, FINE TO COARSE GRAVELLY SAND, trace silt, subrounded gravel (1"-2" diameter), some cobbles (6" diameter), white flecks, loose, moist to wet.	0.0, 0.1
4.0–5.0		HA	100	CL	Grayish Brown, SANDY CLAY, some subrounded gravel, (0.25" diameter), medium-grained sand, soft, semi plastic, moist to wet.	0.1
5.0–8.0		DP	50	GP	Brown, FINE SANDY GRAVEL, some subangular cobbles, dense, moist.	0.0, 0.0, 0.0
8.0–14.0	430, 425	DP / DP	10 / 50	GC	Brown, CLAY AND GRAVEL, little subangular sand, slight "organic-like" odor, medium dense, wet to saturated.	0.0, 0.0, 0.0, 0.0, 0.0, 0.0
14.0–15.0		DP	50	CL	Grayish Brown, CLAY, trace fine to medium sand, slight "organic-like" odor, soft, plastic, saturated.	0.0
15.0–16.0		DP	50	CL	Grayish Brown, GRAVELLY CLAY, subangular fine to medium gravel, slight "organic-like" odor, soft, saturated.	0.0
16.0–20	420	DP	100	CL	Grayish Brown, CLAY, trace silt, soft, plastic, saturated.	0.0, 0.0, 0.0, 0.0

WATERLOO APS (Ik)



WELL DIAGRAM



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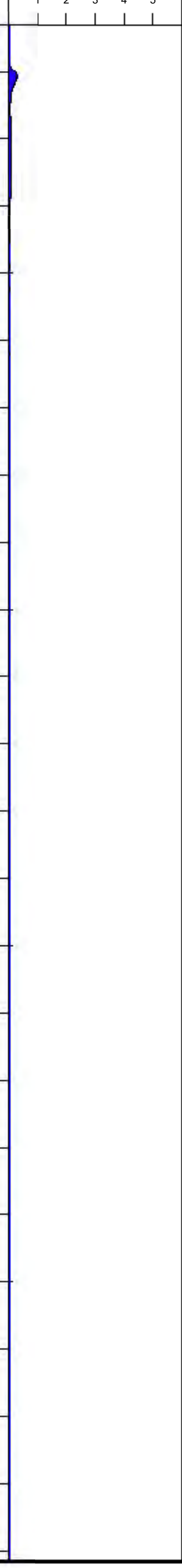
Telephone: (315) 445-2554

OS-APS/B/MW-028C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

WATERLOO APS (Ik) 1 2 3 4 5



DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
20		DP	100	CL		Grayish Brown, CLAY, trace silt, soft, plastic, saturated. *(continued)*	0.0	
							0.0	
							0.0	
	415						0.0	
		DP	75				0.0	
25							0.0	
							0.0	
							0.0	
	410	DP	100				0.0	
							0.0	
30							0.0	
							0.0	
		DP	100				0.0	
	405						0.0	
							0.0	
35							0.0	
		DP	100				0.2	
							0.2	
	400						0.3	
							0.3	
40		DP	100	SP-SC	40.0	Grayish Brown, CLAYEY SAND, fine to medium sand, medium dense, plastic, saturated.	0.2	
							0.2	
				CL	42.0	Grayish Brown, SANDY CLAY, fine sand, soft, saturated.	0.2	

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OS-APS/B/MW-028C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	395					43.0		0.2	
45					SM		Grayish Brown, SILTY SAND, trace clay, fine-grained, firm, saturated.	0.1	
			DP	100		45.5		0.1	
								0.1	Bentonite Grout Seal
								0.0	
	390							0.2	
50			DP	100				0.2	
								0.2	
								0.2	
								0.5	
	385		DP	100				0.4	
55								0.5	
					CL-ML		Grayish Brown, SILTY CLAY, interbedded with clayey silt, soft to stiff, medium plasticity, saturated.	0.5	
								0.2	
			DP	100				0.3	
	380							0.2	
60								0.2	
								0.0	
			DP	100				0.0	
								0.0	
	375							0.0	
65								0.0	
								0.0	

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OS-APS/B/MW-028C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
– 68.0		DP	100	CL-ML	Grayish Brown, SILTY CLAY, interbedded with clayey silt, soft to stiff, medium plasticity, saturated. *(continued)*	0.0, 0.0
68.0 – 72.0	370	DP	100	ML	Brown, SILT, trace fine sand, some clay, soft, plastic, saturated.	0.0, 0.0, 0.0, 0.0
72.0 – 74.0	365	DP	13	SW	Grayish Brown, FINE TO COARSE GRAVELLY SAND, subrounded, well sorted, loose, saturated.	0.0
74.0 – 84.0	360, 355	DP, DP, DP	38, 23	GP	Grayish Brown, SANDY GRAVEL, trace silt, fine subrounded gravel, fine- to coarse-grained sand, poorly sorted, loose, saturated.	0.0, 0.0
84.0 –		DP	0		No Recovery.	

Depth marks: 70, 75, 80, 85

WATERLOO APS (Ik): 1 2 3 4 5

WELL DIAGRAM

ERM
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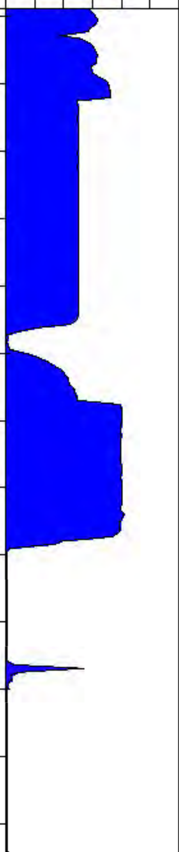
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-APS/B/MW-028C

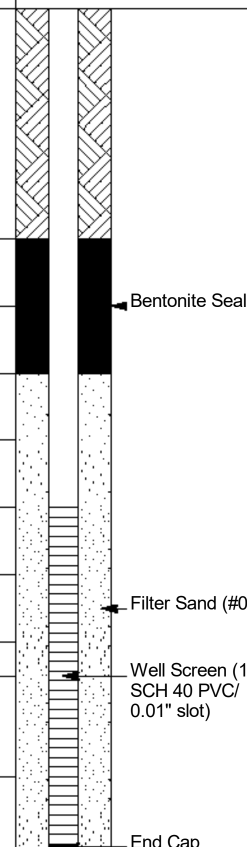
Client: Arnold & Porter
Project Number: 0378075
Project Name: Hoosick
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
90	350	DP	0		No Recovery. *(continued)*	
92.0						
	345	DP	92	SP	Gray, FINE TO COARSE GRAVELLY SAND, subrounded fine to medium gravel, shale fragments, poorly graded, medium dense, saturated.	0.0 0.0 0.0 0.0
95						
96.0						
	340	DP	54	SP	Black, MEDIUM TO COARSE SAND, with rounded coarse gravel, poorly sorted, firm, wet.	0.0 0.0 0.0
98.6						
100					Samples for description not available below drilling refusal depth.	

WATERLOO APS (Ik)



WELL DIAGRAM



Bottom of APS Boring @ 101.22 ft

Bottom of Boring @ 98.20 ft

OS-B/MW-030A&C

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5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Not Applicable Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Cascade
DATE B COMPLETED: 11/15/2016
DATE MW COMPLETED: 11/22/2016
GROUND ELEVATION: 451.90 feet amsl
NOTES:

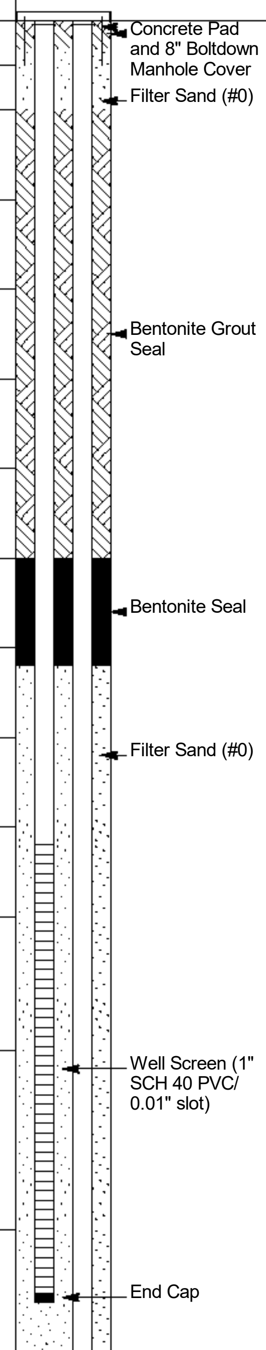
DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 109.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 451.6 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Asphalt; USCS Low Plasticity Silty Clay; USCS Silty Sand; USCS Poorly-graded Gravel; USCS Poorly-graded Gravelly Sand; USCS Poorly-graded Sandy Gravel

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–1.1			HA	100		ASPHALT.	0.0, 0.0
1.1–2.5	450.0		HA	100	CL-ML	Light Brown, CLAYEY SILT, road base material, low plasticity, moist.	0.0
2.5–5.0	447.5		HA	100	SM	Tan, FINE TO MEDIUM SILTY SAND, and subangular and subrounded fine gravel, friable, damp.	0.0, 0.0, 0.0
5.0–6.0			DP	48	GP	Brown, COARSE GRAVEL, and rounded fine sand and silt.	0.2
6.0–12.0	445.0, 442.5, 440.0		DP (5.0–10.0: 48; 10.0–15.0: 60)		SP	Medium Brown, MEDIUM SAND, and rounded medium to coarse gravel, lithic clasts, abundant quartz, friable, dry to damp.	0.1, 0.1, 0.2, 0.2, 0.3
12.0–13.5			DP	60	GP	VERY COARSE GRAVEL, and medium sand, phyllite and quartz clasts, intermittent mottling, friable, damp.	0.1
13.5–13.7			DP	60	GP	VERY COARSE GRAVEL, and very coarse sand, lithic sand, friable, saturated.	
13.7–15.0	437.5		DP	60	CL	Tan To Brown, CLAY, high plasticity, saturated.	0.0

WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-030A&C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0									Filter Sand (#0)
	435.0								
17.5			DP	0			No Recovery.		
	432.5								
20.0							20.0		
					CL		Light Brown To Gray, CLAY, transitional oxide - gley, high plasticity, saturated.	0.1	
							21.0	0.3	
	430.0								
22.5			DP	90				0.2	
								0.3	
	427.5							0.2	
25.0								0.2	
	425.0				CL		Medium Gray, CLAY, little silt, gleyed, intermittent gray tan redox zones, high plasticity, saturated.	0.2	
27.5			DP	100				0.1	
								0.1	
	422.5							0.0	
30.0								0.2	
	420.0							0.2	

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OS-B/MW-030A&C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5			DP	100	CL		Medium Gray, CLAY, little silt, gleyed, intermittent gray tan redox zones, high plasticity, saturated. *(continued)*	0.0	
								0.0	
	417.5							0.1	
35.0			DP	100	CL-ML		35.0	0.2	
								0.1	
	415.0							0.1	
37.5								0.2	
	412.5							0.2	
40.0			DP	100			Gray, SILTY CLAY, soft to medium stiff, medium plasticity, saturated.	0.2	
	410.0							0.1	
42.5								0.1	
								0.1	
	407.5							0.2	
45.0			DP	100				0.1	
	405.0							0.2	
47.5								0.2	
								0.0	

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OS-B/MW-030A&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	402.5							0.1	
50.0								0.1	Bentonite Seal
	400.0				CL-ML		Gray, SILTY CLAY, soft to medium stiff, medium plasticity, saturated. *(continued)*	0.3	
52.5			DP	100				0.1	
						53.5		0.2	
	397.5							0.4	
55.0								0.3	
	395.0							0.4	
57.5			DP	100				0.5	
					CL-ML		Dark Gray, CLAYEY SILT, dark gray to black, fine-grained sand lens from 57.4 to 58 feet bgs, firm, saturated.	0.2	
	392.5							0.4	
60.0								0.1	
	390.0							0.1	
62.5			DP	100		63.0		0.2	
					SP		Dark Gray To Gray, VERY FINE SAND, some clayey silt, lithic sand, low plasticity, saturated.	0.2	
	387.5					64.6		0.2	
65.0					CL-ML		Dark Gray, SILTY CLAY, trace very fine sand, variable clay to silt ratio, stiff, low to high plasticity, saturated.	0.5	

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OS-B/MW-030A&C

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	385.0							0.6	
67.5			DP	100				0.4	
								0.5	
	382.5							0.6	
70.0					CL-ML		Dark Gray, SILTY CLAY, trace very fine sand, variable clay to silt ratio, stiff, low to high plasticity, saturated. *(continued)*	0.3	
	380.0							0.3	
72.5			DP	98				0.3	
								0.3	
	377.5					74.4		0.3	
75.0								0.5	
	375.0							0.4	
77.5			DP	100	SM		Dark Gray, SANDY SILT, some clay, variable clay content, stiff, low plasticity, saturated.	0.3	
								0.4	
	372.5							0.4	
80.0						80.4		0.2	
	370.0				SM		Dark Gray, VERY FINE SAND, and sandy silt, trace clay, loose, low plasticity, saturated.	0.3	
82.5			DP	100	GP	82.3	Dark Gray, FINE GRAVEL, with sand and silt, firm, low plasticity, saturated.	0.3	

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OS-B/MW-030A&C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

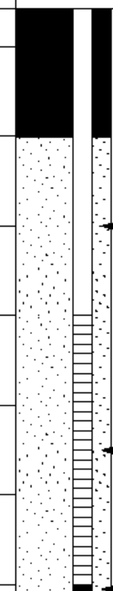
DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
to 84.6					GP	84.6	Dark Gray, FINE GRAVEL, with sand and silt, firm, low plasticity, saturated. *(continued)*
84.6–93.9			DP	57	GP	93.9	Dark Gray, FINE TO COARSE GRAVEL, with subrounded medium to coarse sand, matrix of sand, silt and clay, lithic clasts of phyllite and quartz, loose, saturated.
93.9–94.8			DP	80	GP-GC	94.8	GRAVEL, SILT, CLAY, subrounded dense, saturated.
94.8–96.0					GP-GC	96.0	GRAVEL, with subrounded silt and clay, mixed lithic gravel, saturated.
96.0–97.5			DP	36	CL	97.5	CLAY, with fine to medium gravel, interbedded, saturated.
97.5–99.0					GP	99.0	MEDIUM TO COARSE GRAVEL, subrounded phyllite and limestone fragments, loose, saturated.
99.0–100.0					CL-ML	100.0	CLAY AND SILT, with subrounded medium gravel, firm, wet.
below 100.0							Sample liners compromised during drilling. Mudstone rock fragments recovered from base.

Depth marks: 85.0, 87.5, 90.0, 92.5, 95.0, 97.5, 100.0
Elevation marks: 367.5, 365.0, 362.5, 360.0, 357.5, 355.0, 352.5

Sample intervals: DP (57% recovery) from 85.0 to 90.0 ft; DP (80% recovery) from 90.0 to 95.0 ft; DP (36% recovery) from 95.0 to 100.0 ft.

PID (ppm)
0.3
0.4
0.4
0.5
0.5
0.4
0.4
0.5
0.5
0.6
0.6
0.4
0.6
0.6
0.6
0.6
0.4
0.2

WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-030A&C

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	350.0							0.2	
102.5			DP	50				0.2	
								0.2	
	347.5							0.2	
105.0							Sample liners compromised during drilling. Mudstone rock fragments recovered from base. *(continued)*		
	345.0								
107.5			DP	0					
	342.5						109.5		
							Bottom of Boring @ 109.50 ft		

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-030B

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

APS CONTRACTOR: Not Applicable Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Cascade
DATE B COMPLETED: 11/15/2016
DATE MW COMPLETED: 11/28/2016
GROUND ELEVATION: 451.90 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 109.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 451.4 feet amsl

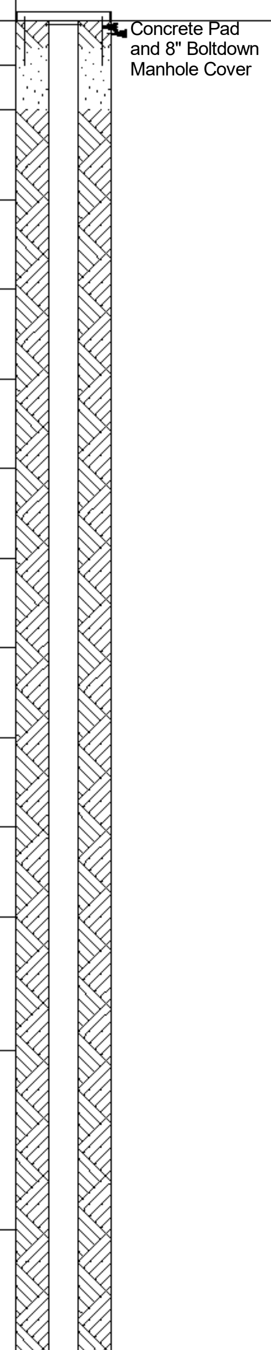
ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Asphalt
USCS Low Plasticity Silty Clay
USCS Silty Sand
USCS Poorly-graded Gravel
USCS Poorly-graded Gravelly Sand
USCS Poorly-graded Sandy Gravel

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0							
0.0–1.1			HA	100		ASPHALT.	
1.1–2.5	450.0		HA	100	CL-ML	Light Brown, CLAYEY SILT, road base material, low plasticity, moist.	
2.5–5.0	447.5		HA	100	SM	Tan, FINE TO MEDIUM SILTY SAND, and subangular and subrounded fine gravel, friable, damp.	
5.0–6.0			DP	48	GP	Brown, COARSE GRAVEL, and rounded fine sand and silt.	0.2
6.0–12.0	445.0; 442.5; 440.0		DP	48	SP	Medium Brown, MEDIUM SAND, and rounded medium to coarse gravel, lithic clasts, abundant quartz, friable, dry to damp.	0.1; 0.1; 0.2; 0.2; 0.3
12.0–13.5			DP	60	GP	VERY COARSE GRAVEL, and medium sand, phyllite and quartz clasts, intermittent mottling, friable, damp.	0.1
13.5–13.7			DP	60	GP	VERY COARSE GRAVEL, and very coarse sand, lithic sand, friable, saturated.	
13.7–15.0	437.5		DP	60	CL	Tan To Brown, CLAY, high plasticity, saturated.	0.0
15.0							

Depth scale: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0

WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	435.0		DP	0			No Recovery.		
17.5	432.5								
20.0					CL		20.0 Light Brown To Gray, CLAY, transitional oxide - gley, high plasticity, saturated.	0.1	
	430.0		DP	90			21.0	0.3	
22.5								0.2	
								0.3	
	427.5							0.2	
25.0								0.2	
	425.0				CL		Medium Gray, CLAY, little silt, gleyed, intermittent gray tan redox zones, high plasticity, saturated.	0.2	
27.5			DP	100				0.1	
								0.1	
	422.5							0.0	
30.0								0.2	
	420.0							0.2	

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-030B

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5			DP	100	CL		Medium Gray, CLAY, little silt, gleyed, intermittent gray tan redox zones, high plasticity, saturated. *(continued)*	0.0	
								0.0	
	417.5							0.1	
35.0							35.0		
								0.2	
	415.0							0.1	
37.5			DP	100				0.1	
								0.2	Bentonite Grout Seal
	412.5							0.2	
40.0								0.2	
	410.0							0.1	
42.5			DP	100	CL-ML		Gray, SILTY CLAY, soft to medium stiff, medium plasticity, saturated.	0.1	
								0.1	
	407.5							0.2	
45.0								0.1	
	405.0							0.2	
47.5			DP	100				0.2	
								0.0	

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Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	402.5				CL-ML		Gray, SILTY CLAY, soft to medium stiff, medium plasticity, saturated. *(continued)*	0.1	
50.0			DP	100				0.1	
	400.0							0.3	
52.5								0.1	
						53.5		0.2	
	397.5				CL-ML		Dark Gray, CLAYEY SILT, dark gray to black, fine-grained sand lens from 57.4 to 58 feet bgs, firm, saturated.	0.4	
55.0			DP	100				0.3	
	395.0							0.4	
57.5								0.5	
								0.2	
	392.5							0.4	
60.0			DP	100				0.1	
	390.0							0.1	
62.5						63.0		0.2	
					SP		Dark Gray To Gray, VERY FINE SAND, some clayey silt, lithic sand, low plasticity, saturated.	0.2	
	387.5					64.6		0.2	
65.0					CL-ML		Dark Gray, SILTY CLAY, trace very fine sand, variable clay to silt ratio, stiff, low to high plasticity, saturated.	0.5	

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Syracuse, NY 13214
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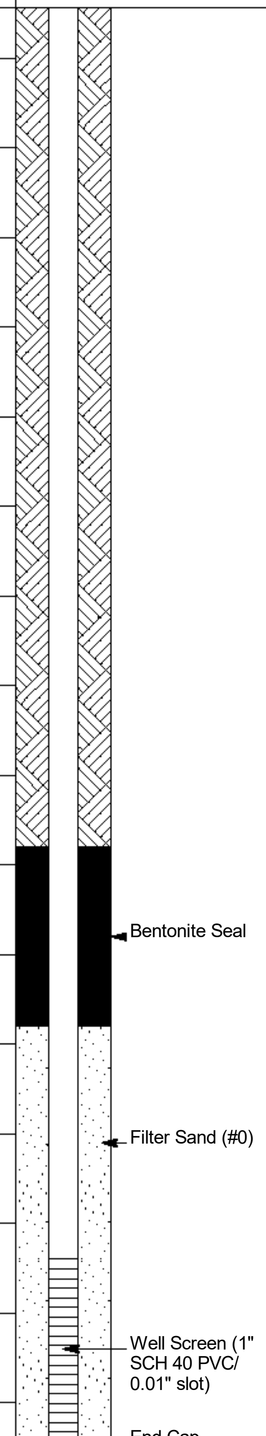
OS-B/MW-030B

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
	385.0							0.6
67.5			DP	100				0.4
								0.5
	382.5							0.6
70.0					CL-ML		Dark Gray, SILTY CLAY, trace very fine sand, variable clay to silt ratio, stiff, low to high plasticity, saturated. *(continued)*	0.3
	380.0							0.3
72.5			DP	98				0.3
								0.3
	377.5					74.4		0.3
75.0								0.5
	375.0							0.4
77.5			DP	100	SM		Dark Gray, SANDY SILT, some clay, variable clay content, stiff, low plasticity, saturated.	0.3
								0.4
	372.5							0.4
80.0						80.4		0.2
	370.0				SM		Dark Gray, VERY FINE SAND, and sandy silt, trace clay, loose, low plasticity, saturated.	0.3
82.5			DP	100	GP	82.3	Dark Gray, FINE GRAVEL, with sand and silt, firm, low plasticity, saturated.	0.3

WELL DIAGRAM



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5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-030B

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	367.5				GP	84.6	Dark Gray, FINE GRAVEL, with sand and silt, firm, low plasticity, saturated. *(continued)*	0.3, 0.4	
85.0, 87.5, 90.0, 92.5	365.0, 362.5, 360.0		DP	57	GP	93.9	Dark Gray, FINE TO COARSE GRAVEL, with subrounded medium to coarse sand, matrix of sand, silt and clay, lithic clasts of phyllite and quartz, loose, saturated.	0.4, 0.5, 0.5, 0.4, 0.4	
			DP	80				0.5, 0.5, 0.6, 0.6	
	357.5				GP-GC	94.8	GRAVEL, SILT, CLAY, subrounded dense, saturated.	0.4	
95.0					GP-GC	96.0	GRAVEL, with subrounded silt and clay, mixed lithic gravel, saturated.	0.6	
97.5	355.0		DP	36	CL	97.5	CLAY, with fine to medium gravel, interbedded, saturated.	0.6, 0.6	
					GP	99.0	MEDIUM TO COARSE GRAVEL, subrounded phyllite and limestone fragments, loose, saturated.	0.6	
100.0	352.5				CL-ML	100.0	CLAY AND SILT, with subrounded medium gravel, firm, wet.	0.4	
							Sample liners compromised during drilling. Mudstone rock fragments recovered from base.	0.2	

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OS-B/MW-030B

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	350.0							0.2	
102.5			DP	50				0.2	
								0.2	
	347.5							0.2	
105.0							Sample liners compromised during drilling. Mudstone rock fragments recovered from base. *(continued)*		
	345.0								
107.5			DP	0					
	342.5						109.5		

Bottom of Boring @ 109.50 ft

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-030D

Client: Arnold & Porter | **Project Name:** Hoosick
Project Number: 0378075 | **Project Location:** Hoosick, New York

APS CONTRACTOR: Not Applicable Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Cascade
DATE B COMPLETED: 11/15/2016
DATE MW COMPLETED: 11/17/2016
GROUND ELEVATION: 452.00 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 109.5 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ H. Usle
CHECKED BY: J. Reynolds
TOC ELEVATION: 451.6 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Asphalt; USCS Low Plasticity Silty Clay; USCS Silty Sand; USCS Poorly-graded Gravel; USCS Poorly-graded Gravelly Sand; USCS Poorly-graded Sandy Gravel

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–1.1			HA	100		ASPHALT.	
1.1–2.5	450.0		HA	100	CL-ML	Light Brown, CLAYEY SILT, road base material, low plasticity, moist.	
2.5–5.0	447.5		HA	100	SM	Tan, FINE TO MEDIUM SILTY SAND, and subangular and subrounded fine gravel, friable, damp.	
5.0–6.0			DP	48	GP	Brown, COARSE GRAVEL, and rounded fine sand and silt.	0.2
6.0–12.0	445.0, 442.5, 440.0		DP	48	SP	Medium Brown, MEDIUM SAND, and rounded medium to coarse gravel, lithic clasts, abundant quartz, friable, dry to damp.	0.1, 0.1, 0.2, 0.2, 0.3
12.0–13.5			DP	60	GP	VERY COARSE GRAVEL, and medium sand, phyllite and quartz clasts, intermittent mottling, friable, damp.	0.1
13.5–13.7			DP	60	GP	VERY COARSE GRAVEL, and very coarse sand, lithic sand, friable, saturated.	
13.7–15.0	437.5		DP	60	CL	Tan To Brown, CLAY, high plasticity, saturated.	0.0

Depth marks: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0

WELL DIAGRAM
Concrete Pad and 8" Boltdown Manhole Cover
Filter Sand (#0)

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-030D

Client: Arnold & Porter

Project Name: Hoosick

Project Number: 0378075

Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0									
17.5	435.0, 432.5		DP	0			No Recovery.		
20.0					CL		20.0 Light Brown To Gray, CLAY, transitional oxide - gley, high plasticity, saturated.	0.1	
22.5	430.0		DP	90			21.0	0.3, 0.2, 0.3, 0.2	
25.0	427.5								
27.5	425.0, 422.5		DP	100	CL		Medium Gray, CLAY, little silt, gleyed, intermittent gray tan redox zones, high plasticity, saturated.	0.2, 0.2, 0.1, 0.1, 0.0	
30.0	420.0							0.2, 0.2	

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Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter
Project Number: 0378075
Project Name: Hoosick
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
32.5			DP	100	CL		Medium Gray, CLAY, little silt, gleyed, intermittent gray tan redox zones, high plasticity, saturated. *(continued)*	0.0	
								0.0	
	417.5							0.1	
35.0			DP	100	CL-ML		35.0 Gray, SILTY CLAY, soft to medium stiff, medium plasticity, saturated.	0.2	
								0.1	
37.5	415.0							0.1	
								0.2	
	412.5							0.2	
40.0			DP	100				0.2	
								0.1	
42.5	410.0							0.1	
								0.1	
	407.5							0.2	
45.0			DP	100				0.1	
								0.2	Bentonite Grout Seal
47.5	405.0							0.2	
								0.0	

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
	402.5							0.1	
50.0								0.1	
					CL-ML		Gray, SILTY CLAY, soft to medium stiff, medium plasticity, saturated. *(continued)*	0.3	
	400.0								
52.5			DP	100				0.1	
						53.5		0.2	
	397.5							0.4	
55.0								0.3	
								0.4	
	395.0								
57.5			DP	100				0.5	
					CL-ML		Dark Gray, CLAYEY SILT, dark gray to black, fine-grained sand lens from 57.4 to 58 feet bgs, firm, saturated.	0.2	
	392.5							0.4	
60.0								0.1	
								0.1	
	390.0								
62.5			DP	100				0.2	
						63.0			
					SP		Dark Gray To Gray, VERY FINE SAND, some clayey silt, lithic sand, low plasticity, saturated.	0.2	
	387.5					64.6		0.2	
65.0									
					CL-ML		Dark Gray, SILTY CLAY, trace very fine sand, variable clay to silt ratio, stiff, low to high plasticity, saturated.	0.5	

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
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OS-B/MW-030D

Client: Arnold & Porter | **Project Name:** Hoosick

Project Number: 0378075 | **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)
	385.0
67.5	
	382.5
70.0	
	380.0
72.5	
	377.5
75.0	
	375.0
77.5	
	372.5
80.0	
	370.0
82.5	

WATERLOO APS (lk): 1 2 3 4 5

SAMPLE TYPE	RECOVERY %
DP	100
DP	98
DP	100
DP	100

U.S.C.S.	Depth (ft)	MATERIAL DESCRIPTION
CL-ML	74.4	Dark Gray, SILTY CLAY, trace very fine sand, variable clay to silt ratio, stiff, low to high plasticity, saturated. *(continued)*
SM	80.4	Dark Gray, SANDY SILT, some clay, variable clay content, stiff, low plasticity, saturated.
SM	82.3	Dark Gray, VERY FINE SAND, and sandy silt, trace clay, loose, low plasticity, saturated.
GP		Dark Gray, FINE GRAVEL, with sand and silt, firm, low plasticity, saturated.

PID (ppm)
0.6
0.4
0.5
0.6
0.3
0.3
0.3
0.3
0.3
0.5
0.4
0.3
0.4
0.4
0.2
0.3
0.3

WELL DIAGRAM

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	Bottom depth (ft)
	367.5			GP	Dark Gray, FINE GRAVEL, with sand and silt, firm, low plasticity, saturated. *(continued)*	84.6
85.0 / 87.5 / 90.0 / 92.5	365.0 / 362.5 / 360.0	DP / DP	57 / 80	GP	Dark Gray, FINE TO COARSE GRAVEL, with subrounded medium to coarse sand, matrix of sand, silt and clay, lithic clasts of phyllite and quartz, loose, saturated.	93.9
	357.5	DP	80	GP-GC	GRAVEL, SILT, CLAY, subrounded dense, saturated.	94.8
95.0		DP	36	GP-GC	GRAVEL, with subrounded silt and clay, mixed lithic gravel, saturated.	96.0
	355.0	DP	36	CL	CLAY, with fine to medium gravel, interbedded, saturated.	97.5
97.5		DP	36	GP	MEDIUM TO COARSE GRAVEL, subrounded phyllite and limestone fragments, loose, saturated.	99.0
	352.5	DP	36	CL-ML	CLAY AND SILT, with subrounded medium gravel, firm, wet.	100.0
100.0					Sample liners compromised during drilling. Mudstone rock fragments recovered from base.	

WATERLOO APS (Ik): 1 2 3 4 5

PID (ppm), top to bottom: 0.3, 0.4, 0.4, 0.5, 0.5, 0.4, 0.4, 0.5, 0.5, 0.6, 0.6, 0.4, 0.6, 0.6, 0.6, 0.6, 0.4, 0.2

WELL DIAGRAM: Bentonite Seal

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

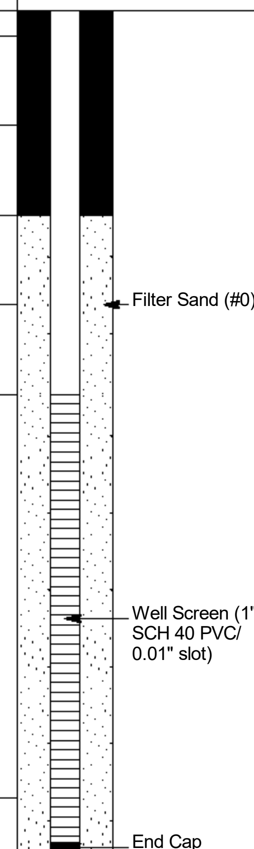
OS-B/MW-030D

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
	350.0							0.2
102.5			DP	50				0.2
								0.2
	347.5							0.2
105.0							Sample liners compromised during drilling. Mudstone rock fragments recovered from base. *(continued)*	
	345.0							
107.5			DP	0				
	342.5						109.5	

Bottom of Boring @ 109.50 ft

WELL DIAGRAM



ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

OS-B/MW-031A

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Not Applicable Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Cascade
DATE B COMPLETED: 11/29/2016
DATE MW COMPLETED: 11/30/2016
GROUND ELEVATION: 427.80 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 25.2 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ M. Fox
CHECKED BY: H. Usle
TOC ELEVATION: 427.4 feet amsl

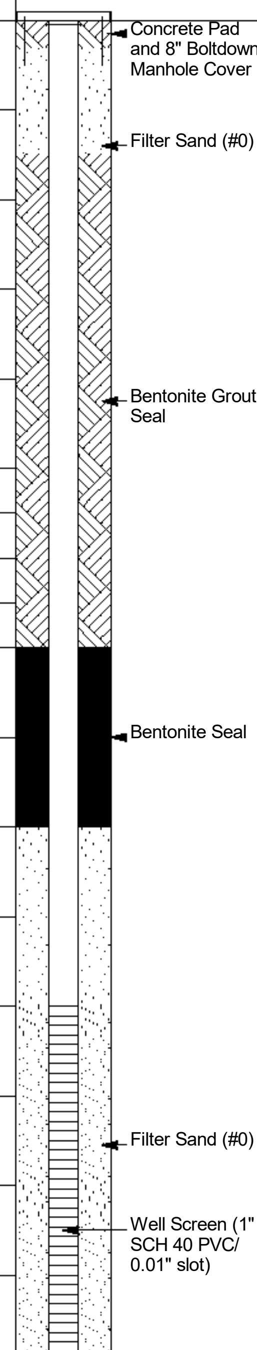
ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
Ik = Index of Hydraulic Conductivity
amsl = above mean sea level
bgs = below ground surface
PID = Photoionization Detector
ppm = parts per million
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Asphalt
USCS Poorly-graded Gravelly Sand
USCS Silty Sand
USCS Sandy Silt
USCS Silt
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0–1.0	427.5		HA	100		ASPHALT.	
1.0–5.5	425.0		HA	100	SP	Brown To Tan, FINE SAND, little silt, small to medium rounded gravel, cobbles at 5 feet bgs, loose, moist.	2.3, 11.8, 1.1, 0.5, 0.5
5.5–6.0	422.5		HA	100	SM	FINE SAND TO SILT, no cobbles, loose, moist.	0.7
6.0–8.0	420.0		HA	100	ML	SILT TO SAND, low plasticity, moist.	0.5, 0.2, 0.3
8.0–8.5			DP	75	SM	SILTY FINE SAND, some rounded gravel, medium plasticity, moist.	0.5
8.5–9.5			DP	75	ML	SILT, stiff, low plasticity, moist.	
9.5–15.0	417.5, 415.0		DP	70	SP	FINE TO COARSE SAND, with rounded fine to medium gravel, loose, moist to wet.	0.4, 0.4, 0.4, 0.2, 0.4, 0.4

Depth marks: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5, 15.0

WELL DIAGRAM



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OS-B/MW-031A

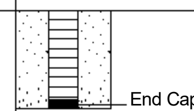
Client: Arnold & Porter **Project Name:** Hoosick

Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
15.0	412.5				SP		15.5	
					CL		CLAY, saturated, mottling. 16.7	0.6
17.5	410.0		DP	60				0.4
								0.2
					CL		CLAY, firm, saturated.	0.4
20.0	407.5							0.2
							22.0	0.2
22.5	405.0		DP	100	SM		SILT AND SAND, well sorted, plastic, saturated. 23.1	0.3
								0.2
					ML		Gray, SILT AND SAND, with rounded gravel, low plasticity, saturated. 25.0	0.1
25.0							25.2 Black, PHYLLITE.	

Bottom of Boring @ 25.20 ft

WELL DIAGRAM



OS-B/MW-031B

ERM
5788 Widewaters Parkway
Syracuse, NY 13214
Telephone: (315) 445-2554

Client: Arnold & Porter
Project Name: Hoosick
Project Number: 0378075
Project Location: Hoosick, New York

APS CONTRACTOR: Not Applicable Not Applicable
DATE APS COMPLETED: Not Applicable
B/MW CONTRACTOR: Cascade
DATE B COMPLETED: 11/29/2016
DATE MW COMPLETED: 11/30/2016
GROUND ELEVATION: 427.80 feet amsl
NOTES:

DRILLING METHOD: Hand Auger/ Direct Push
TOTAL DEPTH: 25.2 feet bgs
DIAMETER: 1.25-3.25 inches
LOGGED BY: C. Payne/ M. Fox
CHECKED BY: H. Usle
TOC ELEVATION: 427.5 feet amsl

ACRONYM LEGEND
APS = Waterloo Advanced Profiling System
MW = Monitoring Well
B = Soil Boring
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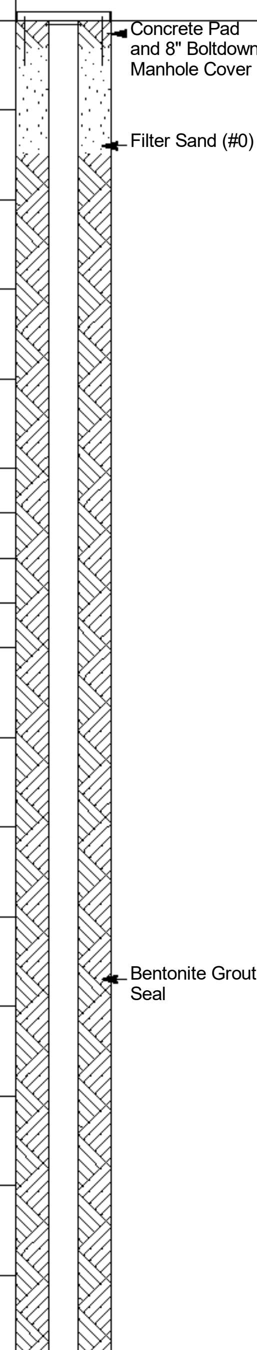
HA = Hand Auger
DP = Direct Push

GRAPHIC LOG LEGEND
Asphalt
USCS Poorly-graded Gravelly Sand
USCS Silty Sand
USCS Sandy Silt
USCS Silt
USCS Low Plasticity Clay

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (Ik) 1 2 3 4 5	SAMPLE TYPE	RECOVERY %	U.S.C.S.	MATERIAL DESCRIPTION	PID (ppm)
0.0	427.5		HA	100		ASPHALT. (1.0)	
					SP	Brown To Tan, FINE SAND, little silt, small to medium rounded gravel, cobbles at 5 feet bgs, loose, moist. (5.5)	2.3, 11.8, 1.1, 0.5, 0.5
2.5	425.0						
5.0	422.5						
					SM	FINE SAND TO SILT, no cobbles, loose, moist. (6.0)	0.7
					ML	SILT TO SAND, low plasticity, moist. (8.0)	0.5, 0.2, 0.3
7.5	420.0						
			DP	75	SM	SILTY FINE SAND, some rounded gravel, medium plasticity, moist. (8.5)	0.5
					ML	SILT, stiff, low plasticity, moist. (9.5)	0.4
10.0	417.5		DP	70	SP	FINE TO COARSE SAND, with rounded fine to medium gravel, loose, moist to wet.	0.4, 0.4, 0.2, 0.4, 0.4
12.5	415.0						
15.0							

WELL DIAGRAM



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Client: Arnold & Porter **Project Name:** Hoosick
Project Number: 0378075 **Project Location:** Hoosick, New York

DEPTH (ft)	ELEVATION (feet amsl)	WATERLOO APS (lk)	SAMPLE TYPE	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
15.0	412.5				SP		15.5		
					CL		CLAY, saturated, mottling. 16.7	0.6	
17.5	410.0		DP	60				0.4	
								0.2	
					CL		CLAY, firm, saturated.	0.4	
20.0	407.5							0.2	Bentonite Seal
							22.0	0.2	
22.5	405.0		DP	100	SM		SILT AND SAND, well sorted, plastic, saturated. 23.1	0.3	
								0.2	Filter Sand (#0) Well Screen (1" SCH 40 PVC/ 0.01" slot)
					ML		Gray, SILT AND SAND, with rounded gravel, low plasticity, saturated. 25.0	0.1	
25.0							25.2 Black, PHYLLITE.		End Cap

Bottom of Boring @ 25.20 ft

Appendix C
SC Soil Vapor Point Logs

ERM

5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

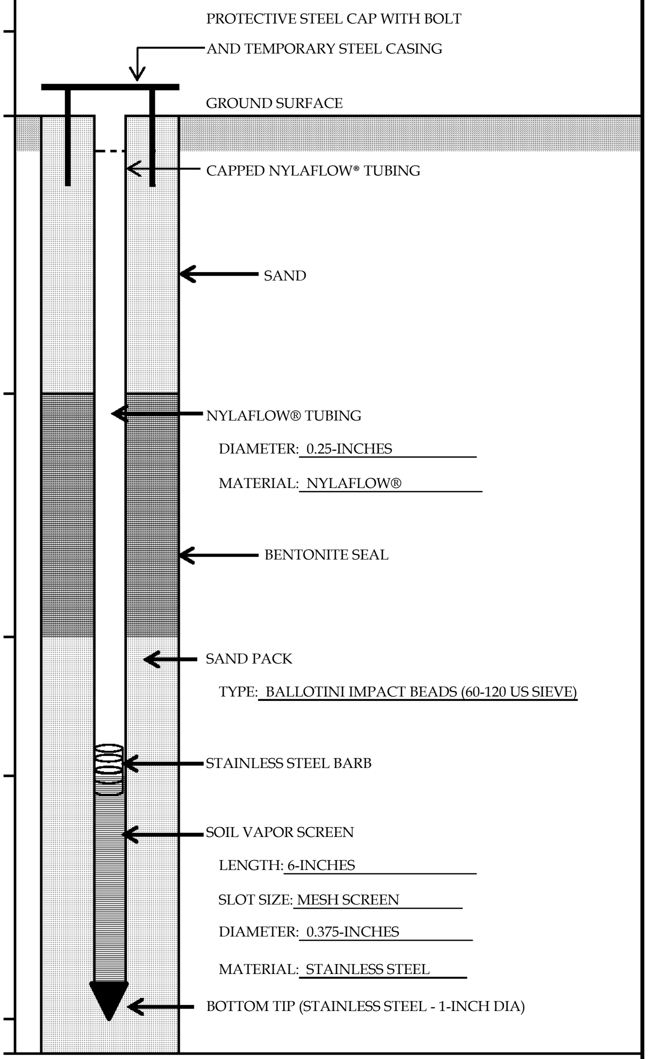
SOIL VAPOR NUMBER: **SV-01**

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	Project No.	* Site Elevation Datum
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	W. Nielson	428.20
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/5/2016	J. Allen	North Side of John Street Site

Generalized Soil Description	**PID (ppm)	***Depth
Soil descriptions from soil boring log JS-B-006.		
(0-4') Dark Brown, FINE TO COARSE SAND, some subangular gravel, trace cobbles, brick fragments at 4 feet bgs, black fine- to medium-grained sand at 4.5 feet bgs, loose, dry to moist.	0.1 (0-1')	
		1.8
	0.1 (1-3')	
		2.8
		3.4
	0.3 (3-4')	4.0

CONSTRUCTION DETAILS



BOTTOM OF BOREHOLE

REMARKS Not to Scale

* Elevation (feet) above mean sea level unless noted ** ppm = parts per million *** Depth in feet below grade

ERM

5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

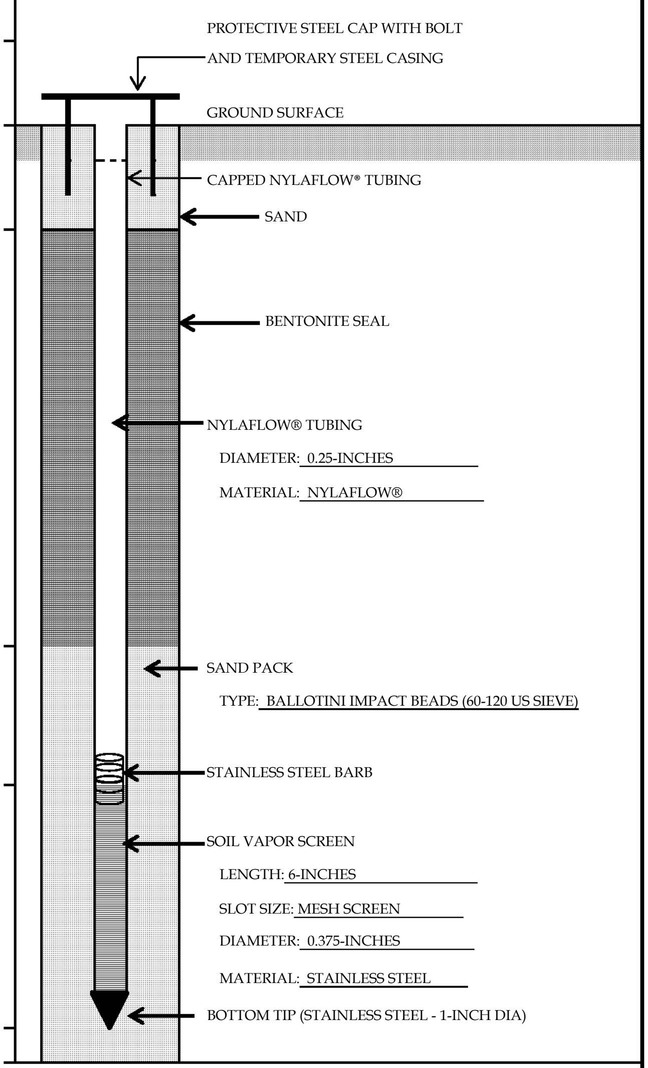
SOIL VAPOR NUMBER: **SV-02**

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	*Project No.*	** Site Elevation Datum*
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	W. Nielson	427.70
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/5/2016; 14:45	J. Allen	North Corner of John Street Site

Generalized Soil Description	**PID (ppm)	***Depth
(0-1') Gray, GRAVEL, water at 0.5 ft bgs. (1-2') Brown, FINE TO COARSE SAND AND GRAVEL, brick fragments, trace silt, saturated. (2-3.8') Brown, FINE TO MEDIUM SAND AND GRAVEL, little silt, saturated.		0.5
	0.0 (0-2')	
		2.6
	0.0 (2-4')	3.2
		3.8

CONSTRUCTION DETAILS



BOTTOM OF BOREHOLE

REMARKS Not to Scale

* Elevation (feet) above mean sea level unless noted ** ppm = parts per million *** Depth in feet below grade

ERM

5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

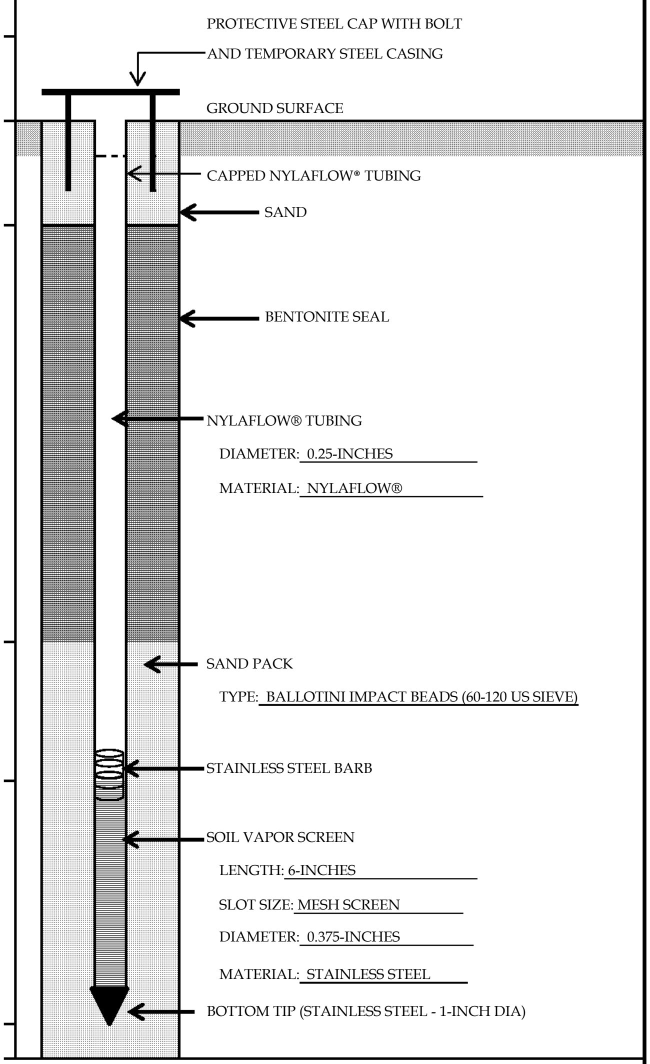
SOIL VAPOR NUMBER: **SV-03**

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	Project No.	* Site Elevation Datum
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	W. Nielson	428.10
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/5/2016; 15:15	J. Allen	Northwest Corner of John Street Site

Generalized Soil Description	**PID (ppm)	***Depth
(0-0.8') Gray, GRAVEL, some clay, moist to wet.		0.5
(0.8-2') Dark Brown, FINE TO MEDIUM SAND AND GRAVEL, little clay, wet.	0.0 (0-2')	
(2-4') Dark Brown, FINE TO MEDIUM SAND AND GRAVEL, brick fragments, wet to moist.		2.8
	0.0 (2-4')	3.4
		4.0

CONSTRUCTION DETAILS



BOTTOM OF BOREHOLE

REMARKS Not to Scale

* Elevation (feet) above mean sea level unless noted ** ppm = parts per million *** Depth in feet below grade

ERM

5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

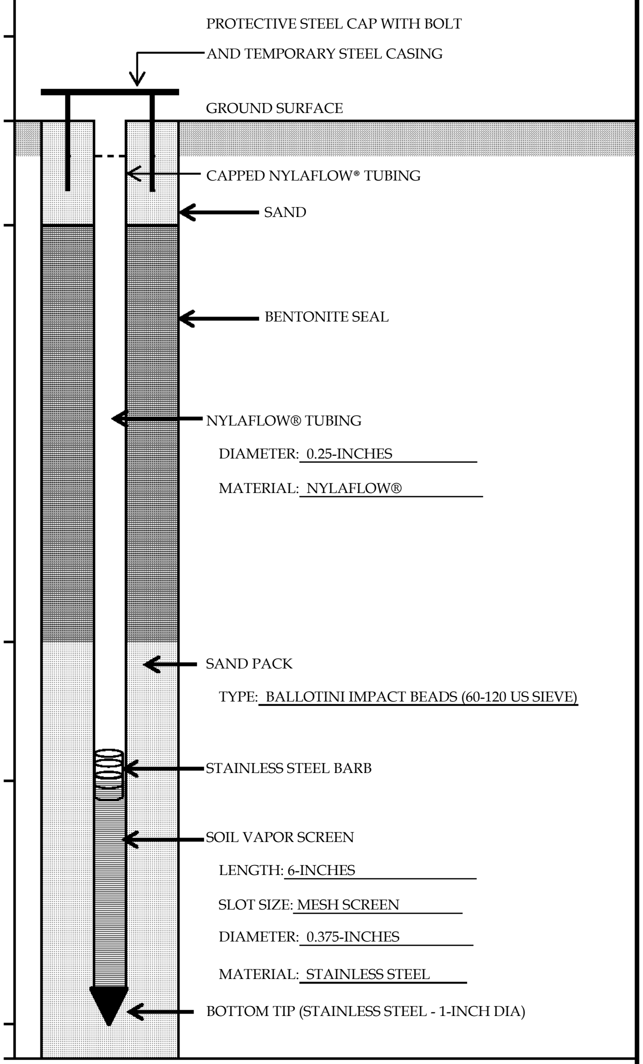
SOIL VAPOR NUMBER: **SV-04**

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	*Project No.*	** Site Elevation Datum*
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	W. Nielson	428.60
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/5/2016; 12:45	H. Usle	Western Property Boundary

Generalized Soil Description	**PID (ppm)	***Depth
(0-0.5') Gray, GRAVEL.		
(0.5-4') SAND AND GRAVEL, cobbles, trace clay, loose, no odor, dry to moist.		0.5
	0.0 (0-2')	
		3.0
		3.5
		4.0

CONSTRUCTION DETAILS



BOTTOM OF BOREHOLE

REMARKS Construction log generated electronically in field. Original location encountered rock debris at 2.5 ft bgl. Alternate location selected adjacent to original point and cleared to 4 ft bgl for SV-04 installation.

Water present in bottom of boring at SV-04 installation. Not to Scale.

* Elevation (feet) above mean sea level unless noted ** ppm = parts per million *** Depth in feet below grade

ERM

SOIL VAPOR NUMBER: **SV-05**

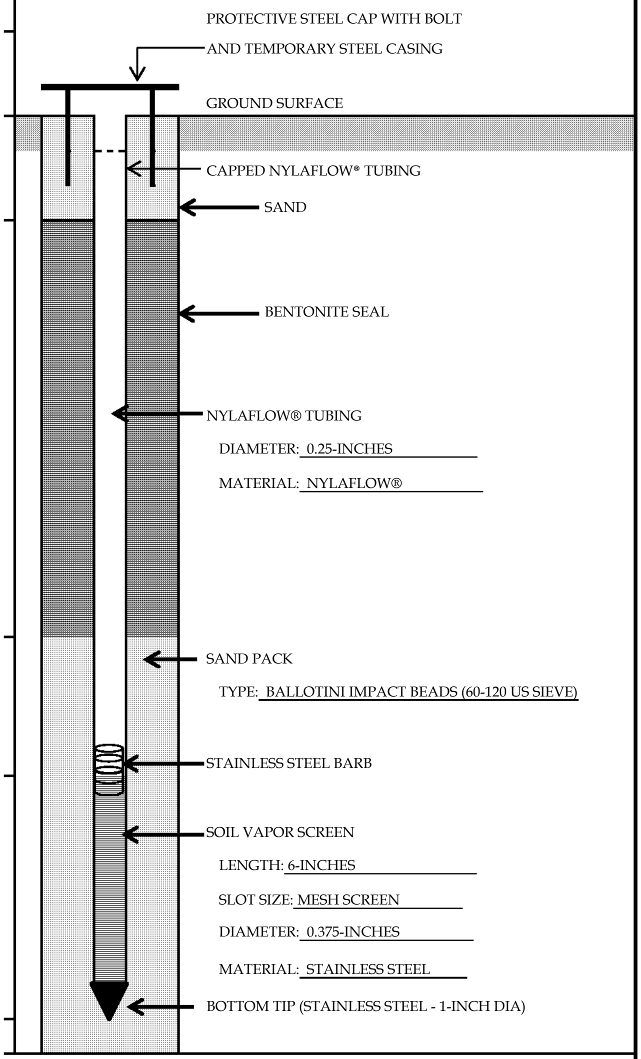
5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	*Project No.*	** Site Elevation Datum*
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	W. Nielson	429.20
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/05/2016; 12:20	H. Usle	Western Property Boundary

Generalized Soil Description	**PID (ppm)	***Depth
(0-0.5') Gray, GRAVEL.		
(0.5'-2') Gray, loose sand and gravel, cobbles, trace clay, dry to moist, no odor.		0.5
(2'-4') Brown, loose, c. grained sand, some rounded gravel, dry to moist, no odor.	0.0 (0-2')	
		3.0
	0.1 (2-4')	3.5
		4.0

CONSTRUCTION DETAILS



REMARKS Construction log generated electronically in field. Not to Scale.

* Elevation (feet) above mean sea level unless noted ** ppm = parts per million *** Depth in feet below grade

ERM

5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

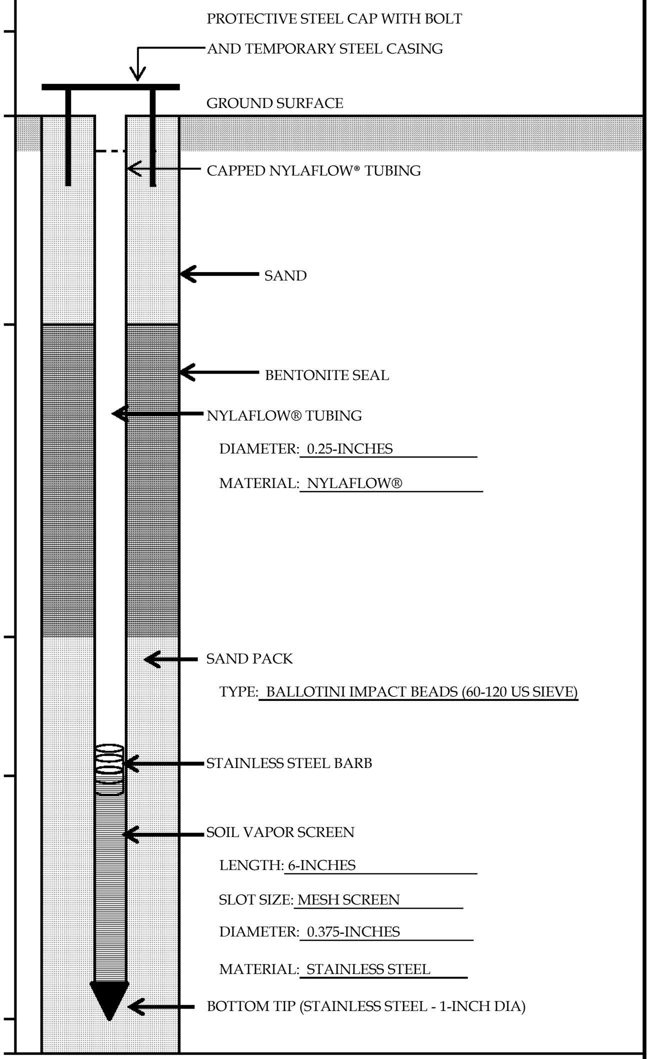
SOIL VAPOR NUMBER: **SV-06**

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	*Project No.*	** Site Elevation Datum*
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	M. Carnie	430.40
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/1/2016	R. Holt	West Side of John Street Site - Gravel area

CONSTRUCTION DETAILS

Generalized Soil Description	**PID (ppm)	***Depth
(0-0.5') Brown To Light Gray, FINE TO COARSE GRAVEL, grass. (0.5-4') Dark Brown To Black, FINE TO COARSE SAND, and subangular gravel, brick fragments, dry.	0.7 1.0 ft	1.0
	0.5 2.0 ft	
		3.0
	0.3 3.0 ft	3.5
	0.2 4.0 ft	4.0



BOTTOM OF BOREHOLE

REMARKS Not to Scale

* Elevation (feet) above mean sea level unless noted ** ppm = parts per million *** Depth in feet below grade

g:geoforms\Final Soil Vapor Logs.xls
rev. 10/99

ERM

5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

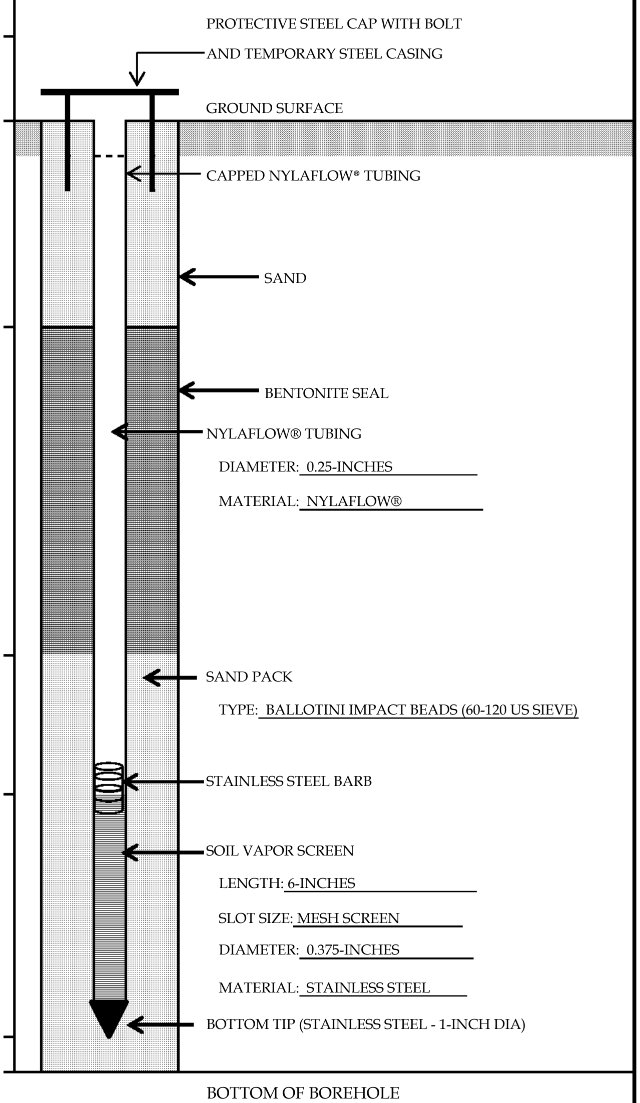
SOIL VAPOR NUMBER: SV-07

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	*Project No.*	** Site Elevation Datum*
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	M. Carnie	430.40
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/1/2016	R. Holt	Southwest Side of John Street Site-Gravel area

CONSTRUCTION DETAILS

Generalized Soil Description	**PID (ppm)	***Depth
(0.25-0.75') Dark Brown, FINE TO COARSE SAND WITH GRAVEL, subangular, loose, slightly moist. (0.75-3.7') Brown to Dark Brown, FINE TO MEDIUM SAND, trace coarse sand, trace angular gravel, slightly loose, moist. (3.7-4') Tan, CLAY, low plasticity, moist, mottled.	0.1 1.0 ft	1.0
	0.0 2.0 ft	
	0.0 3.0 ft	3.0
		3.5
	0.1 4.0 ft	4.0



BOTTOM OF BOREHOLE

REMARKS Not to Scale

* Elevation (feet) above mean sea level unless noted   ** ppm = parts per million   *** Depth in feet below grade

ERM

SOIL VAPOR NUMBER: **SV-08**

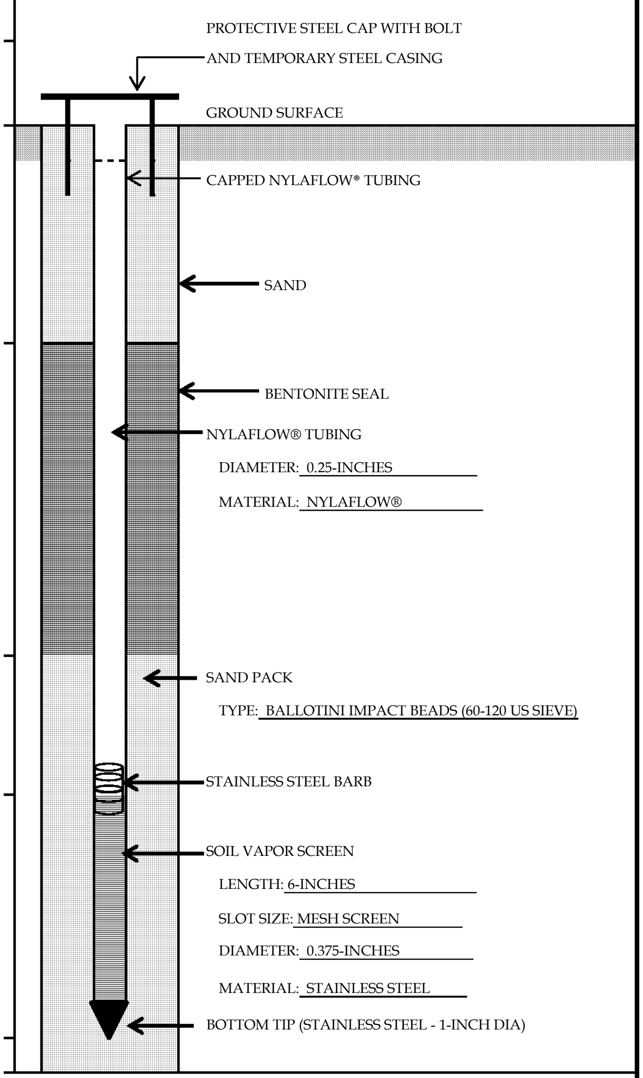
5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location	*Project No.*	** Site Elevation Datum*
A&P - Hoosick Falls, NY	**0378075**	NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company	*Foreman*	*Ground Elevation*
Parratt Wolff	J. Eaves	437.70
Installation Method	*Borehole Diameter*	*Protective Casing Construction*
Hand Auger, Post-Hole Digger, Pry Bar	4-inches	None
Date and Time of Completion	*Geologist*	*Location Description*
12/1/2016; 11:00	R. Holt	South Side of John Street Site - Grassy Area

CONSTRUCTION DETAILS

Generalized Soil Description	**PID (ppm)	***Depth
(0-1.5') Brown, SILTY FINE SAND, loose, moist. (1.5-4') Dark Brown, FINE TO MEDIUM SAND, trace coarse sand, trace subangular gravel, loose, moist.		
	0.5 1.0 ft	1.0
	0.3 2.0 ft	
	0.3 3.0 ft	3.0
	0.3 3.0 ft	3.5
	0.3 4.0 ft	4.0



BOTTOM OF BOREHOLE

REMARKS Not to Scale

* Elevation (feet) above mean sea level unless noted   ** ppm = parts per million   *** Depth in feet below grade

ERM

5788 Widewaters Parkway, Dewitt, NY 13214 (315) 445-2554

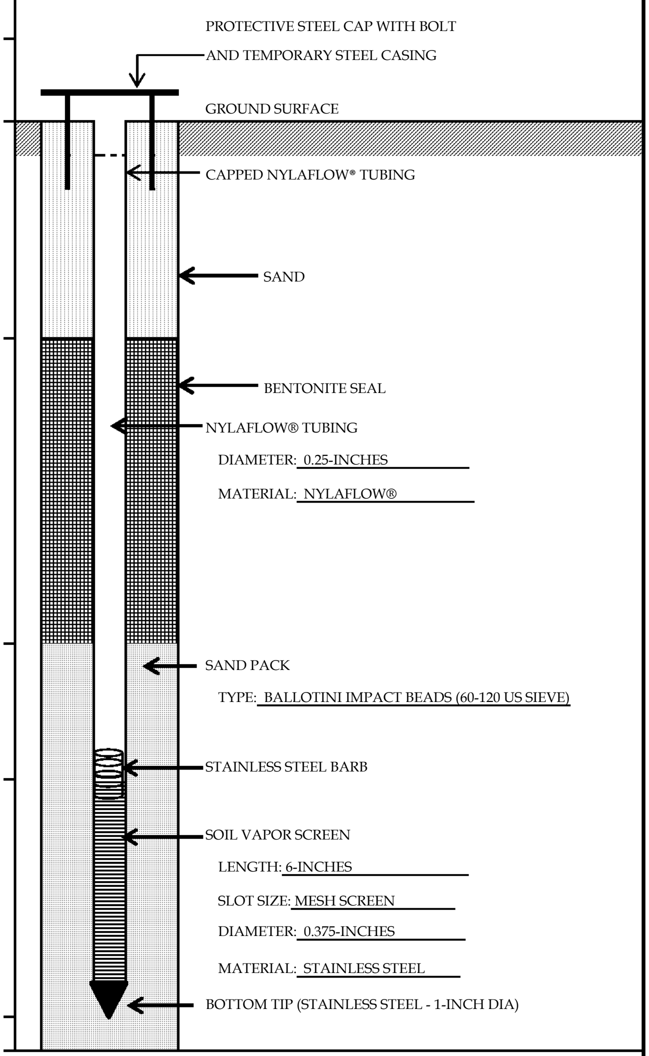
SOIL VAPOR NUMBER:
SV-09

SOIL VAPOR POINT CONSTRUCTION

Project Name & Location **A&P - Hoosick Falls, NY**	*Project No.* **0378075**	** Site Elevation Datum* NAD83 State Plane New York East FIPS 3101 (US Ft)
Drilling Company Parratt Wolff	*Foreman* M. Carnie	*Ground Elevation* 437.50
Installation Method Hand Auger, Post-Hole Digger, Pry Bar	*Borehole Diameter* 4-inches	*Protective Casing Construction* None
Date and Time of Completion 12/1/2016: 11:45	*Geologist* R. Holt	*Location Description* South Side of John Street Site

Generalized Soil Description	**PID (ppm)	***Depth
(0-2') Brown, SILTY FINE SAND, loose, moist. (2-3.5') Dark Brown, FINE TO MEDIUM SAND, trace coarse sand, trace subangular gravel, loose, moist. (3.5-4') Light Brown to Dark Brown, FINE SAND AND SILT, trace clay, medium dense, moist.	1.7 1.0 ft	1.0
	0.7 2.0 ft	
	0.2 3.0 ft	3.0
		3.5
	0.1 4.0 ft	4.0

CONSTRUCTION DETAILS



BOTTOM OF BOREHOLE

REMARKS Not to Scale

* Elevation (feet) above mean sea level unless noted ** ppm = parts per million *** Depth in feet below grade

Appendix D
SC Groundwater Sampling Records

SC Monitoring Well Gauge Data

Well Identification	Total Construction Depth (ft bgs)	Well Diameter (in)	Date of Gauging (dd/mm/yyyy)	Time of Gauging (hh:mm)	Depth to Water (ft btoc)	Total Depth (ft btoc)	Comments
JS-MW-001A	17.50	1	01/04/2017	08:00	12.90	17.10	EL
JS-MW-001B	79.50	1	01/04/2017	08:15	13.63	50.76	EL
JS-MW-001C	79.50	1	01/04/2017	08:19	13.84	79.20	EL
JS-MW-002A	9.00	1	01/04/2017	08:30	5.54	8.31	EL
JS-MW-003A	9.50	1	01/04/2017	08:50	7.27	9.00	EL
JS-MW-003B	55.00	1	01/04/2017	08:55	16.35	55.90	EL
JS-MW-003C	89.00	1	01/04/2017	09:00	16.30	88.09	EL
JS-MW-004A	10.50	1	01/04/2017	09:30	6.47	9.83	EL
JS-MW-004B	111.00	1	01/04/2017	09:35	17.46	62.79	EL
JS-MW-004C	111.00	1	01/04/2017	09:40	18.52	110.18	EL
JS-MW-005A	12.50	1	01/04/2017	09:15	7.81	11.74	EL
OS-MW-024A	6.50	1	01/04/2017	08:42	(DRY) 5.61	5.92	MF
OS-MW-024B	42.50	1	01/04/2017	08:43	20.38	38.98	MF
OS-MW-025A	17.10	1	01/04/2017	08:33	13.26	16.47	MF
OS-MW-025B	25.10	1	01/04/2017	08:31	13.29	21.67	MF
OS-MW-025C	25.10	1	01/04/2017	08:26	13.23	24.72	MF
OS-MW-026A	20.70	1	01/04/2017	07:59	13.17	20.43	MF
OS-MW-026B	42.00	1	01/04/2017	08:01	13.50	40.67	MF
OS-MW-026C	80.00	1	01/04/2017	08:03	13.61	78.32	MF
OS-MW-027A	21.00	1	01/04/2017	08:56	13.95	19.76	CP
OS-MW-027B	98.00	1	01/04/2017	09:01	15.74	88.10	CP
OS-MW-027C	100.00	1	01/04/2017	09:03	15.86	98.00	CP
OS-MW-028A	78.00	1	01/04/2017	08:02	6.53	7.42	CP
OS-MW-028B	78.00	1	01/04/2017	08:00	23.72	76.06	CP
OS-MW-028C	101.00	1	01/04/2017	07:57	23.87	100.82	CP
OS-MW-030A	16.00	1	01/04/2017	08:30	13.06	14.~~60~~63	CP
OS-MW-030B	82.40	1	01/04/2017	08:28	36.85	81.50	CP
OS-MW-030C	90.00	1	01/04/2017	08:31	37.14	89.5	CP
OS-MW-030D	110.00	1	01/04/2017	08:33	36.85	107.00	CP, WATER AROUND TOC.
OS-MW-031A	16.10	1	01/04/2017	08:13	13.01	15.27	MF
OS-MW-031B	25.20	1	01/04/2017	08:11	13.45	24.60	MF

ORIGINAL RECORDED FIELD NOTES SCANNED AND SAVED. MEASUREMENTS RECORDED HERE TRANSCRIBED FROM FIELD NOTES OF CP = CAL PAYNE, EL = ELIEL LUCERO, ZB = ZOE BRYANT, AND MF = MIKE FOX. H. USLE ASSISTED M. FOX AND L. ASSISTED Z. BRYANT.

SC Well PID Reading Forms

Monitoring Well Field Gauging Form
A&P - Hoosick Falls, New York

Well Identification	Total Construction Depth (ft bgs)	Well Diameter (in)	Date of Gauging	Time of Gauging (hh:mm)	Depth to Water (ft btoc)	Total Depth (ft btoc)	PID Readings (ppm)	Comments
JS-MW-001A	17.50	1	4-Jan-2017		12.90		1.5	
JS-MW-001B	79.50	1	4-Jan-2017		13.63		0.0	
JS-MW-001C	79.50	1	4-Jan-2017		13.84		0.3	
JS-MW-002A	9.00	1	4-Jan-2017		5.54		1.3	
JS-MW-003A	9.50	1	4-Jan-2017		7.27		0.6	
JS-MW-003B	55.00	1	4-Jan-2017		16.35		31.4	
JS-MW-003C	89.00	1	4-Jan-2017		16.30		0.4	
JS-MW-004A	10.50	1	4-Jan-2017		6.47		0.0	
JS-MW-004B	111.00	1	4-Jan-2017		17.46		0.0	
JS-MW-004C	111.00	1	4-Jan-2017		18.52		0.0	
JS-MW-005A	12.50	1	4-Jan-2017		7.81		0.0	
OS-MW-024A	6.50	1	4-Jan-2017		DRY		0.0	
OS-MW-024B	42.50	1	4-Jan-2017		20.38		0.0	
OS-MW-025A	17.10	1	4-Jan-2017		13.26		0.0	
OS-MW-025B	25.10	1	4-Jan-2017		13.29		0.0	
OS-MW-025C	25.10	1	4-Jan-2017		13.23		0.0	
OS-MW-026A	20.70	1	4-Jan-2017		13.17		0.0	
OS-MW-026B	42.00	1	4-Jan-2017		13.50		0.1	
OS-MW-026C	80.00	1	4-Jan-2017		13.61		0.0	
OS-MW-027A	21.00	1	4-Jan-2017		13.95		0.0	
OS-MW-027B	98.00	1	4-Jan-2017		15.74		0.0	
OS-MW-027C	100.00	1	4-Jan-2017		15.86		0.0	
OS-MW-028A	78.00	1	4-Jan-2017		6.53		0.0	
OS-MW-028B	78.00	1	4-Jan-2017		23.72		0.0	
OS-MW-028C	101.00	1	4-Jan-2017		23.87		0.0	
OS-MW-030A	16.00	1	4-Jan-2017		13.06		0.0	
OS-MW-030B	82.40	1	4-Jan-2017		36.85		0.0	
OS-MW-030C	90.00	1	4-Jan-2017		37.14		0.0	
OS-MW-030D	110.00	1	4-Jan-2017		36.85		0.1	
OS-MW-031A	16.10	1	4-Jan-2017		13.01		0.1	
OS-MW-031B	25.20	1	4-Jan-2017		13.45		0.0	
MW-1	UNKNOWN	2	4-Jan-2017		14.54			
MW-2	UNKNOWN	2	4-Jan-2017		11.84			
MW-3	UNKNOWN	2	4-Jan-2017		13.45			

SC Monitoring Well Sampling Low Flow Forms

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: JS-MW-001A		Area:	John Street Hoosick Falls
Date: 1/9/2017		Sampling Device:	Inertial - ~~Waterra~~ Pump Peri pump
Sampling Personnel: ZB			
Weather Conditions: clear			
Time: ~~1357~~ 1357			

Total Depth (TD)[1]: 17.10' BTOC (OBTAINED POST SAMPLING)	Screen Length:	5'	
Depth to Water (DTW): 12.98	Well Diameter:	1"	
Total Volume Purged: ~3 GAL	Casing Type:	PVC	
Purge Rate: ~100 ML/MIN			
Tubing Type: HDPE	Measuring Point:	Top of Casing	
Pump Intake (feet below MP): ~16' BTOC	Color: Clear	Odor:	None

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
1417	12.92		6.88	605	4.86	7.12	4.95	135.9	50
1425	12.97		7.48	595	4.58	6.93	4.12	140.6	50
1430	12.98		7.82	591	4.50	6.89	2.06	143.2	50
1435	12.98		8.11	594	4.89	6.87	1.91	144.4	70
1441	12.99		8.06	607	4.67	6.86	1.42	146.3	80
1446	12.99		8.07	610	4.93	6.86	1.5	147.4	100
1451	12.97		8.20	612	5.0	6.81	1.29	147.9	100
1456	12.97		8.20	614	4.84	6.87	1.21	148.8	100
1502	12.99		8.21	616	4.75	6.86	1.27	149.4	100

ZB

Sampling Time: 1503

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-001A	VOC, PFC, Metals	No	Trizma, HCl
MW-DUP-002 (1530-FALSE TIME)	TOC		HPO4, NONE
	" "	NO	"

Additional Field Measurements

YSI Model: 55MPS SN: 16A104336 / LAMOTTE 2020E

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

51
-46
5

Low-Flow Groundwater Sampling Form

DTD
~~50.46~~

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: JS-MW-001B		Area: John Street	
Date: 01/04/17		Sampling Device:	Inertial - Waterra Pump
Sampling Personnel: Eliel Lucero			
Weather Conditions: Cloudy			
Time: 1400			

Total Depth (TD)[1]: ~~79.50~~ 50.76'		Screen Length:	5 ft
Depth to Water (DTW): 13.55		Well Diameter:	1"
Total Volume Purged: 7.5 gal		Casing Type:	PVC
Purge Rate: 150 mL/min			
Tubing Type: HDPE		Measuring Point:	Top of Casing
Pump Intake (feet below MP): ~ 58.5'		Color: Clear	Odor: No odor

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1415	13.57		10.14	963	2.38	7.63	26.8	-76.8	150
1420	13.57		10.11	975	0.89	7.57	33.3	-82.9	150
1425	13.57		10.21	975	0.61	7.54	33.3	-86.8	150
1430	13.57		10.30	985	0.58	7.55	32.3	-88.5	150
1435	13.57		10.41	992	0.59	7.55	30.9	-82.1	150
1440	13.57		10.56	996	0.57	7.53	25.1	-82.9	150
1445	13.57		10.54	1004	0.53	7.52	22.4	-63.0	150
1450	13.57		10.76	1008	0.41	7.51	15.6	-64.3	150
1455	13.57		10.88	1012	0.37	7.50	10.4	-68.9	150
1500	13.57		10.88	1015	0.33	7.50	6.02	-64.2	150
1505	13.57		10.87	1016	0.37	7.47	4.67	-64.6	150
1515 Sampling									

GP
EL

Sampling Time: 1515

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-001B(01042017)	VOCs Metals PFCs TOC, pH	N	H_3PO_4, HNO_3, Trizma None, HCL

Additional Field Measurements

YSI Serial # 14F100056 LAMOTTE 2020E

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well:	JS-MW-001C	Area:	John Street Hoosick Falls
Date:	1/10/2017	Sampling Device:	~~Inertial - Waterra Pump~~ Peristaltic Pump
Sampling Personnel:	ZB		
Weather Conditions:	overcast		
Time:	0755		

Total Depth (TD)[1]:	79.20	Screen Length:	5'
Depth to Water (DTW):	14.56	Well Diameter:	1"
Total Volume Purged:	~3 GAL	Casing Type:	PVC
Purge Rate:	~100 ML/MIN		
Tubing Type:	HDPE	Measuring Point:	Top of Casing
Pump Intake (feet below MP):	77.5'	Color:	cloudy
		Odor:	No

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
0924	~~[illegible]~~ 14.62		10.49	1190	2.74	7.63	39	165.4	100
0930	14.60		10.41	1244	0.53	7.66	16.3	155.1	100
0935	14.60		10.39	1263	0.30	7.83	5.43	148.8	100
0940	14.60		10.39	1266	0.28	7.92	6.97	143.2	100
0945	14.59		10.42	1269	0.29	7.95	1.99	139.4	100
0950	14.59		10.53	1267	0.35	7.98	1.75	127.7	100
0955	14.59		10.62	1267	0.34	8.00	1.57	117.3	100
1000	14.59		10.51	1266	0.32	8.01	1.73	109.2	100
1005		started sampling							

CP
ZB

Sampling Time: 10:05

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-001C(01102017)	VOC, TOC, PFC, metals, pH	N	HCL, H3PO4, Zn2nc, HNO3, NONE

Additional Field Measurements
YSI: 556MPS, model: 10A101440
Turbidity: Lamotte 2020 PINE ENV ID: 919979

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: JS-MW-002A		Area: JOHN STREET	
Date: 01/04/2017		Sampling Device:	Inertial - Waterra Pump
Sampling Personnel: HMM / M. FOX			
Weather Conditions: ~40°F & CLOUDY			
Time: START: 1400			

Total Depth (TD)[1]: 8.31' BTOC (OBTAINED POST SAMPLING)		Screen Length: 5'	
Depth to Water (DTW): 5.48 FT BTOC		Well Diameter:	1"
Total Volume Purged: 5.5 gal		Casing Type:	PVC
Purge Rate: 200			
Tubing Type: HDPE		Measuring Point:	Top of Casing
Pump Intake (feet below MP): ~ 7.5 FT BTOC		Color: CLEARISH ORANGE	Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1405	5.55		7.59	582	2.33	6.69	58	-7.3	200
1410	5.60		7.55	545	2.40	6.70	95.8	-23.9	
1415	5.61		7.49	530	2.51	6.67	45	-29.0	
1420	5.59		7.48	528	2.55	6.67	29	-30.0	
1425	5.60		7.51	527	2.44	6.67	80.6	-29.9	
1430	5.60		7.51	526	2.28	6.67	74.3	-30.1	
1435	5.61		7.54	525	2.23	6.69	55.1	-30.8	
1440	5.61		7.56	523	2.38	6.70	37.7	-35.7	
1445	5.61		7.56	523	2.34	6.70	28.8	-37.2	
1450	5.61		7.53	521	2.37	6.70	25.0	-38.6	
1455	5.61		7.53	521	2.39	6.71	20.0	-40.3	
1500	5.61		7.51	521	2.51	6.72	18.2	-41.6	
1505	5.61		7.51	520	2.41	6.72	17.0	-41.5	
1510	5.61		7.48	518	2.39	6.72	15.7	-41.2	
1515	5.61		7.49	518	2.39	6.72	14.7	-41.5	
1520	5.60		7.51	516	2.53	6.73	11.9	-45.1	
1525	5.61		7.50	516	2.53	6.73	12.0	-45.9	
1530	5.61		7.50	515	2.57	6.73	11.30	-45.7	
MF		M. Fox 01/05/17							MF

Sampling Time: 1540

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-002A(01042017)	PFC	N	Trizma
	VOC		HCl
	Metals		H_3PO_4
	pH		Nitric
			NONE

Additional Field Measurements

YSI - 07F100306 / LAMOTTE 2020E

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: JS-MW-003A	Area: James Street
Date: 01/10/17	Sampling Device: Peristaltic Pump
Sampling Personnel: Eliel Lucero	
Weather Conditions: 15° F Cloudy	
Time: 0825	

Total Depth (TD)[1]: 9.0	Screen Length: 5 ft
Depth to Water (DTW): 7.30	Well Diameter: 1"
Total Volume Purged: 2.8 gal	Casing Type: PVC
Purge Rate: 150	
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): ~8'	Color: Clear Odor: no odor

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0830	7.39		3.70	0.326	11.71	7.31	7.74	186.6	150
0835	7.39		3.40	0.324	9.47	7.12	2.41	184.7	150
0840	7.39		3.25	0.322	9.12	7.11	1.36	187.9	150
0845	7.39		3.41	0.321	8.83	7.11	0.85	190.1	150
0850	7.39		3.45	0.320	8.69	7.11	0.41	191.6	150
0855	7.39		3.46	0.321	8.73	7.10	0.28	191.6	150
0900	7.39		3.57	0.320	8.80	7.10	0.20	191.6	150
Sample @		0915							

EP

EL

Sampling Time: 0915

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-003A (01102017)	PFCs	N	Trizma
JS-MW-003A (01102017) MS	VOCs	N	HCL
JS-MW-003A (01102017) MSD	TOC	N	H3PO4
	Metals + Hg	N	HNO3
	pH	N	None

Additional Field Measurements

Notes: YSI Serial # 14F100056 Lamotte # 8253-4616 2020we

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: JS-MW-003B	Area: John St.
Date: 01/10/17	Sampling Device: Peristaltic Pump
Sampling Personnel: Eliel Lucero	
Weather Conditions: 19°F Cloudy	
Time: 1030	

Total Depth (TD)[1]: 55.90	Screen Length: 5 ft
Depth to Water (DTW): 16.96	Well Diameter: 1"
Total Volume Purged: 2.5 gal	Casing Type: PVC
Purge Rate: 200 mL/min	
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): ~53.5	Color: Clear Odor: No odor

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1030	17.03		9.55	1.207	0.48	8.21	28.2	25.1	200
1035	17.03		9.55	1.268	0.30	7.53	9.10	-21.0	200
1040	17.03		9.18	1.276	0.42	7.49	9.29	-31.6	200
1045	17.03		9.37	1.274	0.31	7.46	11.3	-38.9	200
1050	17.03		9.42	1.272	0.27	7.46	10.09	-42.0	200
1055	17.03		9.42	1.277	0.25	7.46	8.35	-43.3	200
1100	17.03		9.40	1.280	0.27	7.44	6.58	-44.7	200
Sampled @ 1110									

CP

EL

Sampling Time: 1110

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-003B(01102017)	PFCs	N	Trizma
	VOCs	N	HCL
	TOC	N	H3PO4
	Metals + Hg	N	HNO3
	pH	N	None

Additional Field Measurements

Notes: YSI Serial #14F100056 Lamotte # 8253-4116 202008

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: JS-MW-003C	Area: on site
Date: 1/4/2017	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: Caldwell Ryan	
Weather Conditions: ~40°F, Overcast	
Time: 1355	

Total Depth (TD)[1]: 88.09' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5'
Depth to Water (DTW): 16.23	Well Diameter: 1"
Total Volume Purged: ~3gal	Casing Type: PVC
Purge Rate: ~120ML/MIN	YSI 16A101443 / LAMOTTE 20203
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~86'	Color: Grey Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1356		Initially clear	9.33	436	14.49	7.45	24.0	137.8	150
1401		Became v. Turbid	10.12	839	3.48	7.38	OR	114.6	120
1406	16.27		10.21	876	2.06	7.34	OR	80.9	120
1411	16.28	Visually Clearing	10.22	886	1.50	7.33	3370 AU	70.0	120
1416	16.27		10.26	889	1.33	7.34	1257AU	64.8	120
1421	16.26		10.31	890	1.17	7.35	789 AU	60.7	120
1426	16.26		10.24	892	0.89	7.37	634 AU	57.1	120
1431	16.24		10.23	892	0.77	7.38	11 NTU	55.6	120
1436	16.24		10.34	893	0.64	7.40	NA	52.3	120
1441	16.24		10.38	893	0.60	7.40	NA	51.2	120
1446	16.24		10.38	894	0.53	7.41	NA	49.5	120
1451	16.24		10.38	894	0.49	7.41	NA	48.3	120
1456	16.25		10.41	894	0.47	7.42	NA	47.5	

CP

Sampling Time: 1500

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-003C (01042017)	PVC, VOC, TOC, Metals, pH	N	HCl, Trizma, H_3PO_4, HNO_3

* VOC Samples collected ~40 min following the rest of the VOC's due to troubleshooting VOC methods

Additional Field Measurements

OR = Over range
NA = Turbidity meter reading < 1 NTU

DTW @ start of pumping not available due to tape sticking to casing.

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: JS-MW-004A	Area: JOHN ST
Date: 1-10-17	Sampling Device: Peristaltic Pump
Sampling Personnel: JTS	
Weather Conditions: SUNNY, 15°	
Time: 0850	

Total Depth (TD)[1]: 9.83	Screen Length: 5'
Depth to Water (DTW): 6.60	Well Diameter: 1"
Total Volume Purged: 4 GAL	Casing Type: PVC
Purge Rate: 150 Ml	YSI SN: 07F100306 Larutt 2020 WE
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): ~7.8'	Color: GRAY → CLEAR Odor: NONE

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (uS/cm[3])	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
0850	6.63		6.47	721	9.48	7.21	691 AU	194.3	150
0855	6.62		6.83	678	8.98	7.03	9.64 NTU	189.2	150
0900	6.63		6.56	681	9.17	6.98	2.16	188.2	150
0905	6.63		6.78	673	8.93	6.95	-2.38	187.3	150
0910	6.63		6.85	671	8.87	6.94	-2.14	186.4	150
0915	6.63		6.80	669	8.97	6.94	-1.63	185.7	150
JTS									

[signature]
1-10-17

JTS

Sampling Time: 0930

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-004A (01102017)	PFCs	N	Trizma
	VOCs	N	HCL
	TOC	N	H3PO4
	Metals + Hg	N	HNO3
	pH	N	None

Additional Field Measurements

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: JS-MW-004B		Area: John Street	
Date: ~~1/1/17~~ 1/4/2017		Sampling Device:	Inertial - Waterra Pump
Sampling Personnel: ZB			
Weather Conditions: overcast			
Time: 1418			

Total Depth (TD)[1]:	~~44~~. 62.79' (OBTAINED POST SAMPLING)	Screen Length:	5
Depth to Water (DTW):	17.41	Well Diameter:	1"
Total Volume Purged:	10.25 GAL	Casing Type:	PVC
Purge Rate:	100 ML/MIN		
Tubing Type: HDPE		Measuring Point:	Top of Casing
Pump Intake (feet below MP):	~60 FT BTOC	Color: Clear	Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1422	17.48		8.72	1.44	6.0	9.65	121	184.1	100
1428	17.6		10.09	0.948	6.3	9.08	16.5	180.1	100
1433	17.74		10.14	1.039	4.2	8.43	159	177	100
1440	17.78		9.89	1.034	4.0	8.09	24.0	176	100
1451	17.65		9.89	1.028	3.5	7.92	18.8	175	100
1455	17.67		9.89	1.026	3.4	7.87	15.7	175	100
1500	17.65		9.78	1.022	3.1	7.79	15.6	174	100
1505	17.60		9.83	1.020	3.3	7.72	22.5	172	100
1510	17.60		9.82	1.017	2.8	7.67	20.9	171	100
1515	17.60		9.87	1.015	2.7	7.63	22.7	170	100
1520	17.62		9.91	1.013	2.4	7.57	11.7	168	100

ZB

Sampling Time: 15:37

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-004B(01042017)	VOL PFC TOC, Metals, PH	NO	HCL, TRIZMA, H3PO4, HNO3, NONE

Additional Field Measurements

YSI: model 556MPS SN 10A1443 LAMOTTE 2020E

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: JS-MW-004C	Area: John St
Date: 1/10/2017	Sampling Device: Peristaltic Pump
Sampling Personnel: Caldwell Payne	
Weather Conditions: ~15°F, Partly Cloudy	
Time: 0841	

Total Depth (TD)[1]: 110.18	Screen Length: 5'
Depth to Water (DTW): 18.18	Well Diameter: 1"
Total Volume Purged: 3 gal	Casing Type: PVC
Purge Rate: 175 mL/min	YSI S/N 15L102308; Turbidity 2020WE 8249-4116
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): ~108'	Color: Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0853	18.22		5.73	299	9.40	7.74	25.9	173.3	200
0858	18.26		8.38	690	1.79	7.67	12.8	133.8	150
0903	18.26		9.08	688	1.18	7.63	5.59	120.6	175
0908	18.27		9.36	710	0.86	7.62	4.69	110.8	175
0913	18.27		9.46	738	0.69	7.61	5.46	108.0	175
0918	18.27		9.45	781	0.62	7.56	9.99	103.5	175
0923	18.28		9.56	785	0.56	7.54	9.93	101.0	175
0928	18.28		9.47	794	0.52	7.54	9.74	98.6	175

CP

Sampling Time: 0931

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-004C(01102017)	PFCs	N	Trizma
	VOCs	N	HCL
	TOC	N	H3PO4
	Metals + Hg	N	HNO3
	pH	N	None

Additional Field Measurements

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: FS-MW-005A	Area: John St Street
Date: 1/4/2017	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: Lisa Kleinschmidt	
Weather Conditions: overcast 37°F	
Time: 1353	

Total Depth (TD)[1]: 11.74' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5 ft
Depth to Water (DTW): 7.80	Well Diameter: 1"
Total Volume Purged: 7.5 gallons	Casing Type: PVC
Purge Rate: 200 ML/MIN	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~10 FT BTOC	Color: None Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1405	7.83		3.03	342	13.88	6.49	1.74	225.1	~~100~~ 90
1410	7.85		3.00	327	12.58	6.59	1.95	190.2	~~100~~ 110
1415	7.84		2.89	325	12.29	6.72	1.11	167.7	85
1420	7.84		2.76	324	12.28	6.82	1.21	151.5	60
1425	7.83		2.72	322	12.20	6.89	0.66	141.7	65
1430	7.83		2.68	323	11.85	6.99	1.60	125.5	70
1440	7.83		2.65	321	11.99	7.03	1.08	113.8	100
1445	7.83		2.66	321	11.70	7.06	1.06	106.7	200
1450	7.83		2.66	321	12.15	7.09	1.39	100.6	200
1455	7.83		2.63	322	12.10	7.11	0.84	96.6	200
1500	7.83		2.64	322	12.05	7.12	1.07	92.6	200
1505	7.84		2.64	322	12.00	7.14	0.94	89.1	200

LK

Sampling Time: 1515

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
JS-MW-005A	VOC PFC Metals PH, TOC	N	HCL, TRIZMA, HNO3 NONE, H3PO4

Additional Field Measurements

YSI SN: 11B101769 / LAMOTTE 2020E

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-24B	Area: John Street off site
Date: 01/06/2017	Sampling Device: ~~Inertial - Waterra Pump~~ PERISTALTIC PUMP
Sampling Personnel: M. Fox	
Weather Conditions: 19°F ~~X~~ Sunny Calm	
Time: 0800	

Total Depth (TD)[1]: 38.98' BTOC (OBTAINED POST SAMPLING)	Screen Length:	5'	
Depth to Water (DTW): 20.56'	Well Diameter:	1"	
Total Volume Purged: 3.5 gal	Casing Type:	PVC	
Purge Rate: 200 ML/MIN			
Tubing Type: HDPE	Measuring Point:	Top of Casing	
Pump Intake (feet below MP): ~37.5' BTOC	Color: Dark Brown	Odor:	

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0805	20.63		9.46	1.020	1.40	7.35	1613	193.1	200
0810	20.65		9.69	1.128	0.91	7.35	1625	170.6	
0815	20.63		9.76	1.240	0.88	7.33	33	144.0	
0820	20.63		9.65	1.262	0.72	7.32	43.7	120.6	
0825	20.63		9.63	1.336	0.55	7.33	14.7	44.6	
0830	20.63		9.66	1.375	0.45	7.34	12	3.4	
0835	20.63		9.71	1.412	0.40	7.31	12.5	0.7	
0840	20.63		9.68	1.424	0.38	7.33	11.6	-1.6	
0845	20.64		9.66	1.454	0.36	7.33	10.3	-13.4	
0850	20.64		9.70	1.455	0.33	7.31	9.6	-14.0	
0855	20.64		9.71	1.458	0.33	7.33	10.86	-15.5	

MF

M Fox
01/06/2017

MF

Sampling Time: 0900

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-24B(01062017)	PFC	N	Trizma
	pH		NONE
	TOC		H_3PO_4
	Metals		HNO_3
	VOC		HCL

Additional Field Measurements

Notes: Peri pump - 14312 / YSI 26888 / LAMOTTE 2020E

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-025A		Area: Johns Street - Off Site	
Date: 01/06/2017		Sampling Device:	Inertial ~~Waterra Pump~~ Peristaltic
Sampling Personnel: Lisa Kleinschmidt			
Weather Conditions: Clear 17°F			
Time: 08:20			

Total Depth (TD)[1]: 16.47' BTOC (OBTAINED POST SAMPLING)		Screen Length:	5 ft
Depth to Water (DTW): 13.25		Well Diameter:	1"
Total Volume Purged: 3.5 gallons		Casing Type:	PVC
Purge Rate: ~200ML/MIN			
Tubing Type: HDPE		Measuring Point:	Top of Casing
Pump Intake (feet below MP): ~15.5 FT BTOC		Color: Clear	Odor: None

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
0825	13.25		8.68	743	11.35	6.54	28.6	158.2	200
0830	13.3		9.73	751	3.48	6.52	9.97	133.2	200
0835	13.3		9.77	756	3.21	6.53	5.19	123.6	200
0840	13.3		9.87	759	3.12	6.53	3.19	119.8	200
0845	13.3		9.91	759	2.90	6.53	1.58	117.7	200
0850	13.3		10.0	762	2.95	6.54	1.80	115.4	200
0855	13.3		9.71	770	2.91	6.53	1.27	114.0	200
0900	13.3		9.61	772	~~2.93~~ 2.85	6.53	1.42	112.9	200
0905	13.3		9.48	771	2.86	6.53	1.40	112.2	200
0910	13.3		9.90	769	2.80	6.54	0.31	107	200

LK

Sampling Time: 09:15

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-025A	PFC, VOC, Metals TOC, PH	N	TRIZMA, HCL, HNO3 H3PO4, NONE

Additional Field Measurements

YSI: 556 MPS 15L102308 LAMOTTE 2020E

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: OS-MW-02~~3~~B	Area: Off-Site Hoosick Falls
Date: 1/9/17	Sampling Device: ~~Inertial Waterra Pump~~ Peri pump
Sampling Personnel: ZB	
Weather Conditions: clear	
Time: 12:49	

Total Depth (TD)[1]: 21.67' BTOC (OBTAINED POST SAMPLING)	Screen Length: 2'
Depth to Water (DTW): 13.42	Well Diameter: 1"
Total Volume Purged: 1.6 gallons	Casing Type: PVC
Purge Rate: Very slow ~100ML/MIN	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~21 FT BTOC	Color: clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
12:51	13.42		9.82	1488	3.29	6.79	19.0 NTU	222.6	30
12:56	13.42		9.94	1460	3.09	6.79	14.6	219.4	70
13:02	13.42		10.34	14.00	2.07	6.79	7.62	201.6	100
13:10	13.45		10.36	1389	1.90	6.78	4.06	192.3	100
13:14	13.48		10.46	1387	1.20	6.78	3.6	180.4	100
1320	13.48		10.60	1382	~~0.98~~ 0.98	6.77	2.35	177.5	100

ZB

ZB

Sampling Time: 13.20

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-028B(01092017)	VOC, PFC, Metals, TOC PH	No	Trizma, HCl, HNO3, H3PO4 NONE

Additional Field Measurements

Model: 556MPS SN: 16A104336 / LAMOTTE 2020E

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: OS-MW-025C	Area: Johns Street - Offsite
Date: 01/06/2017	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: Lisa Kleinschmidt	
Weather Conditions: Clear 17°F	
Time: 1015	

Total Depth (TD)[1]: 24.72' BTOC (OBTAINED POST SAMPLING)	Screen Length: 2 ft
Depth to Water (DTW): 13.22	Well Diameter: 1"
Total Volume Purged: 2.5 gallons	Casing Type: PVC
Purge Rate: ~150 ML/MIN	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~24' BTOC	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (μS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1025	14.3		12.32	1385	5.02	7.32	12.3	124.3	~~200~~ 150
1035	23.2		11.89	1443	2.51	7.21	11.14	119.1	~~200~~ 150
1040	23.2		11.24	1433	4.06	7.23	7.79	117.6	150
1045	23.2		11.18	1431	4.88	7.23	6.96	116.7	150
1050	23.4		11.33	1427	4.24	7.21	5.90	115.9	150
1055	23.4		11.23	1424	5.23	7.23	6.17	115.5	150
1100	23.4		11.38	1424	5.54	7.22	4.00	113.1	150
1105	23.4		11.34	1426	5.80	7.23	2.58	115.0	150
1110	23.4		11.64	1428	5.87	7.23	1.72	114.8	150

LK

Sampling Time: 11:15

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-025C	PFC, Metals, VOC TOC, PH	NO	TRIZMA, HNO3, HCL H3PO4, NONE

Additional Field Measurements

YSI 556 MPS 15L102308

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-026 A	Area: ~~OS~~ John St. offsite
Date: 01/06/2017	Sampling Device: ~~Inertial - Waterra Pump~~ MF PERISTALTIC PUMP
Sampling Personnel: M. FOX	
Weather Conditions: 20°F Sunny	
Time: 0950	

Total Depth (TD)[1]: 20.43' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5'
Depth to Water (DTW): 13.10	Well Diameter: 1"
Total Volume Purged: 3 gal	Casing Type: PVC
Purge Rate: 300 ML/MIN	YSI 216888 / LAMOTTE 2020E
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~ 19 FT BTOC	Color: Odor:

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
0955	13.11		8.78	1.580	6.71	6.77	0	161.7	300
1000	13.11		10.03	1.362	6.98	6.78	0	165.0	
1005	13.11		10.81	1.245	~~6~~ MF 7.66	6.77	2.81	170.2	
1010	13.11		10.99	1.230	7.61	6.73	3.68	178.2	
1015	13.11		~~10~~ MF 11.08	1.222	7.58	6.73	2.19	181.4	
1020	13.11		10.88	1.220	7.83	6.72	0	183.8	
1025	13.11		11.00	1.216	7.66	6.72	0.96	188.2	
MF									

Mike Fox
01/06/2017

MF MF

Sampling Time: 1035

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-026A(01062017)	PFC	N	Trizma
	pH		NONE
	VOC		HCl
	TOC		H_3PO_4
	Metals		HNO_3

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-026B	Area: John St. Off site
Date: 01/06/2017	Sampling Device: ~~Inertial - Waterra Pump~~ PERISTALTIC PUMP
Sampling Personnel: M. Fox	
Weather Conditions: 25°F Sunny	
Time: 1120	

Total Depth (TD)[1]: 40.67' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5'
Depth to Water (DTW): 13.98	Well Diameter: 1"
Total Volume Purged: 6 gal	Casing Type: PVC
Purge Rate: 350 ML/MIN	YSI 216888 / LAMOTTE 2020E
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~39.5' BTOC	Color: Odor:

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
1125	14.01		11.07	1.129	3.00	7.52	0	109.3	350
1130	14.00		11.17	1.137	0.59	7.46	0	39.0	
1135	14.01		11.31	1.135	0.39	7.43	13.8	7.1	
1140	14.00		11.27	1.141	0.33	7.43	3.4	-0.2	
1145	14.00		11.19	1.132	0.25	7.45	2.51	-10.8	
1150	14.00		11.66	1.138	0.20	7.42	2.11	-14.7	
1155	14.00		11.49	1.143	0.19	7.45	2.26	-17.0	
1200	14.00		11.52	1.134	0.18	7.45	2.83	-18.0	

MF

Matthew Fox
01/06/2017

MF

Sampling Time:

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-026B(01062017) 1210	PFC	N	Trizma
MW-DUP-001 1200	pH	↓	NoNE
	ToC	↓	H_3PO_4
	VOC	↓	HCL
	Metals	↓	HNO_3

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: OS-MW-026C	Area: Outside John St.
Date: 01/09/17	Sampling Device: ~~Inertial - Waterra Pump~~ (EA) PERISTALTIC PUMP
Sampling Personnel: Eliel Lucero	
Weather Conditions: 16°F Cloudy	
Time: 1400	

Total Depth (TD)[1]: 78.32' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5 ft
Depth to Water (DTW): 14.07	Well Diameter: 1"
Total Volume Purged: 2.5 L	Casing Type: PVC
Purge Rate: ~200 ML/MIN	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~76.5 FT BTOC	Color: Odor:

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
1400	14.10		9.40	927	3.15	0.68	78.0	148.1	200
1405	14.12		9.39	926	2.72	2.59	69.6	130.8	200
1410	14.12		8.78	915	1.86	4.57	7.91	118.4	200
1415	14.12		8.56	914	1.59	4.44	4.70	115.5	200
1420	14.12		8.31	913	1.62	3.34	4.70	110.9	200
1425	14.12		8.25	913	1.42	3.10	3.44	109.4	200
1430	14.12		8.31	912	1.13	1.03	3.26	106.7	200
1435	14.12		8.32	912	1.14	1.01	3.25	104.7	200
			8.29	912	1.09	1.07	3.08	102.9	200
Sample @ 1445									

EA

5L

Sampling Time: 1445

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-026C(01092017)	TOC ~~SVOC~~ (EA)	N	H_3PO_4, HNO_3,
	VOC ~~Cyanide~~ (EA)		NONE, HCL TRIZMA
	PH		
	PFCs		
	Metals		

Additional Field Measurements

YSI Serial # 15L102308
LAMOTTE 2020E

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-027A		Area:	Off Site Salem Street
Date: 01/10/2017		Sampling Device:	Peristaltic Pump
Sampling Personnel: M. Fox			
Weather Conditions: 14°F Cloudy			
Time: 0925			

Total Depth (TD)[1]:	19.76 - post sampling	Screen Length:	5'
Depth to Water (DTW):	13.95	Well Diameter:	1"
Total Volume Purged:	3.5 gal	Casing Type:	PVC
Purge Rate:	300		
Tubing Type:	HDPE	Measuring Point:	TOC
Pump Intake (feet below MP):	~ 17.5'	Color:	Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0930	14.01		9.07	978	8.50	6.91	19.3	80.6	300
0935	14.02		10.12	997	8.09	6.76	9.90	92.5	
0940	14.02		10.12	998	8.16	6.75	10.09	94.1	
0945	14.01		10.15	1003	8.27	6.73	6.50	97.0	
0950	14.01		10.11	1006	8.23	6.72	3.33	97.7	
0955	14.02		10.13	1012	8.23	6.71	2.88	102.4	
MF									

Matt Fox
01/10/2017

CP
MF

Sampling Time: 1000

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-027A(01102017)	PFCs	N	Trizma
	VOCs	N	HCL
	TOC	N	H3PO4
	Metals + Hg	N	HNO3
	pH	N	None

YSI 16A104336
Additional Field Measurements

Notes: Lamotte 2020 we

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-027A	Area: John Street off site
Date: 01/11/2017	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: M. Fox	PERISTALTIC + INERTIAL
Weather Conditions: 50°F Sunny	(COMPARISON)
Time: 1330	

Total Depth (TD)[1]: 19.76' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5"
Depth to Water (DTW): 13.86	Well Diameter: 1"
Total Volume Purged: 4.5 gal	Casing Type: PVC
Purge Rate: 300 ML/MIN	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~17.5' BTOC	Color: Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1335	13.90		4.48	539	12.58	8.21	43	22.3	300
1340	13.90		4.33	404	12.63	8.22	34	12.1	
1345	13.82		5.01	440	12.28	7.96	45	14.6	
1350	13.85		5.66	501	12.16	7.63	90	23.9	
1355	13.90		6.45	591	11.82	7.32	93	36.0	
1400	13.90		6.91	658	11.68	7.17	98	43.9	
1405	13.91		~~6~~ 7.57	729	11.53	7.03	65.7	55.3	
1410	13.90		7.70	740	11.44	7.01	60.9	56.0	
1415	13.91		7.75	747	11.25	6.99	64.0	57.1	

MF

Matt Fox 01/11/2017

MF

Sampling Time: 1420

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-027A(01112017)1420	VOC	N	HCl
OS-MW-027AI(01112017)1420			

Additional Field Measurements

YSI - 16A104336

Lamotte 2020we

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-027B	Area: Off site John Street
Date: 01/10/2017	Sampling Device: Peristaltic Pump
Sampling Personnel: M. Fox	
Weather Conditions: 14°F Cloudy	
Time: 1025	

Total Depth (TD)[1]: 88.10	Screen Length: 3'
Depth to Water (DTW): 16.49	Well Diameter: 1"
Total Volume Purged: 7.5 gal	Casing Type: PVC
Purge Rate: 300	
Tubing Type: HDPE	Measuring Point: TOC
Pump Intake (feet below MP): ~86 ft.	Color: Clear Odor:

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (uS/cm³) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1030	17.75		8.05	403	2.38	8.21	88	64.1	300
1035	17.69		9.74	383	0.15	8.14	43.7	19.4	
1040	17.85		9.68	383	0.15	8.12	23.0	-1.3	
1045	17.81		9.74	383	0.12	8.08	12.2	-50.8	
1050	17.81		9.78	384	0.10	8.05	8.53	-95.9	
1055	17.82		9.82	384	0.09	8.05	9.60	-104.8	
1100	17.82		9.81	384	0.32	8.06	6.32	-131.4	
1105	17.81		9.92	385	0.28	8.03	5.66	-132.8	
1110	17.81		9.90	385	0.15	8.00	5.68	-107.4	
1115	17.80		9.85	386	0.15	8.00	6.08	-109.8	
1120	17.83		9.93	385	0.13	7.99	4.52	-115.8	
1125	17.81		9.90	386	0.12	7.98	4.19	-113.9	
1130	17.83		9.90	386	0.12	7.97	3.94	-119.6	
MF									

M Fox
01/10/2017
CP
MF

Sampling Time: 1135

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-027B(01102017)	PFCs	N	Trizma
	VOCs	N	HCL
	TOC	N	H3PO4
	Metals + Hg	N	HNO3
	pH	N	None

YSI 16A104336
Additional Field Measurements
Lamotte 2020We

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well:	OS-MW-027C	Area:	Off Site John Street
Date:	01/10/2017	Sampling Device:	Peristaltic Pump
Sampling Personnel:	M. Fox		
Weather Conditions:	14°F Cloudy		
Time:	0755		

Total Depth (TD)[1]:	98.00	Screen Length:	3'
Depth to Water (DTW):	16.50	Well Diameter:	1"
Total Volume Purged:		Casing Type:	PVC
Purge Rate:	300		
Tubing Type:	HDPE	Measuring Point:	TOC
Pump Intake (feet below MP):	~97'	Color: Dark Brown	Odor:

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (uS/cm³)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
0800	16.66		8.54	349	6.76	7.24	OR	~~OR~~ -60.6	300
0805	16.70		9.51	379	1.01	7.93	3110	-280.3	
0810	16.70		9.63	377	0.79	7.92	2393	-272.8	
0815	16.71		9.41	377	0.49	7.92	1294	-260.4	
0820	16.71		9.43	378	0.38	7.91	765	-259.8	
0825	16.70		9.56	379	0.32	7.91	692	-228.1	
0830	16.72		9.65	379	0.37	7.93	41	-177.7	
0835	16.71		9.71	380	0.35	7.91	8	-167.4	
0840	16.71		9.57	380	0.27	7.91	0	-187.2	
0845	16.71		9.61	381	0.25	7.90	0	-183.4	
0850	16.72		9.68	382	0.25	7.90	0	-186.2	

MF

M. Fox
01/10/2017

CP

MF

Sampling Time: 0900

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-027C(01102017)	PFCs	N	Trizma
	VOCs	N	HCL
	TOC	N	H3PO4
	Metals + Hg	N	HNO3
	pH	N	None

LaMotte 2020we

Additional Field Measurements

Notes: YSI 16A104336

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: OS - MW - 028A	Area: John St. Offsite
Date: 1/10/2017 / 01/11/2017	Sampling Device: ~~Inertial - Waterra Pump~~
Sampling Personnel: Caldwell Payne	Peristaltic
Weather Conditions: ~5°F, Partly Cloudy	
Time: 07:58	

Total Depth (TD)[1]: 6.53	Screen Length: 3'
Depth to Water (DTW): 6.45' / 7.07 (01/11/17)	Well Diameter: 1"
Total Volume Purged: ~75 mL	Casing Type: PVC
Purge Rate: NA	YSI S/N: NA
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~6.5'	Color: Tan Odor: None

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
		Purged dry @ 08:07. ~75 mL purged, allowed to recharge							
		DTW checked @ 13:15. No recharge							
		Purged dry @ 0813 ~75 mL purged							

CP

Sampling Time:

Sample ID: Analysis Requested: Filtered Y/N: Preservative:

Not Sampled

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-028A	Area: JS Offsite
Date: 1/6/17	Sampling Device: ~~Inertial - Waterra Pump~~ Peristaltic pump
Sampling Personnel: Caldwell Payne	
Weather Conditions: ~25°F, sunny	
Time: 11:25	

Total Depth (TD)[1]:	Screen Length:
Depth to Water (DTW): 6.69	Well Diameter: 1"
Total Volume Purged:	Casing Type: PVC
Purge Rate:	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP):	Color: Odor:

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
1258	7.1		6.51	6673	12.0	7.22		155.2	
- pumped dry twice to fill YSI flow-through cell.									
well would not recharge - sample abandoned									

Sampling Time:

Sample ID: Analysis Requested: Filtered Y/N: Preservative:

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-028 B	Area: John st. offsite
Date: 1/9/2017	Sampling Device: ~~Inertial - Waterra Pump~~ Peristaltic Pump
Sampling Personnel: Caldwell Payne	
Weather Conditions: ~ 15° F, partly cloudy	
Time: 13:03	

Total Depth (TD)[1]: 76.06' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5' FT
Depth to Water (DTW): 24.22' BTOC	Well Diameter: 1"
Total Volume Purged: 4.25 GAL	Casing Type: PVC
Purge Rate: ~140 ML/MIN	YSI SN: 10A101443 / LAMOTTE 2020E
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~74.5 FT BTOC	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1316	24.27		9.19	244	12.67	7.27	12.2	185.8	200
1321	24.28		10.12	340	6.50	8.06	4.87	176.3	140
1326	24.28		10.43	331	4.26	8.29	3.85	171.5	140
1331	24.28		10.40	332	3.40	8.38	5.30	168.4	140
1336	24.28		10.41	338	2.49	8.46	5.64	163.5	140
1341	24.28		~~10.40~~ 10.46 CP	342	1.84	8.48	6.20	157.8	140
1346	24.29		10.45	376	1.51	8.49	3.83	152.2	140
1351	24.29		10.44	414	1.14	8.57	3.27	147.7	140
1356	24.29		10.48	444	1.19	8.64	2.91	140.6	140
1401	24.29		10.28	460	1.20	8.67	3.18	134.2	140
1406	24.29		10.27	464	0.96	8.68	2.63	127.2	140
1411	24.29		10.35	465	0.71	8.72	2.98	117.5	140
1416	24.29		10.35	468	0.66	8.71	3.00	108.4	140
1421	24.29		10.35	471	0.54	8.72	2.65	96.9	140
1426	24.29		10.30	473	0.44	8.72	2.58	86.8	140
1431	24.29		10.36	472	0.41	8.71	2.53	78.5	140
1436	24.30		10.38	475	0.32	8.71	3.45	72.2	140
1441	24.30		10.31	475	0.31	8.71	2.21	67.1	140
1446	24.30		10.25	475	0.27	8.70	2.61	62.5	140
~~14~~									
								CP CP	

Sampling Time: 1444

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-028B(01092017)	PFC, VOC, TOC, Metals pH	No	Trizma, HCl, H_3PO_4, ~~HNO3~~ NONE

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: OS-MW-028C	Area: Hoosick Falls, OS
Date: 01/06/2017	Sampling Device: ~~Inertial - Waterra Pump~~ Peristaltic pump
Sampling Personnel: ZB	
Weather Conditions: Mostly cloudy	
Time: 11:50	

Total Depth (TD)[1]: 100.82' BTOC (OBTAINED POST SAMPLING	Screen Length: 5'
Depth to Water (DTW): 24.2	Well Diameter: 1"
Total Volume Purged: 1.5 GAL	Casing Type: PVC
Purge Rate: ~~±10~~ ~~J~~ ~~(60)~~ ~100 ML/MIN	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP):	Color: whitish grey color Odor: sulfur odor

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
11:55	24.2		9.42	587	8.65	8.01	685AU	-14.9	100
12:00	24.18		10.21	7.41	0.77	7.63	52NTU	-64.4	70
12:05	24.2		10.16	742	0.44	7.56	58.9	-74.4	100
12:10	24.18		10.16	740	0.39	7.52	31.0	-76.2	100
12:15	24.18		10.20	740	0.35	7.50	22.7	-75.8	150
12:20	24.18		10.36	741	0.30	7.50	15.4	-80.7	150
12:25	24.2		10.20	743	0.27	7.48	12.8	-81.1	100
12:30	24.18		10.29	742	0.30	7.43	16.5	-82.0	100
12:35	24.18		10.22	744	0.27	7.46	11.61	-83.2	100

ZB

Sampling Time: 1240

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-028C (01062017)	VOC TOC metals PFCs PH	No	HNO3, Trizma, H2SO4, HCL, NONE

Additional Field Measurements

Model: 556MPS SN: 07F100306 / LAMOTTE 2020E

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: OS-MW-030A	Area: off site John St
Date: 01/09/2017	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: M. Fox	
Weather Conditions: 15°F Cloudy	
Time: 1245	

Total Depth (TD)[1]:		Screen Length:	5'
Depth to Water (DTW): 13.10		Well Diameter:	1"
Total Volume Purged:		Casing Type:	PVC
Purge Rate:			
Tubing Type: HDPE		Measuring Point:	Top of Casing
Pump Intake (feet below MP):		Color:	Odor:

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (µS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
1250	—		6.25	1.546	8.73	7.91	1612	244.7	
		Well went Dry at One Well Volume							

Sampling Time:

Sample ID: Analysis Requested: Filtered Y/N: Preservative:

Additional Field Measurements

26888

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: 05-MW-030A	Area: John St. - Offsite
Date: 1/10/2017	Sampling Device: ~~Inertial - Waterra Pump~~ Peristaltic
Sampling Personnel: Caldwell Payne	
Weather Conditions: ~15° F, Partly cloudy	
Time: 0820	

Total Depth (TD)[1]: 14.63	Screen Length: 5'
Depth to Water (DTW): 13.62	Well Diameter: 1"
Total Volume Purged: 500 mL	Casing Type: PVC
Purge Rate: ~150 mL/min	YSI S/N 15L102308; Turbidity 2020 WE 8249-4116
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~14.5'	Color: Clear; Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0824			7.25	883	4.60	7.04		204.2	

Pumped dry @ 08:25 immediately following YSI parameters.
Recharge checked @ 13:30. DTW = 14.23'
Recharge checked @ 1500 DTW = 14.12'. Sampled for VOCs @ 1502
well dry @ 1503. Recharge too slow to attempt another sample.

CP

Sampling Time: 1502

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
05-MW-030A(01102017)	VOC (2 VOA's only)	N	HCl

Additional Field Measurements

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

65

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: 05-MW-030B	Area: OFF SITE - JOHN ST.
Date: 1-9-17	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: JAMES SUZT	
Weather Conditions: 15°F	
Time: 0100	

Total Depth (TD)[1]: 81.50' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5'
Depth to Water (DTW): 36.40	Well Diameter: 1"
Total Volume Purged: 4 GAL	Casing Type: PVC
Purge Rate: 300 ML/MIN	07F100306
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~79.5 FT BTOC	Color: BLACK Odor: NONE

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1300	38.80		10.55	123	13.0	9.89	~~765.9~~ OR	166.1	300
1305	40.20		10.10	451	8.0	9.51	-53	162.6	300
1310	38.0		9.80	459	6.6	9.76	OR	162.4	300
1315	38.10		10.00	489	6.0	8.98	OR	165.4	
1320	38.13		9.98	494	5.3	8.99	OR	165.1	
1325	38.30		10.13	496	4.3	8.88	OR	163.6	
1330	38.40		9.97	488	4.0	9.01	-53	161.6	
1335	38.51		10.07	459	3.9	9.25	OR	160.8	
1340	38.68		10.13	452	3.7	9.38	OR	159.4	
1345	38.80		10.27	440	3.8	9.62	OR	156.8	
1350	38.86		10.23	434	3.7	9.87	OR	151.7	
1355	38.97		10.23	435	3.5	9.85	OR	150.3	
1400	39.07		9.95	434	3.6	9.87	OR	149.1	
JS									

1-9-17

JS

Sampling Time: 1410

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
05-MW-030B (01092017)	PFC, VOC, TOC, PH METALS	N	TRIZMA, HCL H_3PO_4, NONE, HNO_3

Additional Field Measurements
OR = OVER RANGE

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-030C	Area: Off site John Street
Date: 01/09/2017	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: M. Fox	
Weather Conditions: 15°F	
Time: 1320	

Total Depth (TD)[1]: 89.5' BTOC (OBTAINED POST SAMPLING)	Screen Length: 3'
Depth to Water (DTW): 37.50	Well Diameter: 1"
Total Volume Purged: 5 gal	Casing Type: PVC
Purge Rate: 300 ML/MIN	
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP):	Color: ~~X~~ Dark Brown Odor:

Time: (min)	DTW: (feet)	Comments:	Temp (°C)	SpC (μS/cm)	DO (mg/L)	pH (std units)	Turb NTU	ORP mV	Flow (mL/min)
Stabilization Criteria[2]			+/- 3%	+/- 3%	+/- 10%	+/- 0.1 unit	+/- 10%[3]	+/- 10 mV	100-400
1325	37.75		8.94	0.685	2.02	7.70	97	184.3	300
1330	37.75		9.76	0.706	1.01	7.61	83	114.7	
1335	37.75		10.32	0.714	0.75	7.57	105.1	26.9	
1340	37.78		10.28	0.715	0.69	7.57	81.4	12.6	
1345	37.76		10.41	0.716	0.58	7.56	51.4	2.7	
1350	37.75		10.39	0.716	0.50	7.56	45.7	-2.6	
1355	37.75		10.39	0.717	0.53	7.56	43.0	-7.1	
1400	37.75		10.21	0.717	0.53	7.56	33.3	-9.2	
1405	37.75		10.33	0.717	0.52	7.55	37.0	-16.0	
1410	37.76		10.37	0.717	0.56	7.55	35.1	-18.2	
1415	37.75		10.32	0.718	0.55	7.55	36.8	-19.0	

MF

Mike Fox
01/09/2017

MF

Sampling Time: 1420

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-030C(01092017)	PFC	N	Trizma
	VOC		HCL
	TOC		H_3PO_4
	pH		NONE
	Metals		HNO_3

Additional Field Measurements
26888 / LAMOTTE 2020E

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

ERM

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

Monitoring Well: OS-MW-030D	Area: John Street Off Site
Date: 1-9-17	Sampling Device: Inertial - Waterra Pump
Sampling Personnel: JAMES SMIT	
Weather Conditions: 17°F Cloudy	
Time: 1503	

Total Depth (TD)[1]: 107' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5'
Depth to Water (DTW): 37.45	Well Diameter: 1"
Total Volume Purged: 5 gal	Casing Type: PVC
Purge Rate: 120 ML	07F100306 (YSI) / LAMOTTE 2020E
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~ 106.5 FT BTOC	Color: Light Black → clear Odor: NONE

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
1508	37.50		9.98	578	13.0	7.66	2121AO	71.7	120
1515	37.50		9.04	581	6.5	7.53	1897AO	58.4	
1520	37.50		9.14	582	5.75	7.47	1804AO	52.2	
1525	37.50		9.29	583	5.25	7.47	1509AO	46.7	
1530	37.50		9.28	584	4.80	7.44	1224AO	41.0	
1537	37.50		9.58	586	3.50	7.42	773AO	31.7	
1545	37.48		9.66	587	3.00	7.42	232NTO	27.6	
1550	37.48		9.57	588	2.75	7.40	56	24.7	
1557	37.48		9.42	588	2.10	7.38	76.7	19.2	
1602	37.45		9.59	587	1.97	7.37	79.6	17.0	
1607	37.45		9.58	588	1.94	7.37	72.5	14.2	
STS									

James Smit
1-9-17

JW
STS

Sampling Time: 1615

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-030D(01092017)	PFC	N	TRIZMA
	VOC		HCl
	TOC		H_3PO_4
	pH		NONE
	Metals		HNO_3

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-031A	Area: SS offsite
Date: 1/6/2017	Sampling Device: ~~Inertial - Waterra Pump~~ Peristaltic Pump
Sampling Personnel: Caldwell Payne	
Weather Conditions: ~20°F, calm	
Time: 0848	

Total Depth (TD)[1]: 15.27' BTOC (OBTAINED POST SAMPLING)	Screen Length: 5'
Depth to Water (DTW): 12.92	Well Diameter: 1"
Total Volume Purged: 2.2 gal	Casing Type: PVC
Purge Rate: ~125 ML/MIN	YSI S/N 16A104336 / LAMOTTE 2020E
Tubing Type: HDPE	Measuring Point: Top of Casing
Pump Intake (feet below MP): ~14.5 FT BTOC	Color: Clear Odor: None

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0902			8.34	1308	10.81	6.95	30.2	230.5	175
0907	12.93		9.12	1330	7.15	7.05	24.8	233.3	120
0912	12.93		9.52	1327	6.33	7.03	11.7	236.2	120
0917	12.94		9.73	1315	6.33	7.03	6.65	237.5	125
0922	12.94		10.04	1299	6.03	7.03	3.11	231.2	125
0927	12.94		10.22	1290	6.26	7.02	2.07	231.1	125
0932	12.94		10.25	1288	6.15	7.05	1.75	225.9	

DW
CP

Sampling Time: 09:37

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-031A(01062017) OS-MW-031A(01062017)-MS OS-MW-031A(01062017)-MSD	PFC, VOC, TOC, metals Pesticides, PCB's, SVOCs Cyanide, PH	N	Trizma, HCl, H_3PO_4, HNO_3, NaOH, NONE

Additional Field Measurements

Notes:

[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.

[2] = Stabilization criteria based on three most recent consecutive measurements.

[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

Low-Flow Groundwater Sampling Form

Site Name: Arnold & Porter - Hoosick Falls
Project No.: 0378075

ERM

Monitoring Well: OS-MW-031B		Area: Hoosick Falls OS	
Date: 01/06/2017		Sampling Device:	~~Inertial - Waterra Pump~~ Peristatic pump
Sampling Personnel: ZB			
Weather Conditions: clear			
Time: 08:50			

Total Depth (TD)[1]: 24.60' BTOC (OBTAINED POST SAMPLING)		Screen Length: 3'	
Depth to Water (DTW): 13.21		Well Diameter:	1"
Total Volume Purged: ~1.0 GAL		Casing Type:	PVC
Purge Rate: ~100 ML/MIN			
Tubing Type: HDPE		Measuring Point:	Top of Casing
Pump Intake (feet below MP): ~24 FT BTOC		Color: Murky whitish color	Odor: Sulfur odor

Time: (min) Stabilization Criteria[2]	DTW: (feet)	Comments:	Temp (°C) +/- 3%	SpC (µS/cm) +/- 3%	DO (mg/L) +/- 10%	pH (std units) +/- 0.1 unit	Turb NTU +/- 10%[3]	ORP mV +/- 10 mV	Flow (mL/min) 100-400
0900	15.98		8.38	17.46	~~2.95~~	6.95	722 AU	88.3	50
0913	21.24		9.58	16.31	1.36	7.06	754	66.9	50
0918	23.0		10.25	1616	0.82	7.08	3343 AU	66.6	100
0923			9.94	1660	0.72	7.10	4014 AU	60.4	100
0928	24.2		9.44	1766	0.66	7.14	0 NTU	55.4	100
0929		well went dry							
1028	19.35	ALLOW TO RECHARGE THEN COLLECT SAMPLES							
1030	18.28								

ZB

Sampling Time: 1030

Sample ID:	Analysis Requested:	Filtered Y/N:	Preservative:
OS-MW-031B (0106 2017)	Metals, PFCs, VOCs TOC, PH	No	Trizma, HNO3, H3PO4, HCL, NONE

Additional Field Measurements

YSI Model: 556 MPS SN: 07F100306 / LAMOTTE 2020E

Notes:
[1] = Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
[2] = Stabilization criteria based on three most recent consecutive measurements.
[3] = Plus or minus 10-percent when turbidity is over 10 NTUs.

SC YSI Calibration Forms

YSI Calibration Form
Site Name:

ERM

Date 01/11/2017 **Time** 1440 **Initials of tester** MP
Model 556 **SN** 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.331	19.45	1.410

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.02	19.81	7.00
10	9.93	19.73	10.02
4	4.04	19.40	4.01

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	247.1	19.75	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
good	760	19.90	108.8 10.03	99.9 9.09

YSI Calibration Form

Site Name:

ERM

Date 1-11-17 **Time** 1344 **Initials of tester** JTS

Model 556 MPS **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1412	19.85	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.10	20.06	7.00
10	9.93	20.12	10.00
4	3.92	19.75	3.99

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	241.7	19.81	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Ok	755.6	20.13	92.7%, 8.42 mg/L	99.4%, 9.04 mg/L

YSI Calibration Form
Site Name:

ERM

Date 1/11/2017 **Time** 0700 **Initials of tester** ZB
Model 556MPS **SN** 11B101760

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1384	16.86	1415

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.40 ~~9.71~~	19.71	7.00
10	10.10	21.37	10.01
4	4.08	18.35	4.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	226.1	20.01	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
—	757.2	20.06	91.0	99.78

YSI Calibration Form
Site Name:

ERM

Date 01/11/2017 **Time** 0710 **Initials of tester** MF
Model 556 MPS **SN** 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.412	15.19	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.98	20.26	7.00
10	10.03	21.24	10.00
4	4.02	19.19	4.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	235.2	21.75	239.7

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good				

YSI Calibration Form
Site Name:

ERM

Date 1-11-17 **Time** 0705 **Initials of tester** STS
Model 556 **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1380	15.07	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	14.06	21.74	7.00
4	-9.99	19.08	4.00
10	10.00	21.84	10.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	230.5	21.81	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
ok	751.9	19.98	82.1%, 7.48 mg/L	98.9%, 9.01 mg/L

YSI Calibration Form
Site Name:

ERM

Date 1/11/2017 Time 11:36 Initials of tester ZB
Model 556MPS SN 10A101443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1360	21.05	1414

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7.	7.25	21.76	7.0
10.	10.03	19.83	10.07
4.0	3.34	19.92	3.99

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	240	18.98	240.3

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
—	760	17.99	90.0	100.0

YSI Calibration Form
Site Name:

ERM

Date 1/11/17 **Time** ~~11~~ 11:20 **Initials of tester** CP
Model 556 **SN** 11B101760

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1346	21.19	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	8.06	22.38	7.01
4	5.[illegible]	22.06	3.96
10	13.36	21.95	10.23

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	240.5	22.11	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
moist	757.8	20.04	110.8% 10.07	99.7% 9.07

YSI Calibration Form
Site Name:

ERM

Date 1/10/17 **Time** 1632 **Initials of tester** CP
Model 556 MPS **SN** 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1398	17.58	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	4.30	18.21	7.01
4	6.77	18.14	4.00
10	4.54	18.11	9.96

pH calibrated 2nd time. Still off

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	237.1	18.66	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
moist	760	15.61	109.4 10.89	100.0 9.93

YSI Calibration Form
Site Name:

ERM

Date 01/10/16 **Time** 1605 **Initials of tester** MF
Model 556 **SN** 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.519	17.86	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
~~10~~ 7	6.96	18.48	7.00
10	9.99	18.29	10.00
4	4.12	18.14	4.01

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	237.1	19.12	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Fair	760	16.30	85.9 8.47	100.4 9.94

YSI Calibration Form
Site Name:

ERM

Date 1/10/2017 Time 11:30 Initials of tester CP
Model 556 MPS SN 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1411	15.73	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.96	16.33	7.00
4	4.10	16.09	4.00
10	7.97	16.22	8.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	230.0	16.74	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Moist	760	16.09	85.5 8.42	100.0 9.85

YSI Calibration Form
Site Name:

ERM

Date 1/4/17 **Time** 1656 **Initials of tester** CP
Model 556MB **SN** 10A101443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1362	10.77	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.51	11.33	4.01
10	6.04	12.17	10.05
7	7.72	12.18	7.41

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	238.5	16.79	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	14.39	97.6	99.9

YSI Calibration Form
Site Name:

ERM

Date 1/4/2017 Time 16:37 Initials of tester CP
Model 556 MPS SN 11B101760

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1388	9.64	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.17	10.29	4.00
~~7~~ 10	9.87	11.01	10.00
~~10~~ 7	708	10.90	7.05

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	233.8	18.72	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	738.2	13.74°c	96.9% 10.06 mg/L	97.1 10.06 mg/L

YSI Calibration Form
Site Name:

ERM

Date 1/4/2017 Time 16:40 Initials of tester CP
Model 556 MPS SN 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1379	9.9	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.38	10.58	4
10	10.04	11.29	10
7	7.26	11.22	7.17

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	240.2	17.37	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	760	13.64	100.6	100

YSI Calibration Form
Site Name:

ERM

Date 07/04/17 Time 1645 Initials of tester EC
Model 556MPS SN 14F100056

SPECIFIC CONDUCTIVITY

2

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.392	10.61	1.413

pH

1

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.99	10.93	4.00
10	10.01	10.64	10.00
7	7.00	10.65	7.00

ORP

3

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240.0	238.3	10.89	240.0

DO (% saturation calibration)

11

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	735.6	11.82	98.3% 10.16 mg/L	97.3% 10.53

YSI Calibration Form
Site Name:

ERM

Date 01/04/17 **Time** 12:24 **Initials of tester** SL
Model 556 MPS **SN** 14F100056

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
2 1.413	1.518	13.03	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
1 4	3.77	11.94	4.00
10	10.25	12.49	9.99
7	7.04	12.65	7.01

ORP

3 ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	270.7	12.66	240.0

DO (% saturation calibration)

1 Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	734	13.1	124.4% 12.22 mg/L	96.3% 9.65 mg/L

YSI Calibration Form
Site Name:

ERM

Date 1/4/17 Time 12:00 Initials of tester CP
Model 556 MPS SN 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1,413	1396	13.37	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.07	13.10	4.00
10	10.15	12.84	10.00
7	7.01	13.9	7.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	244.95	12.95	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	15.29	95.6	100.0

ERM

YSI Calibration Form
Site Name:

Date 1/4/16 **Time** 1200 **Initials of tester** [illegible]
Model 556 **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.396	11.67	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.80	10.20	4
10	10.34	10.05	10
7	7.04	11.39	7

ORP

ORP	Initial		

YSI Calibration Form
Site Name:

ERM

Date 1/4/17 Time 1205 Initials of tester LK
Model 556 MPS SN 11B101460

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.419	12.71	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.93	11.05	4
~~10~~ 7	6.17	11.76	7
10	10.13	13.41	10

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	160.6	12.66	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	739.1	16.02	~~[illegible]~~ 95.8	100

YSI Calibration Form
Site Name:

ERM

Date 01/05/2017 Time 16 18 Initials of tester ZB
Model 556 MPS SN 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1409	7.67	1417

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
10	10.02	15.46	10.0
4	4.10	17.04	4.0
7	6.95	17.26	6.94

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	240.3	14.87	240.3

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
GOOD	745.1	11.49	103.2	98.1

YSI Calibration Form
Site Name:

ERM

Date 01/05/2017 **Time** 1230 **Initials of tester** MF
Model YSI-556 MPS **SN** 26888

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.456	16.75	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.95	17.96	4.00
10	9.95	17.96	10.00
7	7.03	18.22	7.01

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	239.4	18.44	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	744	14.70	97.1% 9.76	98.1% 9.78

YSI Calibration Form
Site Name:

ERM

Date 1/5/2017 **Time** 1320 **Initials of tester** JR
Model 556 **SN** 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (ms/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1416	17.85	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.12	18.39	4
10	9.96	18.07	10
7	6.98	18.11	7

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	230.3	18.75	

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
good	760	13.33	111.8	100.00

YSI Calibration Form

Site Name:

ERM

Date 01/05/2017 **Time** ~~3~~1530 **Initials of tester** MF

Model 556 MPS **SN** 26888

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.387	18.35	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
10	9.99	18.76	10.00
4	4.03	19.27	4.00
7	6.98	4.79	6.99

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	242.9	17.96	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	745.1	13.22	96.5% 10.48	98.2% 10.69

YSI Calibration Form
Site Name:

ERM

Date 01/05/2017 Time 1700 Initials of tester MF
Model 556 MPS SN 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.415	14.26	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
10	~~16.03~~ MF 9.85	16.03	10.01
4	4.34	15.77	4.00
7	6.91	15.81	6.95

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	238.7	15.25	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	12.76	118.7% 13.17	100.1% 11.19

YSI Calibration Form
Site Name:

ERM

Date 01/05/2017 **Time** 1330 **Initials of tester** ZB
Model 556 MPS **SN** 11B10760

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1421	17.00	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.98	16.21	4.0
7	7.28	17.00	7.0
10	9.99	17.55	~~9.99~~ 10.0

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	236	18.56	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	747.7	15.01	96.8 / 9.56	100.0

YSI Calibration Form
Site Name:

ERM

Date 1/5/17 Time 07:02 Initials of tester CP
Model 556 MPS SN 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1440	12.90	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.03	13.07	4.00
10	10.10	13.32	10.0
7	7.0	13.53	7.0

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	245.1	13.38	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	10.68	99.8	99.9

YSI Calibration Form
Site Name:

ERM

Date 1/5/17 Time 0700 Initials of tester CQ
Model 556 MPS SN 118101760

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1429	13.64	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	5.80	13.21	4.00
10	8.30	13.04	10.0
7	6.57	13.04	6.67

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	243.2	13.04	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	748.4	11.37	105.4	98.5

YSI Calibration Form
Site Name:

ERM

Date 01/05/17 **Time** 1200 **Initials of tester** EL
Model 556MPS **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.458	16.35	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.14	16.91	4.00
10	9.80	16.04	10.00
7	7.05	16.53	7.03

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240.0	228.6	17.16	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	748.7	17.11	87.4% 8.45 mg/L	98.7% 9.49 mg/L

YSI Calibration Form
Site Name:

ERM

Date 01/05/2017 Time 1110 Initials of tester LK
Model 556 MPS SN 18L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1389	15.07	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.27	16.02	4.0
10	10.54	14.62	10.0
7	~~6~~ 7.0	15.43	7.0

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	235.2	15.80	~~235.2~~ 240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	760	16.25	92.2	100

YSI Calibration Form
Site Name: A&P Hoosick Falls

ERM

Date 01/05/16 **Time** 0700 **Initials of tester** EL
Model 556 MPS **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1431	10.99	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.82	10.51	4.01
10	10.17	10.50	10.00
7	7.05	10.56	7.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	248.3	10.92	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	743.3	13.24	112.9% 11.93 mg/L	97.8% 10.30 mg/L

YSI Calibration Form
Site Name:

ERM

Date 1/5/17 **Time** 0700 **Initials of tester** LK
Model 556 MPS **SN** 14F100056

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1.443	12.65	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.99	12.55	4.00
10	9.99	10.70	10.00
7	7.00	10.64	6.99

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	239.9	11.06	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	744.0	9.91	80.3% and 8.86mg/l	97.9% 10.76mg/l

YSI Calibration Form
Site Name:

ERM

Date 01/04/2017 **Time** 0710 **Initials of tester** MP
Model 556 MPS **SN** 26888

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.434	18.61	1.414

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
10	10.00	18.82	10.00
4	4.01	19.92	4.00
7	6.98	19.18	6.99

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	234.5	19.10	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	748.2	18.24	96.4 9.11	99.1 9.31

YSI Calibration Form
Site Name:

ERM

Date 01 / 06 /2017 Time 0711 Initials of tester LK
Model 556 MPS SN 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1386	18.77	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
10	10.15	18.22	10
4	3.75	8.24	4
7	6.89	18.10	6.94

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	235.4	18.54	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	760	17.20	86.4	100

YSI Calibration Form
Site Name:

ERM

Date 1/6/2017 **Time** 07:10 **Initials of tester** ZB
Model 556 MPS **SN** 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1405	16.66	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.04	18.23	4.0
7	6.94	17.82	7.0
10	10.0	18.42	10.0

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	237.0	18.32	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
GOOD	760	16.66	99.5 % 9.80 mg/L	100% 9.87 mg/L

YSI Calibration Form
Site Name:

ERM

Date 1/6/17 **Time** 7:10 **Initials of tester** CP
Model 556 mps **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1430	18.53	1410

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
~~[illegible]~~ 10	~~[illegible]~~ 10.00	18.47	~~[illegible]~~ 10.00
~~[illegible]~~ 4	3.88	19.48	4.00
7	7.03	19.78	7.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	238.4	19.87	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	748.7	17.69	90.2	98.5 9.40

YSI Calibration Form
Site Name:

ERM

Date 01/06/17 **Time** 0700 **Initials of tester** EL
Model 556MPS **SN** 11B101760

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.423	18.54	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.92	18.10	4.01
10	10.14	18.02	10.02
7	6.94	18.42	7.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	255	17.75	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	752.8	16.75	89.5% 8.69 mg/L	99.1% 9.60 mg/L

YSI Calibration Form

Site Name:

ERM

Date 01/06/2017 Time 1245 Initials of tester MF

Model 556 MPS SN 26888

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.370	19.32	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
10	10.00	19.12	10.00
4	4.02	19.04	4.00
7	6.99	19.38	7.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	240.0	19.19	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	749.3	15.30	105.9% 10.62	98.6% 9.87

YSI Calibration Form
Site Name:

ERM

Date 1/6/2017 Time 13.15 Initials of tester ZB
Model 556MPS SN 16A10 4536

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1410	15.73	1410

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.10	16.72	4.0
10	9.92	15.67	10.0
7	6.99 ~~6.99~~ ZB	17.18	7.0

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	240.1	15.17	240.

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
GOOD	760	13.03	100.6	100%

YSI Calibration Form
Site Name:

ERM

Date 01/06/17 **Time** 1318 **Initials of tester** EC
Model 556 MPS **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.389	16.67	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.05	18.85	4.00
10	10.05	18.84	10.00
7	7.06	17.77	7.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	241.6	15.68	240.1

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	748.2	12.40	105.6	98.4%
			11.24	10.40

YSI Calibration Form
Site Name:

ERM

Date 1/10/2017 **Time** 07:00 **Initials of tester** ZB
Model 556MPS **SN** 10A101443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1624	8.30	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.79	7.50	7.0
4 ~~10~~	3.54	8.3	4.0
10 ~~4~~	10.82	8.87	10.0

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	2312.0	8.50	240.1

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
—	760	8.15	106.8	100.2

YSI Calibration Form
Site Name:

ERM

Date 01/10/17 **Time** 0700 **Initials of tester** EC
Model 556MPS **SN** 14F100056

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.403	8.68	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.95	8.41	7.00
10	10.13	9.04	10.02
4	4.03	8.98	4.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240.00	239.8	9.28	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	762.3	9.71	112.6%	100.4
			13.40	11.39

YSI Calibration Form
Site Name:

ERM

Date 1-10-17 **Time** 0700 **Initials of tester** JTS
Model 556 MPS **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1390	8.90	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.76	7.71	7.00
10	10.11	8.92	10.00
4	4.22	8.83	4.04

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	236.8	8.99	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Ok	760.1	1.05	76.4%, 10.80mg/L	100.1%, 14.18mg/L

YSI Calibration Form
Site Name:

ERM

Date 1/10/17 **Time** 658 **Initials of tester** CP
Model 556 **SN** 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1388	8.44	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.88	7.43	7.00
4	4.02	8.89	4.00
10	10.31	9.06	10.05

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	251.9	9.18	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Moist	760	8.7	96.6% 11.15	100.0 11.54

YSI Calibration Form
Site Name:

ERM

Date 1/10/17 **Time** 0700 **Initials of tester** CP
Model 556MPS **SN** 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1401	7.59	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.24	7.35	7.21
4	4.10	8.79	4.00
10	10.32	9.08	10.05

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	250.2	9.36	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Damp	760	8.25	101.4 12.07	100.0 11.85

YSI Calibration Form

Site Name:

ERM

Date 01/09/2017 **Time** 1640 **Initials of tester** MF

Model 556 **SN** 26888

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.377	8.30	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.92	8.25	7.00
10	10.21	7.72	10.00
4	4.27	8.24	4.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240.0	257.5	10.30	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	762.0	10.24	94.9 10.52	100.3 11.10

YSI Calibration Form
Site Name:

ERM

Date 1/9/17 **Time** 15:34 **Initials of tester** CP
Model 556 MPS **SN** 10A101443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1138	2.45	1414

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.31	2.88	4.00
10	8.88	2.48	10.05
7	7.13	4.00	7.09

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	263.5	3.06	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Damp	760	10.69	100.6% 11.15	100.0% 11.07

YSI Calibration Form
Site Name:

ERM

Date 01/04/2014 Time 1245 Initials of tester LK
Model 556 MPS SN 11B101760

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1402	16.43	1412

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.24	14.68	4
10	~~10~~ 7.34	16.84	~~7~~ 9.80 / 10
7	8.89	16.58	6.95

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
248	223	15.41	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
good	753.4	13.39	106.8	99.2

YSI Calibration Form
Site Name:

ERM

Date 01/06/2017 Time 1215 Initials of tester LK
Model 556 MPS SN 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1415	19.36	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.06	19.02	4.0
10	9.91	19.09	10
7	7.06	19.30	7.03

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	238.5	18.98	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	760	16.38	99.5	100

YSI Calibration Form
Site Name:

ERM

Date 1/9/2027 Time 10:22 Initials of tester ZB
Model 556 MPS SN 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1430	14.59	1412

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
~~4~~ 10	9.99	12.86	10.0
~~10~~ 4	4.04	14.75	4.0
~~7~~ 7	6.98	13.84	6.99

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	240.3	15.15	240

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	14.41	90.8	100.4

YSI Calibration Form
Site Name:

ERM

Date 01/09/2017 **Time** 1030 **Initials of tester** MF
Model 556 MPS **SN** 26888

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.443	14.71	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
10	10.03	15.07	10.00
4	4.06	15.00	4.00
7	7.04	15.41	7.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	232.5	15.98	240.1

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	766.3	16.09	100.7 9.96	100.8 9.98

YSI Calibration Form
Site Name:

ERM

Date 1-9-17 **Time** 1030 **Initials of tester** JTS
Model 556 MPS **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1,413	1440	15.52	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.91	14.58	4.00
10	9.88	15.05	10.00
7	7.13	15.07	7.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	~~245~~ 247.5	15.85	~~247.5~~ 240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	764.8	15.13	103.4, 10.37	100.6%, 10.06

YSI Calibration Form
Site Name:

ERM

Date 1/9/2017 **Time** 1130 **Initials of tester** [illegible]
Model 556 **SN** 10A101443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1572	15.89	

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	3.98	16.79	4.0
10	9.69	15.92	10.00
7	7.25	16.34	7.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	238.2	16.70	240.10

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	760	18.87	104.1/9.67	100/9.29

YSI Calibration Form
Site Name:

ERM

Date 1/9/17 **Time** 1145 **Initials of tester** JM
Model 556 **SN** 15L102368

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1446	17.08	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.98	16.24	7.0
4	3.90	16.88	4.0
10	9.95	16.61	10.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240.0	242.9	17.79	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
good	760	18.01	105.3/9.92	100.0/9.46

YSI Calibration Form
Site Name:

ERM

Date 01/09/17 **Time** 1536 **Initials of tester** EC
Model 556MPS **SN** 15L102308

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.379		1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.45	16.98	7.00
4	4.27	17.72	4.00
10	10.48	17.14	10.07

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	237.9	18.48	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	760.00	16.76	105.2 %	100.0 %
			10.20 mg/L	9.67 mg/L

YSI Calibration Form
Site Name:

ERM

Date 01/09/2017 **Time** 1549 **Initials of tester** ZB
Model 556 MPS **SN** 16 A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1397	17.18	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.04	15.99	7.0
10	9.97	17.12	10.0
4	4.02	16.40	4.0

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	236	16.39	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	16.40	110.8	100%

YSI Calibration Form
Site Name:

ERM

Date 1/9/17 **Time** 1641 **Initials of tester** CP
Model 556 mps **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1419	7.60	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
4	4.03	8.10	4.00
10	9.96	8.11	10.0
7	6.97	8.81	6.98

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	255.3	6.62	240.2

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	759.5	4.5	137.8, 18.17	13.15, 100.1

YSI Calibration Form

Site Name:

ERM

Date 1/10/2097 **Time** 10:30 **Initials of tester** ZB

Model 556MPS **SN** 10A101443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1411	15.44	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7.0	7.71	15.74	7.0
10.0	10.0	15.78	10.0
4.0	2.3	15.16	~~4~~ 3.98

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	222.6	14.59	240.1

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
—	760	14.02	109.0	100.4

YSI Calibration Form
Site Name:

ERM

Date 01/10/2017 **Time** 1205 **Initials of tester** MF
Model 556 MPS **SN** 16A104336

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.289	15.96	1.414

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.96	16.66	7.00
10	10.01	16.42	10.00
4	4.20	16.52	4.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	228.3	17.23	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	13.94	102.3 10.59	99.9 10.35

YSI Calibration Form
Site Name:

ERM

Date 01/10/17 **Time** 1200 **Initials of tester** EL
Model 556MPS **SN** 14F100056

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1.413	1.393	16.58	1.413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.94	16.38	7.00
10	10.03	16.40	10.00
4	4.12	16.36	4.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	230.0	17.02	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	761.4	15.46	94.2%	100.1
			9.45	10.03

YSI Calibration Form
Site Name:

ERM

Date 1-10-17 **Time** 1334 **Initials of tester** JTS
Model 556 MPS **SN** ~~[illegible]~~ 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1398	18.23	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.16	17.65	7.00
4	4.03	17.63	4.00
10	10.06	18.33	10.01

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	215.5	19.08	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
OK	759.5	17.42	88.9%, 8.50 mg/l	100.0%, 9.50 mg/l

YSI Calibration Form
Site Name:

ERM

Date 1/10/2017 **Time** 1530 **Initials of tester** ZB
Model 556 MPS **SN** 10 A10 443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1445	18.21	~~1721~~ ZB 1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.42	16.92	7.03
10	10.30	16.69	10.04
4	3.59	16.97	3.99

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	230.9	19.52	240.2

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
	760	16.13	95.3 10.41 mg/l	100.0 10.94 mg/l

YSI Calibration Form

Site Name:

ERM

Date 01/10/17 **Time** 1600 **Initials of tester** EL

Model 556MPS **SN** 14F100056

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1414	19.01	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.94	18.75	7.00
10	10.05	18.54	10.00
4	4.12	18.45	4.02

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240.0	235.7	19.35	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	758.8	17.80	89.6% 8.50 mg/l	99.9% 9.45 mg/l

YSI Calibration Form
Site Name:

ERM

Date 1-10-17 **Time** ~~@~~ 1700 **Initials of tester** JTS
Model 556 MPS **SN** 07F100306

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1412	17.49	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7.0	5.86	17.79	~~7.00~~ 7.09
10.0	~~7.51~~ 9.31	17.71	~~9.96~~ 10
4.0	8.15	8.63	6.75

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	242.8	17.94	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
ok	757.5	8.05	118.7%, 14.06	100%, 11.79mg/L

YSI Calibration Form

Site Name:

ERM

Date 1/10/2017 **Time** 0760 **Initials of tester** ZB

Model 556MPS **SN** 10A10 443

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1353	14.56	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.91	22.00	7.00
10	10.2 ~~21.80~~ 20	21.85	10.02
4	4.39	21.50	4.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	237.6	22.40	240.1

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
—	760	16.69	105.8	100.0

YSI Calibration Form
Site Name:

ERM

Date 01/11/17 **Time** 0700 **Initials of tester** G I
Model 556 MPS **SN** 14F100056

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1427	22.43	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	7.05	20.87	7.00
10	9.99	19.12	10.0
4	4.01	18.80	4.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240.0	235.4	22.03	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	751.1	20.65	100.6%	98.9%

9.03 mg/L 8.89 mg/L

YSI Calibration Form
Site Name:

ERM

Date 01/11/17 Time 1200 Initials of tester SL
Model 556 MPS SN 14F100056

SPECIFIC CONDUCTIVITY

Known Standard (us/cm)	Initial Meter Reading Conductivity (us/cm)	Temperature	Calibrated Final Conductivity (us/cm)
1413	1386	20.59	1413

pH

pH standard (Temp. specific)	Initial Meter Reading pH	Temperature	Calibrated Final pH
7	6.96	20.54	7.00
10	9.97	20.93	10.00
4	4.02	20.90	4.00

ORP

ORP Standard (mV)	Initial ORP Reading (mV)	Temperature	ORP Final Reading
240	239.8	21.24	240.0

DO (% saturation calibration)

Condition of Membrane?	Barometric Pressure (inch Hg)	Temperature	Initial DO Reading (in % and mg/l)	Final/ Saturated DO (in % and mg/l)
Good	754.5	98.6%	98.4	99.8%

8.9 mg/l 9.04 mg/l

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