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January 24, 2011

Mr. John Rashak, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 3
21 South Putt Corners Road
New Paltz, New York 12561-1620

Re: Site Characterization Report
Former PPDLA Facility, Highland, New York
Site Number: 356041

Dear Mr. Rashak:

Pursuant to NYSDEC Order on Consent Index # A3-0639-07010 dated July 29, 2010, please find attached two (2) hard copies of the Site Characterization Report prepared by EnviroGroup Limited for the Former Panasonic Plasma Display Laboratory of America facility located at 180 South Street in Highland, New York (the Site). Please note that because of the sheer volume of the information each copy is accompanied by a CD containing all the laboratory analytical data from the Site Characterization samples.

As we discussed during our last meeting on December 20, 2010, the report shows that a limited number of contaminants were detected at the Site in exceedance of the respective cleanup values (i.e. Unrestricted/Industrial Use SCOs and TOGS). The data indicate localized conditions, most of which appear related to the former apple processing operations at the Site or are likely remnants of completed oil spill remediation projects undertaken at the Site, and do not indicate any threat or significant threat to the environment.

That being said, should the Department recommend re-sampling of the locations exceeding TOGS, to confirm that these contaminants are not a significant threat to the environment, Panasonic will undertake the confirmatory sampling.

Please feel free to contact me with any questions or concerns at (845) 483-0428.

Sincerely,

Everton H. Henriques
President

For Panasonic Corporation of North America, successor to Panasonic Plasma Display Laboratory of America, Inc.

cc: Gary Litwin, NYSDOH
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Site Characterization Report

Former Panasonic Plasma Display Laboratory of America Facility

180 South Street

Highland, New York

Prepared by:

EnviroGroup Limited

Latham, New York

On behalf of:

Panasonic Corporation of North America

Prepared for:

New York State Department of Environmental Conservation

New Paltz, New York

January 24, 2011

Project No. PL-0637

EnviroGroup Limited

The environmental solutions company

Site Characterization Report

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Prepared by	01/24/2011 Date
Reviewed by	01/24/2011 Date
Approved by	01/24/2011 Date

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1 INTRODUCTION

This report presents the results of the site characterization that was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Site Characterization Work Plan, Former Panasonic Plasma Display Laboratory of America Facility (Work Plan) (EnviroGroup, 2010) at the Former Panasonic Plasma Display Laboratory of America (PPDLA) facility property in Highland, New York (the Site). The purpose and objectives of this site characterization and a summary of the Site conditions are presented below. A history of the Site is provided in Section 2 followed by a discussion of the field investigation procedures in Section 3. Sections 4 and 5 present the investigation results, while Section 6 provides the conclusions. A list of references is provided in Section 7.

1.1 PURPOSE

The Site Characterization was implemented to fill remaining, previously identified data gaps regarding the nature and extent of potential environmental contamination in the surface and subsurface soils, groundwater, surface water, and sediment at the Site and to assess the potential impacts to human health and the environment from this contamination, if any. Based on the historic use of the Site and data collected, the Site Characterization was also implemented to further investigate and characterize subsurface conditions (i.e. groundwater flow direction, depth to bedrock surface, overburden geology). In concert with results of the previous investigations, the findings of the Site Characterization have been used to:

- Evaluate if the Site meets the criteria for implementation of a remedial program pursuant to Environmental Conservation Law (ECL) Section 27-1313.3;
- Assess key Site hydrogeologic factors (e.g., depth to saturated zone and hydrologic gradients);
- Assess the potential extent of contaminant migration, if any, and whether potential future migration may pose a threat to human health or the environment; and
- Evaluate the extent to which contaminant levels pose an unacceptable risk to public health and the environment.

2 SITE DESCRIPTION AND BACKGROUND

The Site is an irregular-shaped parcel of land located on the east side of South Street (180 South Street), approximately 1.4 miles south of the intersection of South Street and Route 299 in the Town of Lloyd, located in Highland, Ulster County, New York. As shown on Figure 1 and depicted on the Site Plan (Figure 2), it is comprised of one approximately 6.49 acre tax lot identified on the Town of Lloyd tax map as Section 87.3, Block 5, Lot 14. The Site's septic system leach field is located on approximately one acre of land south of the Site owned by Mr. Charles Andola, but maintained by the Site property owner via a permanent easement.

As discussed below, the Site is located in an agricultural area and has had different manufacturing uses.

2.1 SITE TOPOGRAPHY AND GEOLOGY

The Site is located on a terrace on the east side of the Swartekill Creek valley. The topography at the Site is relatively flat with a gradual downward slope to the east towards Black Creek. A review of the United States Geologic Survey (USGS) Topographic Map (Clintondale, New York Quadrangle) indicates that the surface elevation of Site is approximately 420 feet above mean sea level (amsl) (Figure 1). Survey data collected during the Site Characterization confirms the Site elevation ranges from a high of approximately 419 feet amsl along South Street, to a low of approximately 410 feet amsl along Black Creek.

A review of the Surficial Geologic Map of New York (Lower Hudson Sheet, 1989) indicates that surficial soils in the area of the Site are till of variable texture and recent deposits, generally confined to floodplains, within a valley. The United States Department of Agriculture Soil Conservation Service's Soil Survey of Ulster County, New York indicates that the soils at the Site are composed of Volusia gravelly silt loam, with zero to three percent slopes. Soils in this classification are described as deep, nearly level, somewhat poorly drained soil formed in glacial till. Soils encountered during the Site Characterization, from grade to the top of bedrock surface, consisted of light brown and grayish brown, fine-grained sands and silts and trace amounts of gravel.

Bedrock in the area of the Site is greater than 60 inches below grade according to the above-referenced Soil Survey and Surficial Geologic Map. The bedrock surface was encountered at varying depths ranging from approximately 13 feet below ground surface (bgs) to 37 feet bgs during this investigation. The bedrock in the area of the Site is described on the Geologic Map of New York (Lower Hudson Sheet, 1970) as Middle Ordovician-aged rocks of the Normanskill Formation consisting of shale, argillite and siltstone. Bedrock samples were not collected as part of this investigation.

Black Creek flows in a northerly direction and abuts the eastern property boundary. No additional surface water bodies have been identified on the Site property. In addition to Black Creek, a large wetland area is located in a drainage area approximately 2,000 feet to the east and the Swartekill Creek is located 3,200 feet west of the Site.

Overburden and shallow bedrock groundwater flow contour maps are presented as Figures 3 and 4. Based on available information, including area topography and water levels measured in Site wells, overburden and shallow bedrock groundwater flow at the area of the Site is easterly to northeasterly towards Black Creek. However, the regional flow direction may vary from this direction due to local geologic conditions. Deeper bedrock groundwater may flow in a west to northwesterly direction, toward Swartekill Creek.

2.2 SITE HISTORY

The original portion of the Site building was reportedly developed in the 1950s and first used as an apple processing facility known as Costa Apple Products. Based on a review of available information, several additions have been made to the original structure since the 1950s.

The Site was used as an apple processing facility prior to 1987, when Plasmaco began leasing the property. The apple processing facility discharged process wastewater (apple wash water) through floor drains into two approximately 10,000 gallon underground storage tanks (USTs) located northeast of the Site building. The wastewater from these USTs was reportedly emptied periodically and used to irrigate nearby apple orchards. These wastewater USTs were removed in 1989 when Plasmaco purchased the Site.

Records indicate that one or two waste lagoons were also located in the area of the above referenced wastewater USTs. According to a former Plasmaco employee (conversation with

E. Henriques), it was assumed that these lagoons were used to contain apple process wastewater until the time when the wastewater USTs were installed. These lagoons were backfilled prior to the late 1980s.

Prior to commencing its operations in the Site building, Plasmaco converted the Site building into a manufacturing facility. The renovations included: sealing of all floor drains, updating the septic system, and installation of clean room space. Plasmaco was purchased, by Matsushita Electric Industrial Co. LTD. (MEI) in 1996. In 2005 Plasmaco's name was changed to Panasonic Plasma Display Laboratory of America, Inc.

Plasmaco manufactured monochrome plasma displays and later developed color technology at the Site. PPDLA's efforts were focused on research and development for the development of large area color plasma displays with limited prototype manufacturing of the 61-inch HD color plasma television. Operations included various processes associated with the production of plasma display front panels and included: glass cutting, chromium and copper sputtering, electrode fabrication through a photolithography and subtractive etching process, screen printing of dielectric glass to protect the electrodes, sputtering of magnesium oxide ((MgO) used to provide secondary electron emission, assembly of the front plate and back plate (manufactured off-site) and backfilling the space between the panels with a neon and xenon gas mixture. The facility used caustics, acids, and solvents. From 1988 until 1996 tetrachloroethylene (PCE) and Propaklone, containing 1,1,1-trichloroethane (TCA), was used to clean screens and electronics boards, respectively. The locations of these two cleaning areas and equipment are shown on Figure 2.

During Plasmaco's and later PPDLA's operation of the Site, the following three waste streams were generated.

1. Sanitary waste (toilets, bathroom and kitchen sinks) was discharged to the septic system and leach field south of the Site building. As noted above, the septic system was updated after MEI acquired Plasmaco.

2. Process wastewater from etching, cleaning and wet sanding was collected and containerized in drums at first, and then later in large indoor above ground tanks for pretreatment prior to disposal of the pre-treated wastewater at the Town of Lloyd publicly owned treatment works (POTW).

3. Hazardous waste including wastewater precipitate, spent solvents, caustics, acids, and lead contaminated wipes were collected and stored in drums and 300 gallon plastic totes prior to off-site disposal by Clean Harbors of Braintree, Massachusetts or General Chemical Corporation of Framingham, Massachusetts.

Prism Solar Technologies (Prism) purchased the Site from PPDLA in March, 2009 and is in the process of converting areas of the building to be used for manufacturing of solar panels. As of the date of this report, we understand that only general office activities and prototype work are conducted at the Site.

2.3 PREVIOUS INVESTIGATIONS

There were eight previous environmental investigations conducted at the Site including:

- Environmental Assessment for SAM Properties, 1989
- Phase I Report, 1995
- Buried Vehicle Spill Number Documentation, 1998
- Southwest Area Petroleum Spill Remediation, 2004
- Due Diligence Soil and Groundwater Laboratory Data, October, 2008
- Due Diligence Soil and Groundwater Laboratory Data, January and February, 2009
- Vapor Intrusion Sampling Results, April, 2009
- Remedial Action Spill Closure Report, December, 2009

A summary of these investigations is presented in the Work Plan (EnviroGroup, 2010). A summary of the soil and groundwater analytical results obtained from these previous investigations is provided in Appendix A.

As part of the southwestern area petroleum spill investigation and remediation activities conducted in the late 1990s, three overburden monitoring wells (MW-2, MW-3, and MW-6) were installed. Three bedrock wells (Domestic Well, Process Well, and Front Yard Well) were installed prior to 1987.

At present, the Domestic Well is in use and is connected to all toilets, and “non-process related” sinks in the facility. Bottled water is used for drinking water. The Process Well is currently in use and supplies the de-ionized water (DIW) system. The DIW system is fully

functional, but the only current use is for humidification of the clean-rooms. A majority of the DIW system is legacy plumbing for process by the previous owner (PPDLA). The Front Yard well has been disconnected and is not in use. Drawings of the Domestic and Process water piping are included in Appendix B.

2.4 POTENTIAL CONTAMINANTS OF CONCERN

Due to the many different operations conducted at the Site over its 60 year history, the soil, groundwater, sediment, and surface water at the Site could be impacted by organics, metals, pesticides, and polychlorinated biphenyls.

3 FIELD INVESTIGATION PROCEDURES

This section presents the field procedures used to assess the soil, groundwater, surface water, and sediment at the Site. All work was performed in accordance with the applicable portions Work Plan (EnviroGroup, 2010).

The investigation included: drilling 16 soil borings; installation of 11 groundwater monitoring wells; and collection of 12 soil samples from subsurface soils and fill materials, 14 groundwater samples, four surface water samples, and four sediment samples from selected location at the Site. Sampling locations are presented on Figure 5. Table 1 provides a summary of samples collected during the Site Characterization.

3.1 SOIL INVESTIGATION

A soil sample was collected from five locations beneath the Site building: three locations (ISB-01, ISB-04, and ISB-05) where, in accordance with the New York State Department of Health (NYSDOH) Vapor Intrusion Guidance (NYSDOH, 2006), mitigation would have been recommended to prevent the concentration of VOCs in the sub-slab vapor from impacting the indoor air quality; one location (ISB-02), where an elevated concentration of Freon 12 was detected in sub-slab vapor; and one location near the former 1,1,1-TCA degreaser location (ISB-03).

A soil sample was also collected from each of the seven exterior borehole locations (SC-01 through SC-07). The exterior borehole locations included the septic tank area, the upgradient area, near the back plate building (Former Lagoon Area), and the area along the down gradient property boundary. Boreholes were advanced by drilling subcontractor C2G Environmental Consultants, LLC (C2G) under the oversight of EnviroGroup personnel.

3.1.1 Soil Collection and Analysis

Soil cores from beneath the building were collected by driving a macrocore sampler equipped with an acetate sleeve, using an electric jackhammer, to a total depth of 1 to 3 feet bgs. Soil cores from the exterior soil borings were collected using a direct push (Geoprobe®) drill rig with a macrocore sampler equipped with acetate sleeves, pushed to sampler refusal (13 to 37 feet bgs). Soil samples were collected from the ground surface or the bottom of the slab to the total depth of each borehole (bedrock surface, or sampler

refusal) to the extent recoverable. Soil lithologies were continuously logged to the total depth of the borehole by an experienced EnviroGroup geologist. Borehole logs are provided in Appendix C. A photoionization detector (PID) organic vapor analyzer was used as a field screening tool to measure for the presence of organic vapors in soils at each borehole.

All soil samples collected, one per boring, were sent to Test America Laboratory of Amherst, New York (TestAmerica) for analysis. The depth interval of each soil boring that, in the judgment of the field geologist, was likely to be most contaminated based on field observation was selected for laboratory analysis. Since no signs of contamination (PID readings, odors, stains, etc.) were evident, the samples were collected from the depth interval most likely to be impacted based on the nature of the potential source and compound of concern[1], or from the middle of the cored interval. The remaining soil core was managed as investigation derived waste (see Section 3.4).

The soil samples collected were analyzed as follows:

- All samples from beneath the building (ISB-01 through ISB-05) were analyzed for TCL VOCs via EPA Method 8260b.
- All samples from the exterior soil boring (SC-01 through SC-07) were analyzed for TCL VOCs via EPA Method 8260C, TCL SVOCs via EPA Method 8270C, and TAL Metals via EPA Method 6010.
- Soil samples from the three monitoring well soil borings (SC-01, SC-06, and SC-07) along the eastern edge of the Site were also analyzed for pesticides via EPA Method 8081A in addition to the analyses referenced above.
- The soil sample from the soil boring near the septic system (SC-02) was also analyzed for PCBs via EPA Method 8082.

Soil samples submitted for laboratory analysis were placed into laboratory-supplied containers, labeled, logged onto chain of custody documents, and stored on ice for submittal to TestAmerica.

[1] Shallow soil samples may be most appropriate for surface sources of metals with limited leaching potential, whereas capillary zone (if encountered) soil samples may be most appropriate for LNAPL sources.

3.2 GROUNDWATER INVESTIGATION

Upon completion of borehole advancement, the seven exterior soil boreholes were completed as monitoring wells. Four well pairs (i.e., overburden and bedrock) were installed within separate boreholes to evaluate the vertical groundwater profile and shallow bedrock groundwater conditions at locations shown on Figure 5. One well pair was installed in each of the following locations; near Black Creek (and downgradient of the Site building; SC-07 and SC-07B), near the Back Plate building in the vicinity of the former lagoons (SC-06 and SC-06B), and in two upgradient locations (SC-03, SC-03B, SC-04, and SC-04B) along South Street. Three boreholes (SC-01, SC-02, and SC-05) were completed as shallow monitoring wells to evaluate shallow groundwater flow directions and fill data gaps left by previous environmental investigations, including a downgradient location with respect to shallow groundwater flow of the septic system.

3.2.1 Well Construction

Overburden monitoring wells were constructed within the hollow stem augers and bedrock wells were completed as open boreholes with overburden casings to allow for collection of groundwater samples. Boreholes for the overburden (i.e., shallow) monitoring wells were advanced from ground surface to the top of the bedrock surface in unconsolidated deposits using a combination direct push/hollow stem auger drill rig at locations shown on Figure 5.

Soil lithologies were logged from ground surface to the total depth of each borehole based on evaluation of soil cores. A monitoring well was installed within the upper saturated section of each borehole. These wells were screened at or near the apparent water table at the time of drilling, with screened intervals of 5 to 10 feet**.**

Overburden monitoring wells were constructed with two inch inside diameter (ID), schedule 40 flush joint threaded PVC materials with 0.010 inch screen slots with the exception of well SC-05 which was constructed with 1 inch ID PVC due to subsurface obstructions. An appropriate sized (i.e. 10/20 sieve) washed silica sand pack was placed in the annulus of each borehole to a level of approximately two feet above the top of the screen interval. Following installation of the filter material, a bentonite seal (bentonite chips) was placed on top of the filter material to a minimum thickness of two feet. Due to the relatively shallow water table at well SC-05, the thickness of bentonite seal above the filter pack was approximately one foot. Distilled water was added to ensure proper hydration of the bentonite. Each

overburden monitoring well was completed with a locking cap and flush-mount protective surface casing.

Four boreholes (SC-03B, SC-04B, SC-06B, and SC-07B) were completed as shallow bedrock monitoring wells. The objective of the shallow bedrock wells was to assess the upper portion of the bedrock aquifer. Visible evidence of contamination (i.e. odors, stains, sheens) was not observed during drilling of the bedrock wells. Construction of these wells was conducted by initially drilling through the overburden using hollow stem augers to the bedrock surface. Soil samples were not collected from these borings as samples were collected from the adjacent paired overburden wells. Next, an approximately two foot long bedrock socket was advanced using nominal six inch diameter wash rotary tools. A four inch ID steel casing was then grouted in place within the rock socket. A minimum of 24 hours was allotted for grout to cure prior to resuming drilling. Subsequent to allowing grout to cure, a nominal four inch diameter open hole interval was advanced to a minimum of 10 feet below the bottom of the steel casing using wash rotary drilling methods. Each bedrock monitoring well was flushed with clean water and completed with a flush-mount protective casing.

3.2.2 Well Development and Groundwater Sampling

New monitoring wells were developed by surging the water column with a disposable bailer or pump to suspend fine particles of sediment so that they could be removed by subsequent bailing or pumping. Surging was repeated throughout well development in an effort to flush the fine particles from the sand filter surrounding the well screen or the borehole walls in the case of the bedrock wells. Development continued by purging water from the well using a disposable bailer or pump. Three to ten wetted casing volumes (i.e., the volume of groundwater standing in the casing under steady-state conditions) of water were removed from each well. Well development field sheets are presented in Appendix D.

Upon completion of monitor well development activities, new wells were allowed to rest at least two weeks to recharge to static conditions prior to groundwater sampling. Groundwater samples were collected from each new monitoring well and from the three existing wells on-site (i.e., Front Yard Well, Process Well, and Domestic Well). Groundwater samples were collected from the new wells and Front Yard Well using Low-Flow Purge (LFP) methods and dedicated disposable Teflon lined tubing. This method relies on the removal of groundwater at a rate similar to the well's rate of recharge (i.e., the groundwater column

height during pumping) should not vary more than approximately 10 percent from its steady-state condition or by keeping the drawdown at a minimal level (e.g., 0.33 feet); and is documented in the EPA's Groundwater Sampling Guidelines for Superfund and RCRA Project Managers (Yeskis, D. and Zavala, B, 2002). Overburden wells were sampled using a peristaltic pump, while the bedrock wells were sampled using a submersible (Grundfos®) pump. Minimal drawdown was achieved at each of the new wells with the exception of wells SC-03B and SC-05. The recharge rate on these wells was less than 200 milliliters per minute, and as such, these wells were purged dry. Subsequent to recharging, groundwater samples were collected from these wells.

Groundwater samples from the Process Well, and Domestic Well were collected from the closest associated tap location. Prior to sampling, a Prism representative directed the sampling team to the nearest spigot for each well. A hose was attached to each spigot and allowed to run for approximately five minutes (i.e., to purge the line and draw in representative groundwater). Following purging, water samples were collected by placing the laboratory-provided sample containers directly under the tap location for the Domestic Well. The water sample was collected from the Process Well tap via a short section of Teflon lined tubing since the tap location was too close to the floor to allow filling directly from the tap.

Field water quality parameters (pH, temperature, specific conductance, oxidation-reduction potential, and dissolved oxygen) were measured using a flow-through cell during low flow purging. Once three successive readings of two or more field water quality parameters stabilized, sampling began. Samples were collected directly from the discharge port of the pump prior to passing through the flow cell. For the Process Well and Domestic Well, field water quality parameters were measured ex-situ during sample collection.

Groundwater samples were collected and placed into laboratory-supplied containers, labeled, logged onto chain of custody documents, and stored on ice for submittal to TestAmerica, Inc. Amherst, New York. Groundwater samples from each new monitoring well were submitted for analysis of TCL VOCs via EPA Method 8260b. Groundwater samples collected from the Front Yard, Process, and Domestic wells were submitted for analysis of VOCs via EPA Method 524.2. In addition, samples from each new monitoring well were submitted for analysis of SVOCs via EPA Method 8270c, and TAL Metals via EPA Method 6010 and the groundwater samples collected from the monitoring wells in the vicinity of the Former

Lagoon Area (SC-06; SC-06B; SC-07; and SC-07B) were submitted for analysis of pesticides via EPA Method 8081. Furthermore, the groundwater sample from the new monitoring well near the septic field (SC-02) was submitted for analysis of PCBs via EPA Method 8082.

3.2.3 Groundwater Flow Direction

The ground surface elevation and top of casing elevation of the new groundwater monitor wells were surveyed by a New York licensed surveyor under subcontract to EnviroGroup. Groundwater levels were measured in each monitoring well after they had equilibrated from well development activities. Water levels were interpolated to develop a representation of overburden and shallow bedrock water tables and to assess shallow and groundwater flow directions. Groundwater flow maps for both the overburden and shallow bedrock aquifers are presented as Figures 3 and 4, respectively. As noted on Figures 3 and 4, the general groundwater flow direction in both the overburden and shallow bedrock aquifers is to the east.

3.3 BLACK CREEK RECONNAISSANCE AND SURFACE WATER AND SEDIMENT SAMPLE COLLECTION

Prior to the collection of any surface water or sediment samples, Prism, a Panasonic representative, EnviroGroup field personnel, and an NYSDEC representative conducted a reconnaissance of the Black Creek located along the eastern property boundary of the Site. Observations were focused on noting any evidence of human activity in the vicinity of the creek, any drainage swales leading to the creek, and any wastewater or storm water pipes discharging to the creek. A sample was collected from the accumulated surface water beneath an observed liquid discharge (outfall pipe) and adjacent sediments (SED/SW-02, discussed below).

Subsequent to reconnaissance activities, four surface water (SW-01 through SW-04) and four sediment samples (SED-01 through SED-04) were collected from the following four locations along and nearby the Black Creek to assess the condition of surface water and sediment adjacent to the Site:

- SW/SED-01 at the upstream end of the Site;

- SW/SED-04 at the downstream end of the Site;
- SW/SED-03 approximately half the distance between the upstream and the downstream samples; and
- SW/SED-02 from the area of a discharge pipe noted during a Site walk with NYSDEC personnel on July 16, 2010, approximately 10 feet west of Black Creek.

Surface water and sediment sample locations are presented on Figure 5.

Surface water and sediment samples were collected starting with the furthest downstream location along the eastern property boundary, and working sequentially upstream. At each location, the surface water sample was collected first, followed by the sediment sample.

Surface water samples were collected by direct fill methods from one to two feet off the adjacent bank and from a depth of approximately one foot below the water surface using a freshly-gloved hand. Sediment samples were collected from the upper two inches of sediment at the same location. Surface water samples were collected directly into laboratory–supplied containers and the sediment samples were collected using a clean hand tool (i.e., hand auger or clean acetate liner) and immediately transferred into laboratory-supplied containers. Samples were labeled, logged onto chain of custody documents, and stored on ice for submittal to TestAmerica Laboratory, Amherst, New York for analysis of TCL VOCs via EPA Method 8260b, TCL SVOCs via EPA Method 8270c, TAL Metals via EPA Method 6010, PCBs via EPA Method 8082, and pesticides via EPA Method 8081.

3.4 DECONTAMINATION AND MANAGEMENT OF INVESTIGATION DERIVED WASTES

To ensure that soil, groundwater, surface water, and sediment samples were representative of natural conditions, drilling and sampling equipment was decontaminated prior to first use and between each borehole location. Decontamination of investigative equipment was conducted in accordance with applicable EnviroGroup Standard Operating Procedures (SOPs) provided in the Work Plan (EnviroGroup, 2010).

Drill cuttings, drilling fluids, development water, purge water, and decontamination fluids generated during the investigation were drummed, labeled and inventoried for management by Panasonic and Prism.

Panasonic and Prism contracted a waste disposal sub-contractor (C2G) to remove all IDW related to the Site Characterization from the Site on December 9, 2010. The liquid IDW went to Paradise Heating Oil in Ossining, New York. The solid IDW went to Deep Green of New York, LLC in New Windsor, New York. Waste Manifests are provided in Appendix E.

4 INVESTIGATION RESULTS

The following section presents and discusses the analytical results of the soil, groundwater sediment, and surface water samples collected during the Site Characterization field work.

4.1 SOIL INVESTIGATION

As discussed in Section 3.1, sub-surface soil samples were collected from boreholes advanced at the Site. The following sections summarize the results for soil investigation activities. Laboratory analytical results are presented in Appendix F (on compact disc). Analytical data validation documentation is provided in Appendix G.

4.1.1 Subsurface Conditions

Soils encountered from grade to the top of bedrock surface consisted of light brown and grayish brown, fine-grained sands and silts and trace amounts of gravel. The bedrock surface was encountered at varying depths ranging from approximately 13 feet bgs at borehole SC-05 to 37 feet bgs at borehole SC-01. Site stratigraphy and lithologic descriptions were inferred based on observations of soil samples collected from the boreholes drilled during this investigation. It should be noted that conditions likely vary between and beyond borehole locations. Detailed lithologic information is provided in borehole logs, which are included in Appendix C.

The bedrock section of each borehole was drilled using wash rotary drilling methods. As such, core samples of bedrock were not collected. However, drill cuttings of bedrock were noted to be dark grey shale fragments.

No odors, staining, or elevated PID readings were observed during drilling activities.

4.1.2 Soil Sample Results

The soil sample results were compared to NYSDEC Sub-Part 375-6 Remedial Program Soil Cleanup Objectives (SCOs) for both Unrestricted Use (as required by NYSDEC) and Industrial Use (current and expected future use of Site). Field quality control (QC) samples were collected during this investigation as required in the approved Work Plan. Field QC requirements included the collection of one duplicate sample for every ten samples collected and the collection of a minimum of one trip blank per each sampling event involving VOCs.

4.1.2.1 Comparison of Soil Sample Results to SCOs

As shown on Tables 2 through 5 and discussed below, some COCs were detected in the soil samples at concentrations above their respective unrestricted and industrial use SCOs.

VOCs

Acetone was detected in soil sample SC-06 (5-7') at a concentration of 200 µg/kg which is above the Unrestricted Use SCO of 50 µg/kg. No other VOCs were detected in soil samples at concentrations exceeding the Unrestricted Use SCOs during this investigation. No VOCs were detected at concentrations exceeding the Industrial Use SCOs.

SVOCs

No SVOCs were detected in soil samples at concentrations exceeding the Unrestricted Use or Industrial SCOs during this investigation.

Pesticides

As presented below, some pesticides were detected above their respective Unrestricted Use SCO; however no pesticides were detected at concentrations exceeding their Industrial Use SCOs during this investigation. The detections of these pesticides in soil samples are likely due to remnants of historical use of the property as an apple processing facility.

- 4,4'-DDD and 4,4'-DDE were detected at in each of the three soil samples (SC-01 (2-4'), 20 and 51 µg/kg; SC-06 (5-7') 75 and 120 µg/kg; and SC-07 (2-4') 3.9 and 5.1 µg/kg) and the duplicate sample (SC-06 (5-7') DUP 58 and 99 µg/kg) at concentrations exceeding the Unrestricted Use SCO of 3.3 µg/kg for these compounds.

- 4,4'-DDT was detected in soil samples SC-01 (2-4') (9.7 µg/kg); SC-06 (5-7') (17 µg/kg); and duplicate sample SC-06 (5-7') DUP (15 µg/kg) which exceed the Unrestricted Use SCO of 3.3 µg/kg for this compound.

- Dieldrin was detected in soil samples SC-01 (2-4') (147 µg/kg); SC-06 (5-7') (20 µg/kg); and duplicate sample SC-06 (5-7') DUP (15 µg/kg) which exceeds the Unrestricted Use SCO of 5 µg/kg for this compound.

- The reporting limit (43 µg/kg) for endrin for sample SC-06 (5-7') was greater than the Unrestricted Use SCO of 14 µg/kg for this compound.

Metals

Five metals were detected in some soil samples at concentrations that exceeded their Unrestricted Use SCO. As presented below, one of these metals (arsenic) was also detected in a soil sample at a concentration that also exceeded its Industrial Use SCO. The detection of arsenic is likely due to remnants of historical use of the property as an apple processing facility.

- Arsenic was detected in soil sample SC-02 (3-5') at a concentration of 16.6 mg/kg which is above its Unrestricted and marginally above Industrial Use SCOs of 13 mg/kg and 16 mg/kg, respectively.

- Chromium was detected in each soil sample (SC-01 (2-4') (21.6 mg/kg); SC-02 (3-5') (17.1 mg/kg); SC-03 (3-5') (15.7 mg/kg); SC-04 (6-8') (16.7 mg/kg); SC-05 (8-10') (11.2 mg/kg); SC-06 (5-7') (13.0 mg/kg); and SC-07 (2-4') (18.7 mg/kg), and in duplicate sample SC-05 (9-10') DUP 12.8 mg/kg which are above the Unrestricted Use SCO of 1.0 mg/kg. The Unrestricted Use SCO for chromium represents the lower of the values for hexavalent (1.0 mg/kg) and trivalent (30 mg/kg) chromium. Chromium was not speciated; therefore the more stringent comparison value was used.

- Manganese was detected in soil sample SC-06 (5-7') at a concentration of 1,870 mg/kg which is above the Unrestricted Use SCO of 1,600 mg/kg for this compound.

- Nickel was detected in soil sample SC-04 (6-8') at a concentration of 33.7 mg/kg which is above the Unrestricted Use SCO of 30 mg/kg for this compound.

- Zinc was detected in duplicate soil sample SC-05 (8-10') DUP at a concentration of 116 mg/kg which is above the Unrestricted Use SCO of 109 mg/kg.

With the exception of chromium and arsenic, all of the metals exceedances of the Unrestricted Use SCOs were marginal, and likely in line with area background concentrations rather than attributable to historic or current Site use. As noted above, chromium was not speciated; therefore the more stringent comparison value was used.

PCBs in Soil

No PCBs were detected in soil samples at concentrations exceeding the Unrestricted or Industrial Use SCOs during this investigation.

4.2 GROUNDWATER INVESTIGATION

The groundwater investigation included measuring water levels at all accessible monitoring wells, collecting samples for analysis of various water quality parameters. The following section of the report summarizes the results for groundwater investigation activities.

4.2.1 Groundwater Level Measurements

A record of groundwater level measurements is provided in Table 6. Groundwater elevations measured from overburden and bedrock monitoring wells on October 25 and 26, 2010. These elevations were contoured to assess groundwater flow direction, as shown on Figures 3 and 4, respectively. Groundwater flow directions vary on and through the Site. The potentiometric mapping indicates that groundwater flow directions are largely influenced by local topography and that both overburden and shallow bedrock groundwater beneath the Site flows to the east.

4.2.2 Field Groundwater Quality Measurements

Field water quality parameters were measured in groundwater samples collected during the October, 2010 sampling event. Field water quality parameters included temperature, specific conductivity, pH, oxidation/reduction potential (ORP), dissolved oxygen (DO), and turbidity. The field water quality parameters are provided in Appendix H.

4.2.3 Groundwater Analytical Results

Groundwater samples collected as part of this investigation were analyzed for a variety of analytical parameters as described in Section 3.2.2. A summary of detected compounds is presented in Tables 7 through 10. The following section provides a general summary of the groundwater analytical results for the October 2010 sampling event.

4.2.3.1 Comparison of Groundwater Sample Results to TOGS

The groundwater sample results were compared to NYSDEC Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998 Edition. Field quality control (QC) samples were collected during this investigation as required in the approved Work Plan. Field QC requirements included the collection of one duplicate sample for every 20 samples collected and the collection of a minimum of one trip blank per each sampling event involving VOCs.

VOCs

Only two VOCs were detected in groundwater samples at concentrations exceeding the TOGS values during this investigation:

- Acetone was detected in well SC-01 at a concentration of 73 µg/l which is greater than the TOGS value of 50 µg/l for this compound; and
- Benzene was detected in well SC-02 at a concentration of 2.2 µg/l, which is greater than the TOGS value of 1 µg/l for this compound.

SVOCs

Phenol was the only SVOC detected in a groundwater sample at a concentration that exceeded its respective TOGS values. It was detected in well SC-03B at a concentration of 27 µg/l, which is greater than the TOGS value of 1 µg/l for this compound.

Pesticides

No pesticides were detected in groundwater samples at concentrations exceeding the TOGS values during this investigation.

Metals

Aluminum, iron, magnesium, manganese, selenium, and sodium were detected in one or more groundwater sample at concentrations exceeding the respective TOGS values. None of the exceedances are greater than one order of magnitude of the TOGS values with the exception of all sample results for iron, and one (SC-01) sample result for manganese. It

should be noted that groundwater sample results represent total metal concentrations, which includes any particulate or colloidal material in the sample. Dissolved (filtered) metals samples for groundwater were not analyzed as part of this investigation.

No other metals were detected in groundwater samples at concentrations exceeding the TOGS values during this investigation.

PCBs

No PCBs were detected in groundwater samples at concentrations exceeding the TOGS values during this investigation.

4.3 BLACK CREEK SEDIMENT INVESTIGATION

4.3.1 Black Creek Reconnaissance

A reconnaissance of the Black Creek adjacent to the Site was conducted by Prism, Panasonic, NYSDEC, and EnviroGroup personnel on September 15, 2010. No evidence of significant human activity was noted during the reconnaissance. An outfall pipe was identified during the July 16, 2010 Site visit with NYSDEC. Sediment and surface water samples SED/SW-02 were collected near this pipe. According to a Panasonic representative, this outfall pipe drains surface water underground from another property on the west side of South Street to the outfall location approximately 10 feet west of Black Creek.

4.3.2 Comparison of Sediment Sample Results to SCOs

The sediment sample results were compared to NYSDEC Sub-Part 375-6 Remedial Program SCOs for both Unrestricted Use (as required by NYSDEC) and Industrial Use which is the current and expected future use of Site. Field quality control (QC) samples were collected during this investigation as required in the approved Work Plan. Field QC requirements included the collection of one duplicate, one matrix spike/matrix spike duplicate, and one field blank sample for every 20 samples collected and the collection of a minimum of one trip blank per each sampling event involving VOCs. A summary of detected compounds in sediment results are presented in Tables 11 through14 and discussed below.

4.3.2.1 VOCs

Acetone was the only VOC detected in the sediment samples at a concentration exceeding its respective Unrestricted Use SCO (50 µg/kg) during this investigation. It was detected in two sample locations (SED-01 and SED-02) at concentrations of 120 µg/kg and 66 µg/kg, respectively, and duplicate sample SED-02 DUP at a concentration of 72µg/kg

No VOCs were detected in sediment at concentrations exceeding their Industrial Use SCOs during this investigation.

4.3.2.2 SVOCs in Sediment

As presented below, six SVOCs were detected in sediment sample SED-02 and duplicate sample SED-02 DUP at concentrations exceeding their respective Unrestricted Use SCOs. However, only two of these six SVOCs were detected at concentrations exceeding their respective Industrial Use SCOs. As stated previously, sample location SED-02 was not located within the Black Creek, but from below the discharge pipe which drains surface water underground from another property on the west side of South Street to the outfall location approximately 10 feet west of Black Creek.

- Benzo(a)anthracene (Unrestricted Use SCO: 1,000 µg/kg):
  - SED-02 - 5,400 µg/kg (estimated)
  - SED-02 DUP - 5,400 µg/kg (estimated)
- Benzo(a)pyrene (Unrestricted Use SCO: 1,000 µg/kg; Industrial Use SCO: 1,100 µg/kg):
  - SED-02 - 6,600 µg/kg (estimated)
  - SED-02 DUP - 5,600 µg/kg (estimated)
- Benzo(b)fluoranthene (Unrestricted Use SCO: 1,000 µg/kg):
  - SED-02 - 8,600 µg/kg (estimated)
  - SED-02 DUP - 7,600 µg/kg (estimated)
- Benzo(k)fluoranthene (Unrestricted Use SCO: 800 µg/kg):
  - SED-02 - 2,800 µg/kg (estimated)
  - SED-02 DUP - 2,500 µg/kg (estimated)
- Chrysene (Unrestricted Use SCO: 1,000 µg/kg):
  - SED-02 - 8,400 µg/kg (estimated)
  - SED-02 DUP - 6,400 µg/kg (estimated)

- Indeno(1,2,3-cd)pyrene (Unrestricted Use SCO: 500 µg/kg; Industrial Use SCO: 11,000 µg/kg):
    - SED-02 - 37,000 µg/kg
    - SED-02 DUP - 30,000 µg/kg

Naphthalene was not detected in samples SED-02 and SED-02 DUP. However, the laboratory reporting limit for naphthalene in these was 20,000 µg/kg and 16,000 µg/kg respectively, which are greater than the Unrestricted Use SCO for naphthalene (12,000 µg/kg), but lower than its Industrial Use SCO (1,000,000 µg/kg). According to the laboratory, the reporting limit was elevated as a result of dilution due to sample viscosity.

No other SVOCs were detected in sediment at concentrations exceeding the Unrestricted or Industrial Use SCOs during this investigation.

4.3.2.3 Pesticides in Sediment

As presented below, four pesticides were detected above their respective Unrestricted Use SCO; however no pesticides were detected at concentrations exceeding their Industrial Use SCOs during this investigation. The detections of these pesticides in sediment samples are likely due to remnants of historical use of the property as an apple processing facility.

- 4,4'-DDD and 4,4'-DDE were detected in each of the three sediment samples (SED-01, 12 and 17 µg/kg; SED-02; 12 and 45 µg/kg; and SED-03 8.2 and 9.8 µg/kg) and the duplicate sample (SED-02 DUP 8.2 and 30 µg/kg) at concentrations exceeding the Unrestricted Use SCO of 3.3 µg/kg for these compounds.

- 4,4'-DDT was detected in sediment samples SED-01 (30 µg/kg); SED-02 (4.1 µg/kg); and SED-03 (5.6 µg/kg) which exceeds the Unrestricted Use SCO of 3.3 µg/kg for this compound.

- Dieldrin was detected in sediment sample SED-02 (11 µg/kg) and duplicate sample SED-02 DUP (5.6 µg/kg) which exceeds the Unrestricted Use SCO of 5 µg/kg for this compound.

4.3.2.4 Metals in Sediment

Five metals were detected in some sediment samples at concentrations that exceeded their Unrestricted Use SCO. As presented below, one of these metals (arsenic, likely related to historic apple processing at the Site and current apple orchards in the Site vicinity) was also detected in a sediment sample at a concentration that also exceeded its Industrial Use SCO.

- Arsenic was detected in the sediment sample collected from SED-02 at a concentration of 32.4 mg/kg (22.7 mg/kg in the duplicate sample). This concentration is above its Unrestricted and Industrial Use SCOs of 13 mg/kg and 16 mg/kg, respectively.

- Chromium was detected in each sediment sample (SED-01 (8.88 mg/kg); SED-02 (18.3 mg/kg); SED-03 (14.3 mg/kg); and SED-04 (13.6 mg/kg), and in duplicate sample SED-02 DUP (13.9 mg/kg) which are above the Unrestricted Use SCO of 1.0 mg/kg. The Unrestricted Use SCO for chromium represents the lower of the values for hexavalent (1 mg/kg) and trivalent (30 mg/kg) chromium. Chromium was not speciated; therefore the more stringent comparison value was used.

- Manganese was detected in sediment sample SED-02 and duplicate sample SED-02 DUP at concentrations of 3,400 and 2,500 mg/kg respectively, which are above the Unrestricted Use SCO of 1,600 mg/kg for this compound.

- Zinc was detected in sediment sample SED-02 and duplicate sample SED-02 DUP at concentrations of 670 and 617 mg/kg respectively, which are above the Unrestricted Use SCO of 109 mg/kg for this compound.

- Mercury was detected in sediment sample SED-01 at a concentration of 0.190 mg/kg which is above the Unrestricted Use SCO of 0.18 mg/kg for this compound.

With the exception of chromium, all of the metals exceedances of the Unrestricted Use SCOs were marginal and likely in line with area background concentrations rather than attributable to historic or current Site use. As noted above, chromium was not speciated; therefore; the more stringent comparison value was used.

4.3.2.5 PCBs in Sediment

No PCBs were detected in sediment at concentrations exceeding their respective Unrestricted and Industrial Use SCOs during this investigation.

4.4 SURFACE WATER

Surface water samples were collected from three locations within Black Creek adjacent to the Site and one location near Black Creek where an outfall pipe discharges. As discussed above, this outfall pipe drains surface water underground from another property on the west side of South Street to the outfall location near Black Creek.

Surface water samples collected as part of this investigation were analyzed for a variety of analytical parameters as described in Section 3.3. A summary of detected compounds in surface water samples are presented in Tables 15 and 16. The following sections provide a general summary of the surface water analytical results for the September 2010 sampling event.

Field quality control (QC) samples were collected during this investigation as required in the approved Work Plan. Field QC requirements included the collection of one duplicate sample for every 20 samples collected and the collection of a minimum of one trip blank per each sampling event involving VOCs.

4.4.1 Comparison of Surface Water Sample Results to TOGS Values

The surface water sample results were compared to NYSDEC TOGS Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998 Edition.

4.4.1.1 VOCs in Surface Water

No VOCs were detected in surface water samples at concentrations exceeding the TOGS values during this investigation.

4.4.1.2 SVOCs in Surface Water

No SVOCs were detected in surface water samples at concentrations exceeding the TOGS values during this investigation.

4.4.1.3 Pesticides in Surface Water

Dieldrin was detected in surface water sample SW-01 (0.028 µg/l (estimated)) and duplicate sample SW-02 DUP (0.053 µg/l) at concentrations exceeding the TOGS value of 0.004 µg/l for this compound.

No other pesticides were detected in groundwater samples at concentrations exceeding the TOGS values during this investigation.

4.4.1.4 Metals in Surface Water

Iron and manganese were detected in surface water samples SW-01 (0.342/0.418 mg/l), SW-02 (0.623/0.507 mg/l), and duplicate sample SW-02 DUP (0.741/0.528 mg/l) at concentrations exceeding the TOGS values of 0.3 mg/l for these compounds. Surface water sample results represent total metal concentrations, which includes any particulate or colloidal material in the sample. Dissolved (filtered) metals samples for groundwater were not analyzed as part of this investigation.

No other metals were detected in surface water samples at concentrations exceeding the TOGS values during this investigation.

4.4.1.5 PCBs in Surface Water

No PCBs were detected in surface water samples at concentrations exceeding the TOGS values during this investigation.

5 DISCUSSION OF RESULTS

The results of the Site Characterization do not indicate conditions representing a threat or significant threat to the environment warranting a remedial program at the Site. Localized impacts to environmental media were noted at concentrations and distributions typical with what would be expected based on past and present use of the Site and nearby properties. The following sections discuss the results in more detail by environmental media.

5.1 SOIL SAMPLES

Detections of pesticides, arsenic (in only one sample) and acetone in soil samples at concentrations above Unrestricted Use SCO values were noted. However, only one analyte (arsenic in soil sample SC-02 (3-5') at 16.6 mg/kg) marginally exceeded the Industrial Use SCO value of 16 mg/kg. Arsenic is often found in areas where pesticides were used. Thus, the detection of arsenic is likely related to historic use of the Site as an apple processing facility and present day apple production on adjacent properties. Acetone is a common laboratory solvent. The detection of acetone in sample SC-06 (5-7') (200 µg/kg) is potentially a result of laboratory contamination of the sample.

5.2 GROUNDWATER SAMPLES

Detections of acetone, benzene, phenol, and metals at concentrations above the respective TOGS values were noted in separate monitoring wells at the Site.

Acetone was detected in SC-01 at a concentration of 73 µg/l, which is greater than the TOGS value of 50 µg/l. Acetone is sometimes attributable to laboratory cross contamination, although the concentration detected in well SC-01 is greater than what is typically seen from laboratory cross contamination. However, acetone was either not detected or detected at very low concentrations in other groundwater samples taken from the Site.

Benzene was detected in the groundwater sample collected from overburden monitoring well SC-02 at a concentration of 2.2 µg/l, which is greater than the TOGS value of 1 µg/l. This well is in down gradient of the recently remediated petroleum spill (Spill Number 08-11423) at the Site. The detected benzene concentration in monitoring well SC-02 is likely a remnant effect of this previously reported petroleum spill.

Phenol was detected in the groundwater sample collected from bedrock monitoring well SC-03B at a concentration of 27 µg/l, which is above the TOGS value of 1 µg/l. This well is in the up/cross gradient of the previously remediated petroleum spill (#08-11423) at the Site and down gradient of a recently closed petroleum spill (#97-02776), located on another property across South Street to the west of the Site. Sources of phenol vary, but include the biodegradation process of gasoline and diesel fuel, creosote and wood treatment activities, and is at times occurs in natural biological systems. As such, possible sources of the phenol detected in this well are the recently closed petroleum spill (#97-02776) on the west side of South Street, the closed petroleum spill (08-11423) at the Site, or natural biological systems in the subsurface.

Aluminum, iron, magnesium, manganese, selenium, and sodium were detected in one or more groundwater sample at concentrations exceeding their respective TOGS value. None of the exceedances are greater than one order of magnitude of the TOGS values with the exception of all sample results for iron and one (SC-01) sample result for manganese. According to Panasonic representatives, elevated iron concentrations were historically noted in the Domestic Well at the Site. Groundwater samples results from this investigation represent total metal concentrations, which may include particulate or colloidal material in the sample. Dissolved (filtered) metals samples for groundwater were not analyzed as part of this investigation.

Prism representatives directed the sampling team to the taps for the Process and Domestic Wells. When the results for these wells are compared to the 2009 analytical results, it appears that the taps had been switched during this round of sampling. However, no compounds were detected at concentrations above the respective TOGS values from these wells.

5.3 SEDIMENT SAMPLES

Detections of acetone, certain SVOCs, pesticides, and metals in sediment samples at concentrations above Unrestricted Use SCO values were noted. However, only two SVOCs (benzo(a)pyrene and indeno(1,2,3-cd)pyrene) and arsenic exceeded the respective Industrial Use SCO values These detections were all in sample SED-02 and duplicate sample SED-02 DUP which were collected from an area beneath an outfall pipe that reportedly drains surface water underground from another property on the west side of South Street to the outfall location approximately 10 feet west of Black Creek.

5.4 SURFACE WATER SAMPLES

Detections of the pesticide, dieldrin, as well as iron and manganese in surface water were noted at concentrations above the respective TOGS values.

The detection of dieldrin is likely related to remnants of historical use of the property as an apple processing facility and/or current use of adjacent properties of apple production.

6 CONCLUSIONS

As stated in Section 1, the Site Characterization was implemented to fill remaining, previously identified data gaps regarding the nature and extent of potential environmental contamination at the Site and potential impacts to human health and the environment. Based on the historic use of the Site and data collected, the Site Characterization was also implemented to further investigate and characterize subsurface conditions.

Although a limited number of contaminants were detected at the Site in exceedance of the respective cleanup values (i.e. Unrestricted/Industrial Use SCOs and TOGS), the results indicate localized conditions, most of which appear related to the former apple processing operations at the Site or are likely remnants of completed oil spill remediation projects undertaken at the Site and do not indicate any threat or significant threat to the environment.

7 REFERENCES

EnviroGroup Limited, 2010. Site Characterization Work Plan, Final, April.

NYSDEC, 2010. DER-10, Technical Guidance for Site Investigation and Remediation, June.

NYSDEC, 2006. Subpart 375-6: Remedial Program Soil Cleanup Objectives, December.

NYSDEC, 1998. Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June.

NYSDOH, 2006. Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October.

Tables

TABLE 1

ANALYTICAL SAMPLE SUMMARY

Former PPDLA Facility
Highland, New York

Location ID	TCL VOCs	VOC 524.2	TCL SVOCs	TAL Metals	Pesticides	PCBs
SOIL ANALYSES (exterior)						
SC-01	X		X	X	X	
SC-02	X		X	X		X
SC-03	X		X	X		
SC-03B						
SC-04	X		X	X		
SC-04B						
SC-05	X		X	X		
SC-06	X		X	X	X	
SC-06B						
SC-07	X		X	X	X	
SC-07B						
ISB-01	X					
ISB-02	X					
ISB-03	X					
ISB-04	X					
ISB-05	X					
DUPLICATE	X		X	X	X	
MS/MSD	X		X	X		
FIELD BLANK	X		X	X		
TRIP BLANK	X					
SEDIMENT ANALYSES						
SED-01	X		X	X	X	X
SED-02	X		X	X	X	X
SED-03	X		X	X	X	X
SED-04	X		X	X	X	X
DUPLICATE	X		X	X	X	X
MS/MSD	X		X	X	X	X
FIELD BLANK	X		X	X	X	X
TRIP BLANK	X					

NOTES:

1. TCL VOCs (Target Analyte List Volatie Organic Compounds) were analyzed for via USEPA Method 8260B.
2. VOCs 524.2 Analyzed via USEPA Method 524.2.
3. TCL SVOCs (Target Analyte List Semi-Volatie Organic Compounds) were analyzed for via USEPA Method 8270C.
4. TAL Metals (Target Analyte List Metals) were analyzed via USEPA Methods 6010B and 7471A.
5. Pesticides were analyzed via USEPA Method 8081A.
6. PCBs (Poly Chlorinated Biphenyls) were analyzed via USEPA Method 8082.
7. MS/MSD indicates Matrix Spike/Matrix Spike Duplicate.

TABLE 1

ANALYTICAL SAMPLE SUMMARY

Former PPDLA Facility
Highland, New York

Location ID	TCL VOCs	VOC 524.2	TCL SVOCs	TAL Metals	Pesticides	PCBs
GROUNDWATER ANALYSES						
SC-01	X		X	X		
SC-02	X		X	X		X
SC-03	X		X	X		
SC-03B	X		X	X		
SC-04	X		X	X		
SC-04B	X		X	X		
SC-05	X		X	X		
SC-06	X		X	X	X	
SC-06B	X		X	X	X	
SC-07	X		X	X	X	
SC-07B	X		X	X	X	
Process		X				
Front Yard		X				
Domestic		X				
DUPLICATE	X		X	X	X	X
MS/MSD	X		X	X	X	
FIELD BLANK	X		X	X	X	X
TRIP BLANK	X					
SURFACE WATER ANALYSES						
SW-01	X		X	X	X	X
SW-02	X		X	X	X	X
SW-03	X		X	X	X	X
SW-04	X		X	X	X	X
DUPLICATE	X		X	X	X	X
MS/MSD	X		X	X	X	X
TRIP BLANK	X					

NOTES:

1. TCL VOCs (Target Analyte List Volatie Organic Compounds) were analyzed for via USEPA Method 8260B.
2. VOCs 524.2 Analyzed via USEPA Method 524.2.
3. TCL SVOCs (Target Analyte List Semi-Volatie Organic Compounds) were analyzed for via USEPA Method 8270C.
4. TAL Metals (Target Analyte List Metals) were analyzed via USEPA Methods 6010B and 7471A.
5. Pesticides were analyzed via USEPA Method 8081A.
6. PCBs (Poly Chlorinated Biphenyls) were analyzed via USEPA Method 8082.
7. MS/MSD indicates Matrix Spike/Matrix Spike Duplicate.

TABLE 2

SUMMARY OF DETECTIONS FOR VOCs IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	ISB-01	ISB-02	ISB-03	ISB-04	ISB-05	SC-01	SC-02	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (ft bgs)	0-2	0-1	0-2	0-1	0.5-2	2-4	3-5		
SAMPLING DATE	09/20/10	09/17/10	09/20/10	09/20/10	09/20/10	09/13/10	09/15/10		
2-Butanone (MEK)	<27	<28	<30	<29	<29	<33	<29	NA	NA
Acetone	<27	12 J	<30	6.7 J	<29	<33	10 J	50	1,000,000 a
Methylene Chloride	7.0	3.9 J	4.2 J	4.0 J	4.8 J	12 &	9.6 &	50	1,000,000 a

SAMPLE ID	SC-03	SC-04	SC-05	SC-05 DUP	SC-06	SC-07		Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (ft bgs)	3-5	6-8	8-10	8-10	5-7	2-4			
SAMPLING DATE	09/16/10	09/15/10	09/14/10	09/14/10	09/16/10	09/13/10			
2-Butanone (MEK)	<28	<28	<27	<27	11 J	<31		NA	NA
Acetone	<28	<28	<27	<27	200	<31		50	1,000,000 a
Methylene Chloride	9.9 &&	13 &	10 &	9.4 &	7.60	12 &		50	1,000,000 a

NOTES:

1. All values are expressed in micrograms per kilogram (µg/kg).
2. "ft bgs" - Feet below ground surface
3. "VOCs" - Volatile Organic Compounds
4. "NA" - Not applicable
5. "J" - Estimated
6. "&" Compound also detected in field blank at greater than 10 percent of associated sample concentation.
7. "&&" Compound also detected in trip blank at greater than 10 percent of assoicated sample concentration.
8. "a" : The Soil Cleanup Objectives (SCOs) for industrial use and the protection of groundwater were capped by NYSDEC at a maximum value of 1,000,000 µg/kg.

TABLE 3

SUMMARY OF DECTECTIONS FOR SVOCs IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SC-01	SC-02	SC-03	SC-04	SC-05	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (ft bgs)	2-4	3-5	3-5	6-8	8-10		
SAMPLING DATE	9/13/2010	9/15/2010	9/16/2010	9/15/2010	9/14/2010		
Diethyl phthalate	<230	<200	<190	<190	26 J	NA	NA
Acenaphthene	<230	<200	29 J	<190	<190	20,000	1,000,000 a

SAMPLE ID	SC-05 DUP	SC-06	SC-07			Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (ft bgs)	8-10	5-7	2-4				
SAMPLING DATE	9/14/2010	9/16/2010	9/13/2010				
Diethyl phthalate	57 J	<220	<200			NA	NA
Acenaphthene	<190	<220	<200			20,000	1,000,000 a

NOTES:
1. All values are expressed in micrograms per kilogram (µg/kg).
2. "ft bgs" - Feet below ground surface
3. "SVOCs" - Semi Volatile Organic Compounds
4. "NA" - Not applicable
5. "J" - Estimated
6. "a" : The Soil Cleanup Objectives (SCOs) for industrial use and the protection of groundwater were capped at a maximum value of 1,000,000 µg/kg. See New York State Department of Environmental Conservation Technical Support document (TSD) section 9.3.

TABLE 4

SUMMARY OF DETECTIONS FOR METALS IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SC-01	SC-02	SC-03	SC-04	SC-05	SC-05 DUP	SC-06	SC-07	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (ft bgs)	2-4	3-5	3-5	6-8	8-10	8-10	5-7	2-4		
SAMPLING DATE	9/13/2010	9/15/2010	09/16/10	9/15/2010	9/14/2010	9/14/2010	9/16/2010	9/13/2010		
Aluminum	16,900 B	12,000 B	11,900 B	11,500 B	7,630 B	8,490 B	12,000 B	13,500 B	NA	NA
Antimony	1.0 J B	0.9 J, B	<16.2	0.8 J, B	0.7 J, B	<15.3	<19.4	<18.7	NA	NA
Arsenic	6.4	16.6	8.6	9.5	5.6	6.7	9.6	8.9	13 a	16
Barium	47.4 B	91.2 B	39.0 B	62.1 B	46.2 B	43.1 B	76.4 B	35.6 B	350 a	10,000 b
Beryllium	0.558 B	0.822 B	0.605 B	0.630 B	0.517 B	0.472 B	0.636 B	0.649 B	7	2,700
Cadmium	<0.270	0.202 J	0.167 J	0.169 B	0.039 J	0.083 J	0.282	0.110 J	2.5 a	60
Calcium	1,820 B	1710 B	519 B	3,120 B	92,000 D08 B &	29,500 B &	3,040 B	2,210 B	NA	NA
Chromium	21.6	17.1	15.7	16.7	11.2	12.8	13.0	18.7	1.0 d	800 d
Cobalt	8.31	15.0	12.0	12.5	7.98	7.96	10.4	13.5	NA	NA
Copper	14.9	14.2	25.7	30.1	20.9	21.1	19.2	36.7	50	10,000 b
Iron	29,800	35,400 B1	27,200 B1	28,000	18,300	20,000	22,800 B1	30,800	NA	NA

NOTES:

1. All values are expressed in milligrams per kilogram (mg/kg).
2. "ft bgs" - Feet below ground surface
3. "NA" - Not applicable
4. "B" Analyte was detected in the associated Method Blank.
5. "D08" Dilution required due to high concentration of target analyte(s)
6. "B1" Analyte was detected in the associated method / calibration blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
7. "J" - Estimated
8. "&" Sample/Sample Duplicate relative percent difference was greater than 20% where result was greater than 5 times the reporting limit.
9. "a" : For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the New York State Department of Environmental Conservation (NYSDEC) and NYS Health rural soil survey, soil background concentration is used as the Unrestricted Use SCO value for this use of the site.
10. "b" : The SCOs for metals were capped by NYSDEC at a maximum value of 10,000 mg/kg. See NYSDEC Technical Support Document (TSD) section 9.3.
11. "c" : For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted Use SCO value for this use of the site.
12. "d" This SCO is the lower of the values for chromium (hexavalent) or chromium (trivalent).
13. "e" : This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts)

TABLE 4

SUMMARY OF DETECTIONS FOR METALS IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SC-01	SC-02	SC-03	SC-04	SC-05	SC-05 DUP	SC-06	SC-07	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (ft bgs)	2-4	3-5	3-5	6-8	8-10	8-10	5-7	2-4		
SAMPLING DATE	9/13/2010	9/15/2010	09/16/10	9/15/2010	9/14/2010	9/14/2010	9/16/2010	9/13/2010		
Lead	14.9	21.0	14.3	15.7	10.7	10.0	45.2	18.0	63 a	3,900
Mangnesium	4,690	3,710	3,980	4,530	5,050	5,620	3060	6,960	NA	NA
Manganese	277	1550	481	567	448 &	312 &	1870	1,360	1,600 a	10,000 b
Nickel	19.7	24.7	23.9	33.7	20.3	22.4	17.6	29.1	30	10,000 b
Potassium	705 B	882 B	944 B	1,260 B	1,230 B	1,300 B	755 B	1,300 B	NA	NA
Selenium	2.0 J	2.0 J	1.1 J	1.5 J	1.2 J	1.7 J	1.0 J	1.1 J	3.9 a	6,800
Silver	0.117 J	<0.581	<0.541	0.081 J	<0.564	<0.510	0.114 J	<0.624	2	6,800
Sodium	87.9 J	117 J	216	214	62.4 J	97.2 J	74.2 J	64.8 J	NA	NA
Vanadium	29.2	26.0	20.5	20.2	14.3	15.6	22.2	21.4	NA	NA
Zinc	83.9	69.1	76.0	78.2	56.9 &	116 &	75.0	95.1	109 a	10,000 b
Mercury	0.0496	0.0120 J	0.0258	0.0387	0.0233	0.0185 J	0.0497	0.028	0.18 e	5.7 e

NOTES:

1. All values are expressed in milligrams per kilogram (mg/kg).
2. "ft bgs" - Feet below ground surface
3. "NA" - Not applicable
4. "B" Analyte was detected in the associated Method Blank.
5. "D08" Dilution required due to high concentration of target analyte(s)
6. "B1" Analyte was detected in the associated method / calibration blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
7. "J" - Estimated
8. "&" Sample/Sample Duplicate relative percent difference was greater than 20% where result was greater than 5 times the reporting limit.
9. "a" : For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the New York State Department of Environmental Conservation (NYSDEC) and NYS Health rural soil survey, soil background concentration is used as the Unrestricted Use SCO value for this use of the site.
10. "b" : The SCOs for metals were capped by NYSDEC at a maximum value of 10,000 mg/kg. See NYSDEC Technical Support Document (TSD) section 9.3.
11. "c" : For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted Use SCO value for this use of the site.
12. "d" This SCO is the lower of the values for chromium (hexavalent) or chromium (trivalent).
13. "e" : This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts)

TABLE 5

SUMMARY OF DETECTIONS FOR PESTICIDES IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SC-01	SC-06	SC-06 DUP	SC-07	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLE DEPTH (ft bgs)	2-4	5-7	5-7	2-4		
SAMPLING DATE	9/13/2010	9/16/2010	9/16/2010	9/13/2010		
4,4'-DDD	20 QSU D08 J	75 QSU D08	58 QSU D08	3.9 QSU	3.3 a	180,000
4,4'-DDE	51 QSU D08	120 QSU D08	99 QSU D08	5.1 QSU	3.3 a	120,000
4,4'-DDT	9.7 QSU D08 J	17 QSU D08 J	15 QSU,D08 J	2.3 QSU	3.3 a	94,000
Dieldrin	14 QSU D08 J	20 QSU D08 J	15 QSU,D08 J	0.76 QSU J	5 b	2,800
Endrin	5.2 QSU D08 J	<43	10 QSU,D08 J	0.73 QSU J	14	410,000

NOTES:
1. All values are expressed in micrograms per kilogram (µg/kg).
2. "ft bgs" - Feet below ground surface
3. "NA" - Not applicable
4. "J" - Estimated
5. "QSU" Sulfur (EPA 3660) clean-up performed on extract
6. "D08" Dilution required due to high concentration of target analyte(s)
7. "a" : For constituents where the calculated Soil Cleanup Objective (SCO) was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Unrestricted Use SCO value.
8. "b" : For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the New York State Department of Environmental Conservation (NYSDEC) and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted Use SCO value for this use of the site.

TABLE 6

MONITORING WELL DETAILS AND WATER LEVEL ELEVATIONS

Former PPDLA Facility
Highland, New York

Well ID	Well Depth (ft btoc)	Total Depth of Boreholes	Top of Bedrock (ft bgs)	Screen/Open hole Interval (ft btoc)	Depth to Water (ft btoc)	Water Level Elevation (NAVD 88)	Top of Casing Elevation
SC-01	15.26	37	37	5.5 - 15.5	3.42	406.65	410.07
SC-02	13.59	19.7	19.7	4 - 14	3.64	408.87	412.51
SC-03	16.59	18	18	7 - 17	7.66	411.79	419.45
SC-03B	32.43	33	20	22 - 33 [6]	8.02	411.64	419.66
SC-04	14.09	15	15	10 - 15	8.26	412.35	420.61
SC-04B	29.45	30	16	18.7 - 30 [6]	8.33	412.16	420.49
SC-05	11.71	13	N/E	8 - 13	3.03	412.83	415.86
SC-06	16.25	19.5	19.5	4 - 14	5.06	408.41	413.47
SC-06B	34.49	34	22	24 - 34 [6]	4.99	408.89	413.88
SC-07	11.95	25.4	25.4	4 - 14	2.47	408.03	410.50
SC-07B	36.40	37	24.5	26.5 - 37 [6]	1.55	409.14	410.69

Notes:
1. ft bgs - Feet below ground surface.
2. ft btoc - feet below top of casing.
3. Depth to water for overburden wells measured during sampling on October 25, 2010.
4. Depth to water for shallow bedrock wells measured during sampling on October 26, 2010.
5. Relative elevation survey conducted October 25, 2010.
6. N/E - Not encountered.
7. Shallow bedrock wells are SC-03B, SC-04B, SC-06B, and SC-07B.
8. NAVD 88 - North American Vertical Datum of 1988.

TABLE 7

SUMMARY OF VOCs DETECTED IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

	Overburden Wells								TOGS 1.1.1 Value
Sample ID:	SC-01	SC-02	SC-03	SC-03 DUP	SC-04	SC-05	SC-06	SC-07	
Sampling Date:	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	
1,1,1-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	5
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	5
2-Butanone (MEK)	<10	<10	<10	<10	<10	3.6	<10	<10	50
Acetone	**73**	5.2	5.5	4.8	<10	20	<10	3.3	50
Benzene	<1	**2.2**	<1	<1	<1	<1	<1	<1	1

	Bedrock Wells								TOGS 1.1.1 Value
Sample ID:	SC-03B	SC-04B	SC-06B	SC-07B	Front Yard	Process Well	Domestic Well		
Sampling Date:	10/26/2010	10/26/2010	10/26/2010	10/26/2010	10/26/10	10/27/10	10/27/10		
1,1,1-Trichloroethane	<1	<1	<1	<1	<0.50	<0.50	0.20 J		5
1,1-Dichloroethane	<1	<1	<1	<1	<0.50	<0.50	0.80		5
2-Butanone (MEK)	<10	<10	<10	<10	NA	NA	NA		50
Acetone	<10	<10	<10	<10	NA	NA	NA		50
Benzene	<1	<1	<1	<1	<0.50	<0.50	<0.50		1

NOTES:

1. All values are expressed in micrograms per liter (µg/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "**Bold**" - Analytical result exceeds TOGS Value.
4. "VOC" - Volatile Organic Compound.
5. NA - Not Analyzed

TABLE 8

SUMMARY OF SVOCs DETECTED IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

Sample ID:	Overburden Wells						TOGS 1.1.1 Value
	SC-01	SC-02	SC-03	SC-03 DUP	SC-04	SC-05	
Sampling Date:	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	
Acetophenone	<5.1	<5.4	<5.0	<5.0	<5.0	<5.3	NA
Bis(2-ethylhexyl) phthalate	<5.1	<5.4	<5.0	<5.0	<5.0	<5.3	5
Di-n-butyl phthalate	<5.1	<5.4	<5.0	<5.0	<5.0	<5.3	50
Phenol	<5.1	<5.4	<5.0	<5.0	<5.0	<5.3	1

Sample ID:	Overburden Wells		Bedrock Wells				TOGS 1.1.1 Value
	SC-06	SC-07	SC-03B	SC-04B	SC-06B	SC-07B	
Sampling Date:	10/25/2010	10/25/2010	10/26/2010	10/26/2010	10/26/2010	10/25/2010	
Acetophenone	<4.7	<4.7	0.6	<5.0	<4.9	<5.0	NA
Bis(2-ethylhexyl) phthalate	<4.7	<4.7	3.5	4.1	3.3	3.5	5
Di-n-butyl phthalate	<4.7	<4.7	<5.2	<5.0	0.46	<5.0	50
Phenol	<4.7	<4.7	**27**	<5.0	<4.9	<5.0	1

NOTES:

1. All values are expressed in micrograms per liter (µg/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "**Bold**" - Analytical result exceeds TOGS Value.
4. "NA" - Not applicable.
5. "SVOC" - Semi-volatile Organic Compound.

TABLE 9

SUMMARY OF METALS DETECTED IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

	Overburden Wells								TOGS 1.1.1 Value
Sample Name:	SC-01	SC-02	SC-03	SC-03 DUP	SC-04	SC-05	SC-06	SC-07	
Sample Date:	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	10/25/2010	
Aluminum	<0.200	**4.50**	0.120 J	0.117 J	0.092 J	0.319	**3.74**	0.153	2.0
Arsenic	0.0185	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0111	0.0238	0.025
Barium	0.0550	0.178	0.0635	0.0633	0.0661	0.0426	0.148	0.0802	1
Cadmium	0.0004 J	0.0005 J	0.0004 J	0.0003 J	0.0003 J	<0.0010	0.0004 J	0.0004 J	0.005
Calcium	102	216	138	137	133	94.3	145	119	NA
Chromium	0.0021 J	0.0084	<0.0040	0.0014 J	0.0010 J	<0.0040	0.0075	0.0013 J	0.05
Cobalt	0.0024 J	0.0041	<0.0040	0.0009 J	0.0007 J	<0.0040	0.0024 J	0.0007 J	NA
Copper	<0.0100	0.0060 J	<0.0100	<0.0100	<0.0100	<0.0100	0.0052 J	<0.0100	0.2
Iron	**7.74**	**6.29**	0.127	0.136	0.130	**0.349**	**12.6**	**28.5**	0.3
Lead	0.0042 J	0.0053	<0.0050	<0.0050	<0.0050	<0.0050	0.0039 J	<0.0050	0.05
Magnesium	9.15	**48.3**	11.1	11.3	9.58	6.54	18.5	16.8	35
Manganese	**17.0 D08**	**1.55**	**0.663**	**0.674**	**0.827**	**0.348**	**3.15**	**6.01**	0.3
Nickel	<0.0100	0.0098 J	0.0021 J	0.0018 J	0.0024 J	0.0025 J	0.0064 J	<0.0100	0.1
Potassium	0.944	14.1	3.26	3.26	3.37	3.74	4.06	2.06	NA
Selenium	**0.0209**	<0.0150	<0.0150	<0.0150	<0.0150	<0.0150	0.0092 J	**0.0106 J**	0.01
Sodium	**36.6**	**106**	**181**	**182**	**195**	**35.1**	**78.1**	**29.6**	20
Vanadium	0.0023	0.0086	<0.0050	<0.0050	<0.0050	0.0015 J	0.0066	0.0022 J	NA
Zinc	<0.0100	0.0174	0.0022 J	<0.0100	<0.0100	<0.0100	0.0185	<0.0100	2

NOTES:
1. All values are expressed in milligrams per liter (mg/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "**Bold**" - Analytical result exceeds TOGS Value.
4. "NA" - Not applicable
5. "J" - Estimated concentration.
6. "B" - Analyte was detected in the associated method blank.
7. "D08" - Dilution required due to high concentration of target analyte.
8. "C" - Calibration verification recovery was above the method control limit for this analyte. Analyte not detected above the laboratory PQL, data not impacted.

TABLE 9

SUMMARY OF METALS DETECTED IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

	Bedrock Wells					TOGS 1.1.1 Value
Sample Name:	SC-03B	SC-04B	SC-06B	SC-07B		
Sample Date:	10/26/2010	10/26/2010	10/26/2010	10/26/2010		
Aluminum	**4.49**	0.099 C J	<0.200 C	0.177 J		2.0
Arsenic	<0.0100	<0.0100	<0.0100	<0.0100		0.025
Barium	0.523	0.189	0.156	0.0828		1
Cadmium	0.0005 J	<0.0010	<0.0010	0.003 J		0.005
Calcium	229	111	126	71.9		NA
Chromium	0.0378	0.0015 J	<0.0040	0.0025 J		0.05
Cobalt	0.0038 J	<0.0040	<0.0040	<0.0040		NA
Copper	0.0152	<0.0100	<0.0100	<0.0100		0.2
Iron	**7.56**	**2.03**	**0.630**	**3.35**		0.3
Lead	0.0069	<0.0050	<0.0050	<0.0050		0.05
Magnesium	**40.0**	11.3	16.5	7.58		35
Manganese	**1.11 B**	**0.429 B**	**0.883 B**	0.0522 B		0.3
Nickel	0.0278	<0.0100	<0.0100	0.013 J		0.1
Potassium	6.26	1.52	2.70	2.06		NA
Selenium	<0.0150	<0.0150	<0.0150	<0.0150		0.01
Sodium	**84.0**	**144**	**94.7**	**38.3**		20
Vanadium	0.0073	<0.0050	<0.0050	0.0021 J		NA
Zinc	0.0251	0.0025 J	<0.0100	0.0027 J		2

NOTES:
1. All values are expressed in milligrams per liter (mg/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "**Bold**" - Analytical result exceeds TOGS Value.
4. "NA" - Not applicable
5. "J" - Estimated concentration.
6. "B" - Analyte was detected in the associated method blank.
7. "D08" - Dilution required due to high concentration of target analyte.
8. "C" - Calibration verification recovery was above the method control limit for this analyte. Analyte not detected above the laboratory PQL, data not impacted.

TABLE 10

SUMMARY OF PESTICIDES DETECTED IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

	Overburden Wells		Bedrock Wells			TOGS 1.1.1 Value
Sample ID:	SC-06	SC-07	SC-06B	SC-06B DUP	SC-07B	
Sampling Date:	10/25/2010	10/25/2010	10/26/2010	10/26/2010	10/26/2010	
4,4'-DDT	0.19	<0.048	<0.048	<0.048	<0.051	0.2

NOTES:

1. All values are expressed in micrograms per liter (µg/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.

TABLE 11

SUMMARY OF VOCs DETECTED IN SEDIMENT SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SED-01	SED-02	SED-02 DUP	SED-03	SED-04	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLING DATE	09/22/10	09/22/10	09/22/10	09/22/10	09/22/10		
2-Butanone (MEK)	31 J	16 J	16 J	<44	<49	120	1,000,000 a
Acetone	120.0	66.0	72.0	21 J	<49	50	1,000,000 a
Methylene Chloride	<13	6.0 J	5.5 J	6.4 J	8.6 J	50	1,000,000 a

NOTES:

1. All values are expressed in micrograms per kilogram (µg/kg).
2. "VOCs" - Volatile Organic Compounds.
3. "J" - Estimated concentration.
4. "a" : The SCO for industrial use were capped by NYSDEC at a maximum value of 1,000,000 µg/kg.

TABLE 12

SUMMARY OF DETECTIONS OF SVOCs IN SEDIMENT SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SED-01	SED-02	SED-02 DUP	SED-03	SED-04	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLING DATE	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
2-Methylnaphthalene	<890 D12	<20,000 T10 D12	<16,000 T10 D12	<310	14 J	NA	NA
Benzo(a)anthracene	<890 D12	5,400 T10 D12 J	5,400 T10 D12 J	<310	<330	1,000 b	11,000
Benzo(a)pyrene	110 D12 J	**6,600 T10 D12 J**	**5,600 T10 D12 J**	<310	<330	1,000 b	1,100
Benzo(b)fluoranthene	<890 D12	8,600 T10 D12 J	7,600 T10 D12 J	<310	<330	1,000 b	11,000
Benzo(ghi)perylene	<890 D12	39,000 T10 D12	32000 T10 D12	<310	<330	100,000	1,000,000 b
Benzo(k)fluoranthene	<890 D12	2,800 T10 D12 J	2,500 T10 D12 J	<310	<330	800 b	110,000
Carbazole	<890 D12	<20,000 T10 D12	800 T10 D12 J	<310	<330	NA	NA
Chrysene	<890 D12	8,400 T10 D12 J	6,400 T10 D12 J	<310	<330	1,000 b	110,000
Diethyl phthalate	<890 D12	<20,000 T10 D12	<16,000 T10 D12	<310	<330	NA	NA
Fluoranthene	67 D12 J	14,000 T10 D12 J	12,000 T10 D12 J	22 J	<330	100,000 a	1,000,000 b
Indeno(1,2,3-cd)pyrene	<890 D12	**37,000 T10 D12**	**30,000 T10 D12**	<310	<330	500 b	11,000
Naphthalene	<890 D12	<20,000 T10 D12	<16,000T10 D12	<310	410	12,000	1,000,000 b
Phenanthrene	<890 D12	5,600 T10 D12 J	4,700 T10 D12 J	<310	<330	100,000	1,000,000 b
Pyrene	51 D12 J	12,000 T10 D12 J	10,000 T10 D12 J	19 J	<330	100,000	1,000,000 b

NOTES:

1. All values are expressed in micrograms per kilogram (μg/kg).
2. "SVOC" Semi Volatile Organic Compound.
3. "NA" - Not applicable.
4. "J" - Estimated concentration.
5. "T10" Sample had an adjusted final volume during extraction due to extract matrix and / or viscosity.
6. "D12" Dilution required due to sample viscosity.
7. "**Bold**" - Analytical result exceeds Industrial Use soil cleanup objective (SCO).
8. "a" The SCOs for unrestricted use were capped by NYSDEC at a maximum value of 100,000 μg/kg. See New York State Department of Environmental Conservation (NYSDEC).
9. "b" For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted use SCO value for this use of the site.

TABLE 13

SUMMARY OF DETECTIONS OF METALS IN SEDIMENT SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SED-01	SED-02	SED-02 DUP	SED-03	SED-04	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLING DATE	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
Aluminum	7,050 B	10,900 B	7,420 B	11,200 B	8710 B	NA	NA
Arsenic	6.0 B	32.4 B	22.7 B	3.3 B	3.0 J B	13 c	16 b
Barium	63.3 B	120 B	88.5 B	71.9 B	70.8 B	350 c	10,000 a
Beryllium	0.386 J B	0.464 J B	0.366 J B	0.528 B	0.448 B	7.2	2,700
Cadmium	0.268 J	1.11	0.864	0.123 J	0.184 J	2.5 c	60
Calcium	2,630 B	19,200 B	13,700 B	2,200 B	4,680 B	NA	NA
Chromium	8.88 B	18.3 B	13.9 B	14.3 B	13.6 B	1 e	800 e
Cobalt	5.56	11.5	9.68	6.44	5.50	NA	NA
Copper	14.6	41.8	31.1	12.8	9.8	50	10,000 a
Iron	14,100	26,900	21,600	15,800	12,400	NA	NA

NOTES:

1. All values are expressed in milligrams per kilogram (mg/kg).
2. "B" Analyte was detected in the associated Method Blank.
3. "J" - Estimated concentration.
4. "NA" - Not applicable.
5. "a" The SCOs for metals were capped by the NYSDEC at a maximum value of 10,000 mg/kg. See New York State Department of Environmental Conservation Technical Support Document (TSD) section 9.3
6. "b" For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted use SCO value for this use of the site.
7. "c" For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted use SCO value for this use of the site.
8. "d" This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.
9. "e" : This SCO is for the lower of the values for Chromium (hexvalent) or Chromium (Trivalent).
10. "f" : This SCO is the lower of the value for mercury (elemental) or mercury (inorganic salts).

TABLE 13

SUMMARY OF DETECTIONS OF METALS IN SEDIMENT SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SED-01	SED-02	SED-02 DUP	SED-03	SED-04	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLING DATE	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
Lead	39.8	46.5	40.4	23.0	7.6	63 c	3,900
Mangnesium	1,920	4,850	4,480	3,220	2,660	NA	NA
Manganese	698 B	3,400 B	2,500 B	355 B	154 B	1,600 c	10,000 a
Nickel	11.0	24.7	18.8	16.2	13.8	30	10,000 a
Potassium	402	822	659	566	523	NA	NA
Selenium	0.9 J	1.9 J	<7.6	1.6 J	2.7 J	3.9 c	6,800
Sodium	109 J B	202 J B	181 J B	49.2 J B	105 J B	NA	NA
Vanadium	11.5	27.5	22.9	16.0	13.8	NA	NA
Zinc	94.3 B	670 B	617 B	72.7 B	50.6 B	109 c	10,000 a
Mercury	0.190	0.0844	0.0689	0.0381	0.0166 J	0.18 f	5.7 f

NOTES:

1. All values are expressed in milligrams per kilogram (mg/kg).
2. "B" Analyte was detected in the associated Method Blank.
3. "J" - Estimated concentration.
4. "NA" - Not applicable.
5. "a" The SCOs for metals were capped by the NYSDEC at a maximum value of 10,000 mg/kg. See New York State Department of Environmental Conservation Technical Support Document (TSD) section 9.3
6. "b" For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted use SCO value for this use of the site.
7. "c" For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted use SCO value for this use of the site.
8. "d" This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.
9. "e" : This SCO is for the lower of the values for Chromium (hexvalent) or Chromium (Trivalent).
10. "f" : This SCO is the lower of the value for mercury (elemental) or mercury (inorganic salts).

TABLE 14

SUMMARY OF PESTICIDES DETECTED IN SEDIMENT SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SED-01	SED-02	SED-02 DUP	SED-03	SED-04	Unrestricted Use Soil Cleanup Objective	Industrial Use Soil Cleanup Objective
SAMPLING DATE	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010		
4,4'-DDD	12 B	12 B QFL	8.2 B QFL	8.2 B	<3.2	3.3 a	180,000
4,4'-DDE	17	45 QFL	30 QFL	9.8	2.0 J	3.3 a	120,000
4,4'-DDT	30 B	4.1 B QFL	3.0 B QFL	5.6 B	<3.2	3.3 a	94,000
Aldrin	1.9 J	<4.0 QFL	3.4 QFL	<3.0	<3.2	5 b	1,400
Dieldrin	2.5 J B	11 B QFL	5.6 B QFL	1.8 J B	<3.2	5 b	2,800
Endosulfan II	<4.3	2.0 J QFL	<3.2 QFL	<3.0	<3.2	2,400	920,000 c
Endrin	<4.3	<4.0 QFL	3.1 J QFL	<3.0	<3.2	14	410,000
Endrin ketone	1.6 J	<4.0 QFL	<3.2 QFL	<3.0	<3.2	NA	NA
gamma-Chlordane	2.4 J	3.0 J QFL	1.9 J QFL	1.5 J	<3.2	NA	NA

NOTES:

1. All values are expressed in micrograms per kilogram (µg/kg).
2. "NA" - Not applicable.
3. "J" - Estimated concentration.
4. "B" : Analyte was detected in the associated method blank.
5. "QFL" : Florisil clean-up (EPA 3620) performed on extract.
6. "a" : For constituents where the calculated Soil Cleanup Objective was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Unrestricted Use SCO value.
7. "b" : For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the NYSDEC and NYS Department of Health rural soil survey, the rural soil background concentration is used as the Unrestricted use SCO value for this use of the site.
8. "c" : Value reprsents the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

TABLE 15

SUMMARY OF METALS DETECTED IN SURFACE WATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SW-01	SW-02	SW-02 DUP	SW-03	SW-04	TOGS 1.1.1 Value
SAMPLING DATE	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	
Aluminum	0.056 J	0.223	0.286	<0.200	0.079 J	2.0
Barium	0.0114	0.0314	0.0320	0.0124	0.0144	1.0
Calcium	43.8 B	110 B	112 B	45.1 B	46.8 B	NA
Chromium	<0.0040	0.0024 J	0.0015 J	<0.0040	<0.0040	0.050
Copper	0.0015 J	0.0041 J	0.0038 J	0.0023 J	0.0018 J	0.2
Iron	**0.342**	**0.623**	**0.741**	0.189	0.218	0.3
Magnesium	5.41	9.08	9.27	5.66	5.83	35.0
Manganese	**0.418**	**0.507**	**0.528**	0.167	0.156	0.3
Potassium	1.22	5.04	5.18	1.21	1.26	NA
Sodium	23.1	71.1	73.0	22.5	23.3	NA
Vanadium	<0.0050	0.0013 J	0.0012 J	<0.0050	<0.0050	0.014
Zinc	<0.0100	0.0295	0.0344	<0.0100	<0.0100	2.0

NOTES:
1. All values are expressed in milligrams per liter (mg/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "B" Analyte was detected in the associated Method Blank.
4. "J" - Estimated concentration.
5. "NA" - Not applicable.

TABLE 16

SUMMARY OF PESTICIDES DETECTED IN SURFACE WATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLING ID	SW-01	SW-02	SW-02 DUP	SW-03	SW-04	TOGS 1.1.1 Value
SAMPLING DATE	9/22/2010	9/22/2010	9/22/2010	9/22/2010	9/22/2010	
4,4'-DDD	0.032 J	<0.048	0.034 J	0.035 J	0.039 J	0.3
4,4'-DDE	0.035 J	<0.048	0.040 J	0.037 J	<0.057	0.2
4,4'-DDT	<0.048	<0.048	0.037 J	<0.051	<0.057	0.2
Dieldrin	**0.028 J**	*<0.048*	**0.053**	*<0.051*	*<0.057*	0.004
delta-BHC	*<0.048*	<0.048	0.028 J	*<0.051*	*<0.057*	0.04
Heptachlor	*<0.048*	*<0.048*	0.016 J	*<0.051*	*<0.057*	0.04

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "**Bold**" - Analytical result exceeds TOGS Value.
4. Italic - Analytical reporting limit is greater than the TOGS Value.
5. "J" - Estimated concentration.

Figures

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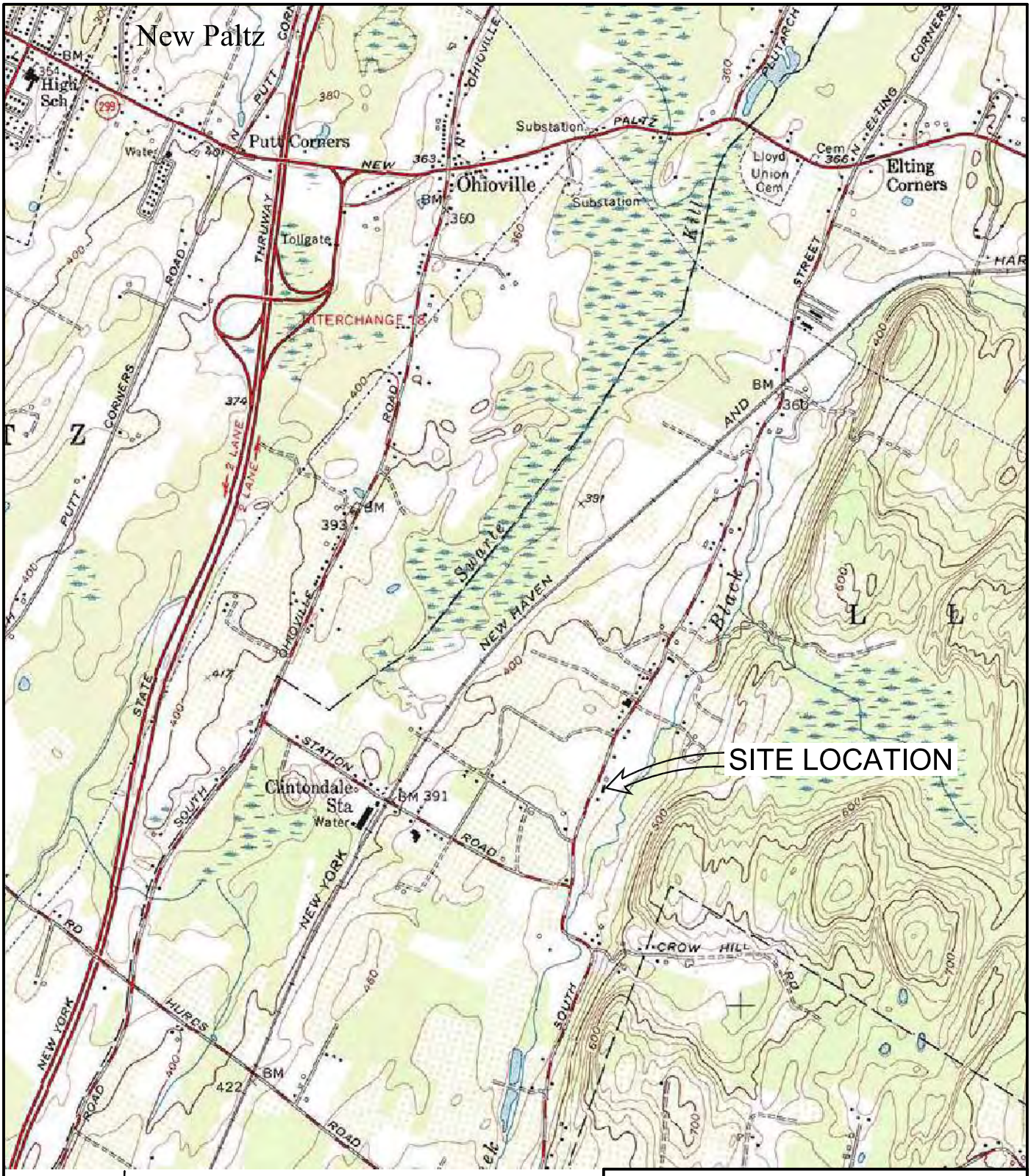

0 1000 2000 3000
SCALE IN FEET

MAP SOURCE:
USGS CLINTONDALE, NY
QUADRANGLE, 1957.

FORMER PPDLA FACILITY

Highland, New York

SITE LOCATION

EnviroGroup Limited Centennial, Colorado	FIGURE 1	APR 2010
	PL-0637	

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Black Creek

FORMER LAGOON AREA

FORMER PCE DEGREASER LOCATION

FORMER TCA DEGREASER LOCATION

AREA OF PETROLEUM REMEDIATION, SPILL CLOSED, 2009

EXISTING SEPTIC TANKS

RAISED SEPTIC SYSTEM

MAINTENANCE EASEMENT

MAINTENANCE EASEMENT

South Street

NOTES:

1. PROPERTY LINES AND ALL SAMPLE LOCATIONS ARE APPROXIMATE.

0 30 60 90

SCALE IN FEET

FORMER PPDLA FACILITY

Highland, New York

SITE PLAN

EnviroGroup Limited
Centennial, Colorado

FIGURE 2	JAN 2011
PL-0637	

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Black Creek

SED/SW-01
SED/SW-02
PIPE OUTFALL
SED/SW-03
SED/SW-04

406
407
408
409
410
411
412

405.65
SC-01

408.03
SC-07
SC-07B

408.41
SC-06
SC-06B

GROUNDWATER FLOW

FORMER LAGOON AREA

BACK PLATE BUILDING BURIED TRUCK AREA (TRUCK REMOVED, SPILL CLOSED)

FORMER PCE DEGREASER LOCATION

408.87
SC-02

MAINTENANCE EASEMENT

412.83
SC-05

DOMESTIC WELL

PROCESS WELL

FRONT YARD WELL

EXISTING SEPTIC TANKS

RAISED SEPTIC SYSTEM

MAINTENANCE EASEMENT

FORMER TCA DEGREASER LOCATION

AREA OF PETROLEUM REMEDIATION, SPILL CLOSED, 2009

412.35
SC-04
SC-04B

411.79
SC-03B
SC-03

South Street

LEGEND

- EXISTING MONITOR WELL LOCATION
- GROUND WATER CONTOUR AND ELEVATION ABOVE M.S.L. FROM OCTOBER 25, 2010 WATER LEVELS (DASHED WHERE INFERRED)
- SB-2 SOIL BORING OR TEMPORARY WELL FROM PREVIOUS INVESTIGATIONS

NOTES:

412

1. PROPERTY LINES AND ALL SAMPLE LOCATIONS ARE APPROXIMATE.

N

0 30 60 90
SCALE IN FEET

FORMER PPDLA FACILITY
Highland, New York

OVERBURDEN GROUNDWATER CONTOURS OCTOBER 25, 2010

EnviroGroup Limited
Centennial, Colorado

FIGURE 3	JAN 2011
PL-0637	

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Black Creek

SED/SW-01

PIPE OUTFALL

SED/SW-02

SED/SW-03

SED/SW-04

SC-01

SC-07

409.14

SC-07B

SC-06

409.89

SC-06B

408

409

410

411

412

GROUNDWATER FLOW

FORMER LAGOON AREA

BACK PLATE BUILDING BURIED TRUCK AREA (TRUCK REMOVED, SPILL CLOSED)

SC-05

SC-02

FORMER PCE DEGREASER LOCATION

DOMESTIC WELL

PROCESS WELL

FRONT YARD WELL

FORMER TCA DEGREASER LOCATION

EXISTING SEPTIC TANKS

AREA OF PETROLEUM REMEDIATION, SPILL CLOSED, 2009

RAISED SEPTIC SYSTEM

MAINTENANCE EASEMENT

MAINTENANCE EASEMENT

412.16

SC-04

SC-04B

411.64

SC-03B

SC-03

South Street

LEGEND

EXISTING MONITOR WELL LOCATION

412 GROUND WATER CONTOUR AND ELEVATION ABOVE M.S.L. FROM OCTOBER 26, 2010 WATER LEVELS (DASHED WHERE INFERRED)

NOTES:

1. PROPERTY LINES AND ALL SAMPLE LOCATIONS ARE APPROXIMATE.

0 30 60 90

SCALE IN FEET

FORMER PPDLA FACILITY

Highland, New York

SHALLOW BEDROCK GROUNDWATER CONTOURS OCTOBER 26, 2010

EnviroGroup Limited
Centennial, Colorado

FIGURE 4	JAN 2011
PL-0637	

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SED/SW-01

PIPE OUTFALL
SED/SW-02

SED/SW-03

Black Creek

SED/SW-04

SC-01

SC-07

SC-07B

SC-06

SC-06B

FORMER LAGOON AREA

BACK PLATE BUILDING BURIED TRUCK AREA (TRUCK REMOVED, SPILL CLOSED)

ISB-01

FORMER PCE DEGREASER LOCATION

MAINTENANCE EASEMENT

SC-02

SC-05

ISB-05

DOMESTIC WELL

ISB-04

EXISTING SEPTIC TANKS

MAINTENANCE EASEMENT

PROCESS WELL

ISB-02

RAISED SEPTIC SYSTEM

FORMER TCA DEGREASER LOCATION

FRONT YARD WELL

ISB-03

AREA OF PETROLEUM REMEDIATION, SPILL CLOSED, 2009

SC-04

SC-04B

SC-03B

SC-03

South Street

LEGEND

- MONITORING WELL/SOIL BORING LOCATION
- INTERIOR SOIL BORING
- SEDIMENT/SURFACE WATER SAMPLING IN BLACK CREEK OR PIPE OUTFALL

NOTES:

1. PROPERTY LINES, SW/SED SAMPLE LOCATIONS, AND INTERIOR SOIL BORING SAMPLE LOCATIONS ARE APPROXIMATE.

N

0 30 60 90
SCALE IN FEET

FORMER PPDLA FACILITY
Highland, New York

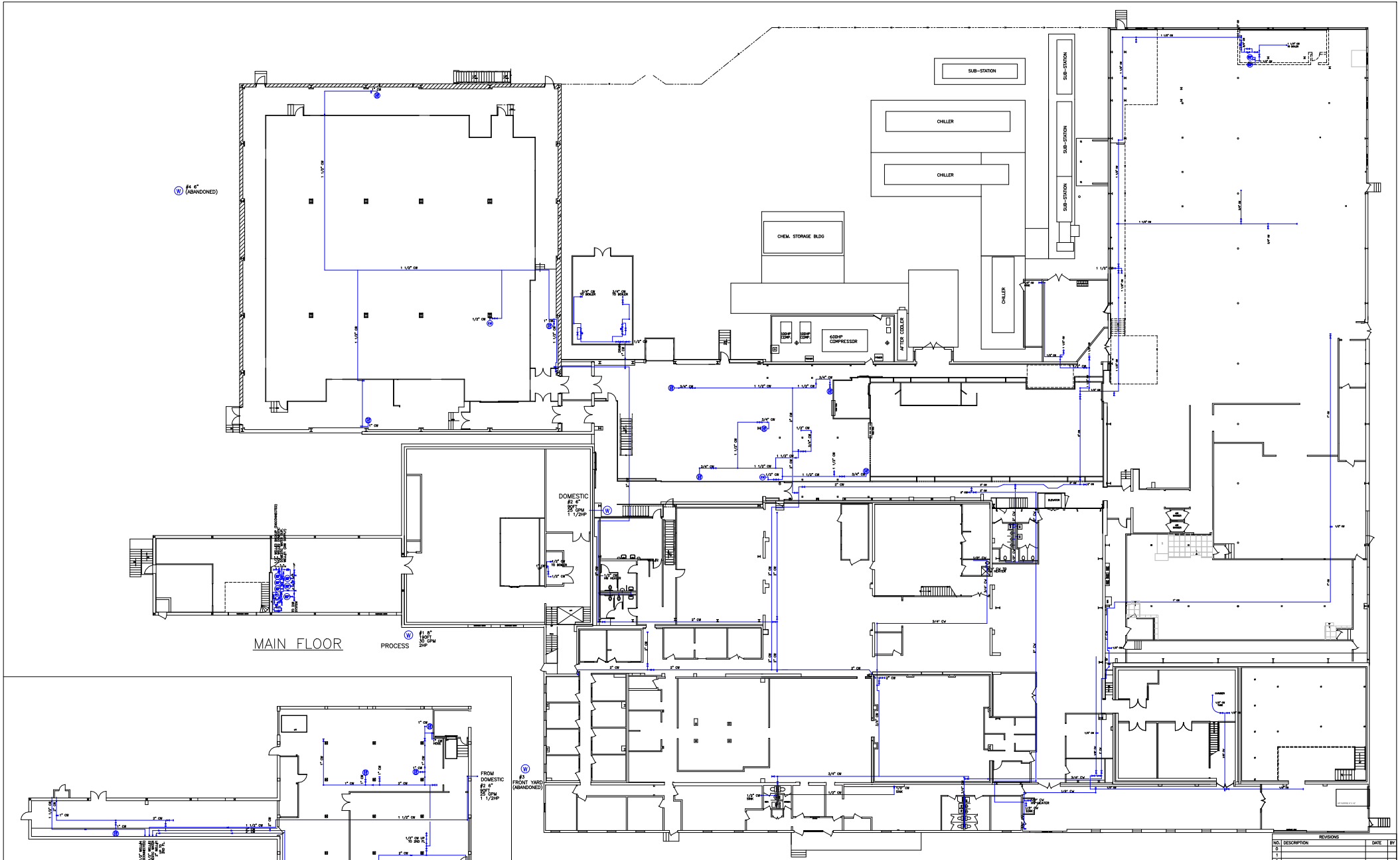
SITE CHARACTERIZATION SAMPLING LOCATIONS

EnviroGroup Limited
Centennial, Colorado

FIGURE 5	JAN 2011
PL-0637	

Appendix A

Domestic and Process Water Piping Diagrams



CONFIDENTIAL

REVISIONS

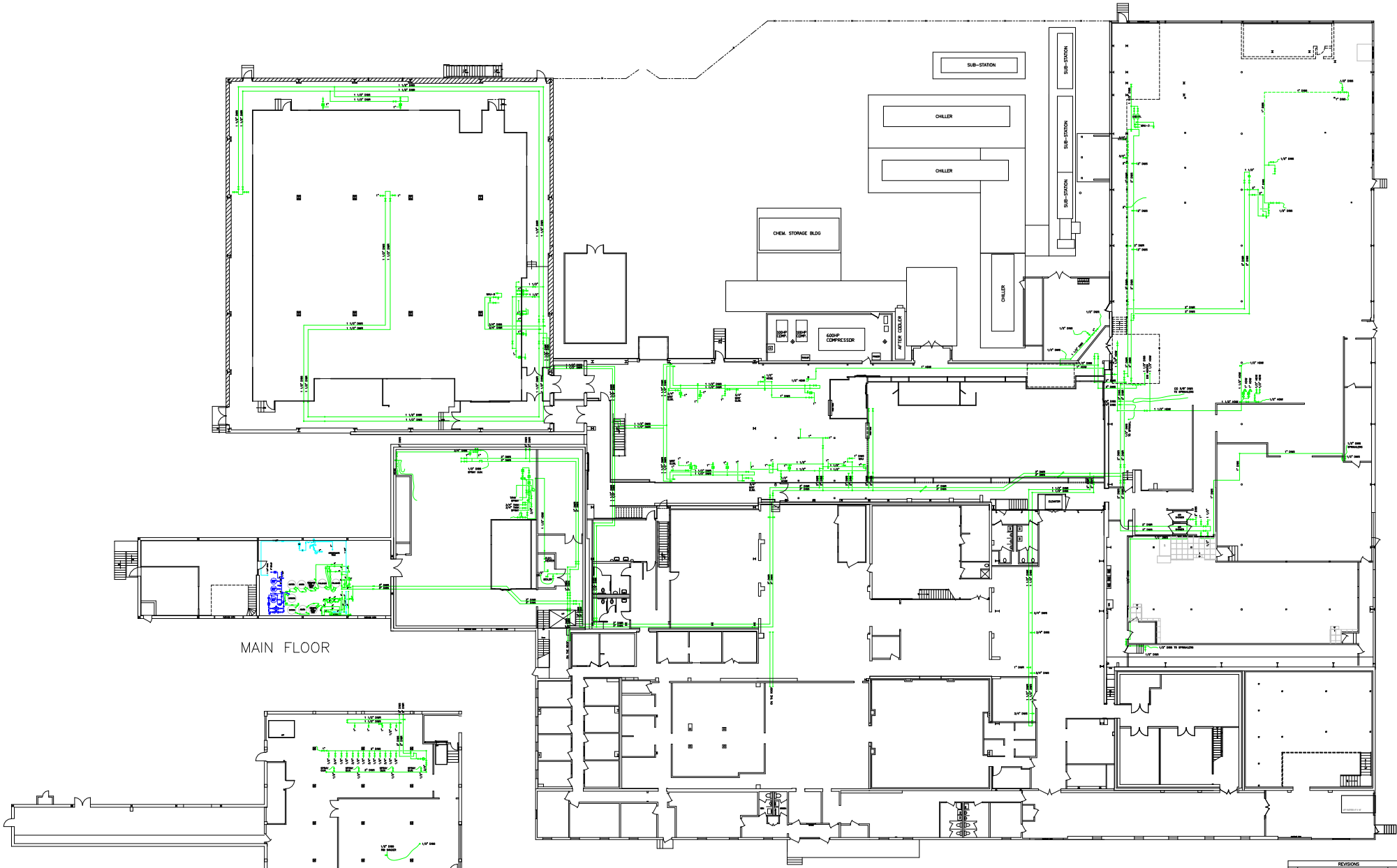
NO.	DESCRIPTION	DATE	BY
0			
1			
2			
3			
4			
5			
6			

KEY PLAN

Prism Solar Technologies Inc.
181 South Street
Highland, NY 12528
Phone: 845-883-4300
Fax: 845-883-4304

DOMESTIC WATER PIPING PLAN

DRAWN BY:	SCALE:	DRAWING NO.
DATE: 07/20/10	NONE SHT. 1 OF 1	DIW-1
PROJ NO.		



REVISIONS			
NO.	DESCRIPTION	DATE	BY
0			
1			
2			
3			
4			
5			
6			

KEY PLAN

Prism Solar Technologies Inc.
160 South Street
Highland, NY 12528
Phone: 845-883-4200
Fax: 845-883-4364

DI WATER
PIPING PLAN

DRAWN BY:	SCALE:	DRAWING NO.
DATE: 11-09-09	SHT. 1 OF 1	DIW-1
PROJ NO.		

CONFIDENTIAL

Appendix B

Previous Investigation Soil and Groundwater Analytical Results

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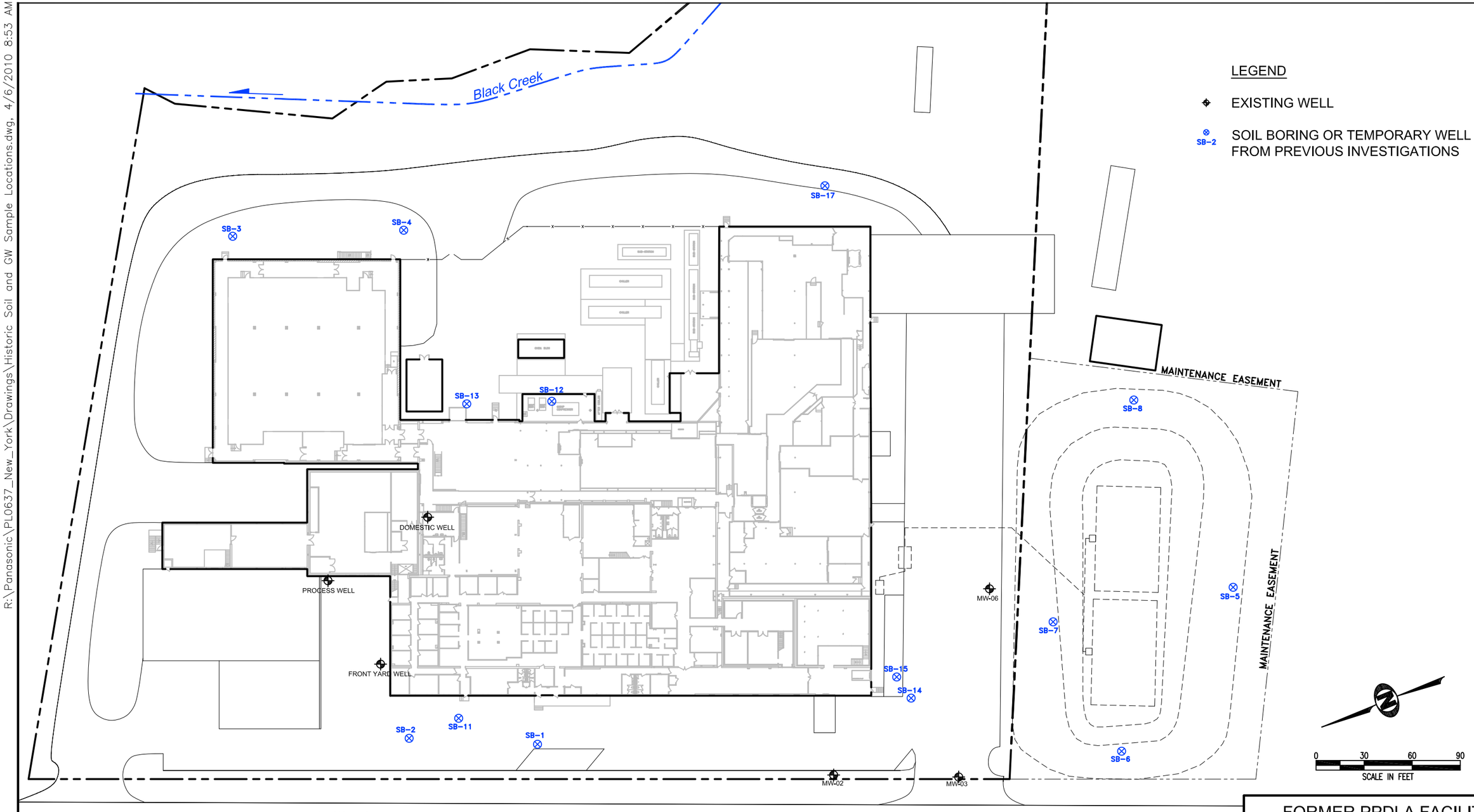


NOTES:

1. PROPERTY LINES AND ALL SAMPLE LOCATIONS ARE APPROXIMATE.
2. WELL AND SOIL BORING LOCATIONS FROM THE CHAZEN COMPANIES, "FIGURE 2 - SOIL BORING LOCATIONS MAP" DATED OCTOBER 2008.

FORMER PPDLA FACILITY

Highland, New York

HISTORIC SOIL AND GROUNDWATER SAMPLE LOCATIONS

EnviroGroup Limited, Centennial, Colorado	FIGURE 3	APR 2010
	PL-0637	

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	Front Yard Well	Potable Well	Process Well		B-1	B-14 (B-1 DUP)	G-1	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	2/3/2009	1/20/2009	1/20/2009	2/3/2009	10/27/1995		11/20/1995	
1,1,1-Trichloroethane	0.8	ND	ND	ND	-	-	-	5
1,1-Dichloroethane	ND	ND	0.5	0.7	-	-	-	5
1,2,4-Trimethylbenzene	ND	ND	ND	ND	-	-	-	5
1,3,5-Trimethylbenzene	ND	ND	ND	ND	-	-	-	5
Benzene	ND	ND	ND	ND	**3,300**	**2,600**	ND	1
Chlorobenzene	ND	ND	ND	ND	-	-	ND	5
Ethylbenzene	ND	ND	ND	ND	**2,900**	**2,700**	2.9	5
Isopropylbenzene	ND	ND	ND	ND	-	-	-	5
Naphthalene	-	-	-	-	-	-	-	10
n-Butylbenzene	ND	ND	ND	ND	-	-	-	5
n-Propylbenzene	ND	NO	ND	ND	-	-	-	5
p-Isopropyltoluene	ND	ND	ND	ND	-	-	-	5
sec-Butylbenzene	ND	ND	ND	ND	-	-	-	5
tert-Butylbenzene	ND	ND	ND	ND	-	-	-	5
Toluene	ND	ND	ND	ND	**16,000**	**14,000**	**5.9**	5
o-Xylene	ND	ND	ND	ND	-	-	-	5
p-&m-Xylenes	ND	ND	ND	ND	-	-	-	5
Xylene (Total)	-	-	-	-	**14,000**	**13,000**	3.2	5
TPH	-	-	-	-	92,000	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Potable Well sample collected from the Domestic Well.
10. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	G-2	G-3	G-6	G-7	G-8A	G-9	G-10	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	11/20/1995							
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	-	-	-	-	-	-	-	5
1,3,5-Trimethylbenzene	-	-	-	-	-	-	-	5
Benzene	Trace	ND	**TH**	**1,268**	**2.6**	NI	ND	1
Chlorobenzene	ND	ND	**3,516**	**1,144**	NI	ND	ND	5
Ethylbenzene	3.6	2.6	**3,932**	NI	**22.8**	**25**	ND	5
Isopropylbenzene	-	-	-	-	-	-	-	5
Naphthalene	-	-	-	-	-	-	-	10
n-Butylbenzene	-	-	-	-	-	-	-	5
n-Propylbenzene	-	-	-	-	-	-	-	5
p-Isopropyltoluene	-	-	-	-	-	-	-	5
sec-Butylbenzene	-	-	-	-	-	-	-	5
tert-Butylbenzene	-	-	-	-	-	-	-	5
Toluene	1.2	ND	**13,052**	**3,385**	**7.5**	**10.4**	ND	5
o-Xylene	-	-	-	-	-	-	-	5
p-&m-Xylenes	-	-	-	-	-	-	-	5
Xylene (Total)	1.9	1.7	**65,540**	**13,862**	**303**	**24**	ND	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	G-11	G-12	G-13A	G-14	G-15	G-16	G-17	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	11/20/1995							
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	-	-	-	-	-	-	-	5
1,3,5-Trimethylbenzene	-	-	-	-	-	-	-	5
Benzene	**14**	ND	ND	ND	ND	ND	ND	1
Chlorobenzene	ND	ND	ND	**57**	ND	ND	ND	5
Ethylbenzene	1.1	ND	ND	ND	ND	ND	ND	5
Isopropylbenzene	-	-	-	-	-	-	-	5
Naphthalene	-	-	-	-	-	-	-	10
n-Butylbenzene	-	-	-	-	-	-	-	5
n-Propylbenzene	-	-	-	-	-	-	-	5
p-Isopropyltoluene	-	-	-	-	-	-	-	5
sec-Butylbenzene	-	-	-	-	-	-	-	5
tert-Butylbenzene	-	-	-	-	-	-	-	5
Toluene	**16**	ND	ND	ND	**7**	ND	ND	5
o-Xylene	-	-	-	-	-	-	-	5
p-&m-Xylenes	-	-	-	-	-	-	-	5
Xylene (Total)	ND	ND	ND	ND	ND	ND	ND	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	G-18	G-19	MW-01					GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	11/20/1995		8/1996	10/1997	10/1998	10/1999	10/2000	
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	-	-	**160**	**35**	**36**	**88**	**19**	5
1,3,5-Trimethylbenzene	-	-	**42**	**5.8**	**5.8**	**16**	**6.4**	5
Benzene	ND	Trace	**97**	**37**	**20**	**25**	**5.5**	1
Chlorobenzene	ND	ND	-	-	-	-	-	5
Ethylbenzene	ND	ND	**56**	**17**	**12**	**19**	**7.2**	5
Isopropylbenzene	-	-	**14**	3	2.6	<5	1.6	5
Naphthalene	-	-	**190**	**12**	**30**	**28**	9	10
n-Butylbenzene	-	-	**69**	<1	**10**	<5	2.8	5
n-Propylbenzene	-	-	**23**	**7.6**	**4.1**	**10**	2	5
p-Isopropyltoluene	-	-	*<10*	**22**	1.9	<5	1.2	5
sec-Butylbenzene	-	-	**11**	3.5	2.6	<5	1.2	5
tert-Butylbenzene	-	-	-	**10**	<0.5	<5	<1	5
Toluene	ND	4.0	**35**	**8.6**	3.1	<5	<1	5
o-Xylene	-	-	**38**	**6.9**	**8.1**	**17**	-	5
p-&m-Xylenes	-	-	**82**	**15**	**14**	**17**	**10**	5
Xylene (Total)	ND	ND	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-01	MW-02						GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/2001	8/1996	10/1997	10/1998	10/1999	10/2000	10/2001	
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	**7.0**	<1	<1	<0.5	<1.0	<1	<1	5
1,3,5-Trimethylbenzene	3.2	<1	<1	<0.5	<1.0	<1	<1	5
Benzene	**4.0**	<1	<1	<0.5	<0.7	<1	<1	1
Chlorobenzene	-	-	-	-	-	-	-	5
Ethylbenzene	3.4	<1	<1	<0.5	<1.0	<1	<1	5
Isopropylbenzene	<1	<1	<1	<0.5	<1.0	<1	<1	5
Naphthalene	<1	<1	<1	<0.5	<11	<1	<1	10
n-Butylbenzene	<1	<1	<1	<0.5	<1.0	<1	<1	5
n-Propylbenzene	1	<1	<1	<0.5	<1.0	<1	<1	5
p-Isopropyltoluene	1.6	<1	<1	<0.5	<1.0	<1	<1	5
sec-Butylbenzene	<1	<1	<1	<0.5	<1.0	<1	<1	5
tert-Butylbenzene	<1	<1	<1	<0.5	<1.0	<1	<1	5
Toluene	<1	<1	<1	<0.5	<1.0	<1	<1	5
o-Xylene	-	<1	<1	<0.5	<1.0	<1	<1	5
p-&m-Xylenes	**5.9**	<1	<1	<0.5	<1.0	<1	<1	5
Xylene (Total)	-	-	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-03						MW-04	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	8/1996	10/1997	10/1998	10/1999	10/2000	10/2001	8/1996	
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	<1	<1	<0.5	<1.0	<1	<1	<1	5
1,3,5-Trimethylbenzene	<1	<1	<0.5	<1.0	<1	<1	<1	5
Benzene	<1	<1	<0.5	<0.7	<1	<1	<1	1
Chlorobenzene	-	-	-	-	-	-	-	5
Ethylbenzene	<1	<1	<0.5	<1.0	<1	<1	<1	5
Isopropylbenzene	<1	<1	<0.5	<1.0	<1	<1	<1	5
Naphthalene	<1	<1	<0.5	<10	<1	<1	<1	10
n-Butylbenzene	<1	<1	<0.5	<1.0	<1	<1	<1	5
n-Propylbenzene	<1	<1	<0.5	<1.0	<1	<1	<1	5
p-Isopropyltoluene	<1	<1	<0.5	<1.0	<1	<1	<1	5
sec-Butylbenzene	<1	<1	<0.5	<1.0	<1	<1	<1	5
tert-Butylbenzene	-	<1	<0.5	<1.0	<1	<1	-	5
Toluene	<1	<1	<0.5	<1.0	<1	<1	<1	5
o-Xylene	<1	<1	<0.5	<1.0	<1	<1	<1	5
p-&m-Xylenes	1.2	<1	<0.5	<1.0	<1	<1	<1	5
Xylene (Total)	-	-	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-04					MW-05		GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/1997	10/1998	10/1999	10/2000	10/2001	8/1996	10/1997	
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	<1	<0.5	<1.0	<1	<1	<1	<1	5
1,3,5-Trimethylbenzene	<1	<0.5	<1.0	<1	<1	<1	<1	5
Benzene	<1	<0.5	<0.7	<1	<1	<1	<1	1
Chlorobenzene	-	-	-	-	-	-	-	5
Ethylbenzene	<1	<0.5	<1.0	<1	<1	<1	<1	5
Isopropylbenzene	<1	<0.5	<1.0	<1	<1	<1	<1	5
Naphthalene	<1	<0.5	<10	<1	<1	<1	<1	10
n-Butylbenzene	<1	<0.5	<1.0	<1	<1	<1	<1	5
n-Propylbenzene	<1	<0.5	<1.0	<1	<1	<1	<1	5
p-Isopropyltoluene	<1	<0.5	<1.0	<1	<1	<1	<1	5
sec-Butylbenzene	<1	<0.5	<1.0	<1	<1	<1	<1	5
tert-Butylbenzene	<1	<0.5	<1.0	<1	<1	-	<1	5
Toluene	<1	<0.5	<1.0	<1	<1	<1	<1	5
o-Xylene	<1	<0.5	<1.0	<1	<1	<1	<1	5
p-&m-Xylenes	<1	<0.5	<1.0	<1	<1	<1	<1	5
Xylene (Total)	-	-	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-05				MW-06	MW-06 DUP	MW-06	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/1998	10/1999	10/2000	10/2001	8/1996		10/1997	
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	<0.5	<1.0	<1	<1	<1	<1	<1	5
1,3,5-Trimethylbenzene	<0.5	<1.0	<1	<1	<1	<1	<1	5
Benzene	<0.5	<0.7	<1	<1	<1	<1	<1	1
Chlorobenzene	-	-	-	-	-	-	-	5
Ethylbenzene	<0.5	<1.0	<1	<1	<1	<1	<1	5
Isopropylbenzene	<0.5	<1.0	<1	<1	<1	<1	<1	5
Naphthalene	<0.5	<10	<1	<1	<1	<1	<1	10
n-Butylbenzene	<0.5	<1.0	<1	<1	<1	<1	<1	5
n-Propylbenzene	<0.5	<1.0	<1	<1	<1	<1	<1	5
p-Isopropyltoluene	<0.5	<1.0	<1	<1	<1	<1	<1	5
sec-Butylbenzene	<0.5	<1.0	<1	<1	<1	<1	<1	5
tert-Butylbenzene	<0.5	<1.0	<1	<1	-	-	<1	5
Toluene	<0.5	<1.0	<1	<1	<1	<1	<1	5
o-Xylene	<0.5	<1.0	<1	<1	<1	<1	<1	5
p-&m-Xylenes	<0.5	<1.0	<1	<1	<1	<1	<1	5
Xylene (Total)	-	-	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-06 DUP	MW-06				PAN-SB-4-GW	PAN-SB-8-GW	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/1997	10/1998	10/1999	10/2000	10/2001	10/14/2008		
1,1,1-Trichloroethane	-	-	-	-	-	NA	ND	5
1,1-Dichloroethane	-	-	-	-	-	NA	ND	5
1,2,4-Trimethylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
1,3,5-Trimethylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
Benzene	<1	<0.5	<0.7	<1	<1	ND	ND	1
Chlorobenzene	-	-	-	-	-	NA	ND	5
Ethylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
Isopropylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
Naphthalene	<1	<0.5	<10	<1	<1	ND	ND	10
n-Butylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
n-Propylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
p-Isopropyltoluene	<1	<0.5	<1.0	<1	<1	ND	ND	5
sec-Butylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
tert-Butylbenzene	<1	<0.5	<1.0	<1	<1	ND	ND	5
Toluene	<1	<0.5	<1.0	<1	<1	ND	ND	5
o-Xylene	<1	<0.5	<1.0	<1	<1	ND	ND	5
p-&m-Xylenes	<1	<0.5	<1.0	<1	<1	ND	ND	5
Xylene (Total)	-	-	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PZ-02		PZ-04					GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	8/1996	10/1997	8/1996	10/1997	10/1998	10/1999	10/2000	
1,1,1-Trichloroethane	-	-	-	-	-	-	-	5
1,1-Dichloroethane	-	-	-	-	-	-	-	5
1,2,4-Trimethylbenzene	2.9	<1	<1	<1	<0.5	<1.0	<1	5
1,3,5-Trimethylbenzene	1.5	<1	<1	<1	<0.5	<1.0	<1	5
Benzene	**1.1**	<1	<1	<1	<0.5	<0.7	<1	1
Chlorobenzene	-	-	-	-	-	-	-	5
Ethylbenzene	3.4	<1	<1	<1	<0.5	<1.0	<1	5
Isopropylbenzene	<1	<1	<1	<1	<0.5	<1.0	<1	5
Naphthalene	<1	<1	<1	<1	<0.5	<10	<1	10
n-Butylbenzene	<1	<1	<1	<1	<0.5	<1.0	<1	5
n-Propylbenzene	1.1	<1	<1	<1	<0.5	<1.0	<1	5
p-Isopropyltoluene	<1	<1	<1	<1	<0.5	<1.0	<1	5
sec-Butylbenzene	<1	<1	<1	<1	<0.5	<1.0	<1	5
tert-Butylbenzene	-	<1	-	<1	<0.5	<1.0	<1	5
Toluene	<1	<1	<1	<1	<0.5	<1.0	<1	5
o-Xylene	<1	<1	<1	<1	<0.5	<1.0	<1	5
p-&m-Xylenes	3.9	<1	<1	<1	<0.5	<1.0	<1	5
Xylene (Total)	-	-	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 1

SUMMARY OF RESULTS FOR VOCs and TPH IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PZ-04	SB·11	SB-12	SB-13	SB-14	SB-15	SB-17	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/2001	1/16/2009						
1,1,1-Trichloroethane	-	ND	ND	ND	ND	ND	ND	5
1,1-Dichloroethane	-	ND	ND	ND	ND	ND	ND	5
1,2,4-Trimethylbenzene	<1	ND	ND	ND	110	ND	ND	5
1,3,5-Trimethylbenzene	<1	ND	ND	ND	ND	ND	ND	5
Benzene	<1	ND	ND	ND	ND	ND	ND	1
Chlorobenzene	-	ND	ND	ND	ND	ND	ND	5
Ethylbenzene	<1	ND	ND	ND	ND	ND	ND	5
Isopropylbenzene	<1	ND	ND	ND	ND	ND	ND	5
Naphthalene	<1	ND	ND	ND	ND	6	ND	10
n-Butylbenzene	<1	ND	ND	ND	ND	ND	ND	5
n-Propylbenzene	<1	ND	ND	ND	63	ND	ND	5
p-Isopropyltoluene	<1	ND	ND	ND	ND	ND	ND	5
sec-Butylbenzene	<1	ND	ND	ND	61	ND	ND	5
tert-Butylbenzene	<1	ND	ND	ND	ND	ND	ND	5
Toluene	<1	ND	ND	ND	ND	ND	ND	5
o-Xylene	<1	ND	ND	ND	ND	ND	ND	5
p-&m-Xylenes	<1	ND	ND	ND	ND	ND	ND	5
Xylene (Total)	-	-	-	-	-	-	-	5
TPH	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
4. "NA" - Standard not available; "ND" - Not detected.
5. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "NI"- Not identified but likely present and "TH" - Too high to quantify.
9. Full analyte list are available in the Appendices to the Site Characterization Work Plan.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-01						MW-02	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	8/1996	10/1997	10/1998	10/1999	10/2000	10/2001	8/1996	
Acenaphthene	**21 J**	2 J	2 J	<10	<5	<5	<10	20
Benzo(a)anthracene	*<40*	*<10*	*<10*	*<10*	*<5*	*<5*	-	0.002
Benzo(a)pyrene	<40	<10	<10	<10	<5	<5	-	MDL
Benzo(b)fluoranthene	*<40*	*<10*	*<10*	*<10*	*<5*	*<5*	-	0.002
Benzo(k)fluoranthene	*<40*	*<10*	*<10*	*<10*	*<5*	*<5*	-	0.002
Chyrsene	*<40*	*<10*	*<10*	*<10*	*<5*	*<5*	-	0.002
Fluoranthene	<40	<10	<10	<10	<5	<5	-	50
Fluorene	**22 J**	2 J	3 J	<10	<5	<5	<10	50
Naphthalene	**130**	-	-	-	-	-	<10	10
Phenanthrene	44	3 J	3 J	18	<5	<5	<10	50
Pyrene	<40	<10	<10	<10	<5	<5	-	50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-02					MW-03		GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/1997	10/1998	10/1999	10/2000	10/2001	8/1996	10/1997	
Acenaphthene	<10	<10	<11	<5	<5	<10	<10	20
Benzo(a)anthracene	-	<10	<11	<5	<5	-	-	0.002
Benzo(a)pyrene	-	<10	<11	<5	<5	-	-	MDL
Benzo(b)fluoranthene	-	<10	<11	<5	<5	-	-	0.002
Benzo(k)fluoranthene	-	<10	<11	<5	<5	-	-	0.002
Chyrsene	-	<10	<11	<5	<5	-	-	0.002
Fluoranthene	-	<10	<11	<5	<5	-	-	50
Fluorene	<10	<10	<11	<5	<5	<10	<10	50
Naphthalene	-	-	-	-	-	<10	-	10
Phenanthrene	<10	<10	<11	<5	<5	<10	<10	50
Pyrene	-	<10	<11	<5	<5	-	-	50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-03				MW-04			GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/1998	10/1999	10/2000	10/2001	8/1996	10/1997	10/1998	
Acenaphthene	<10	<10	<5	<5	<10	<10	<10	20
Benzo(a)anthracene	*<10*	*<10*	*<5*	*<5*	-	-	*<10*	0.002
Benzo(a)pyrene	<10	<10	<5	<5	-	-	<10	MDL
Benzo(b)fluoranthene	*<10*	*<10*	*<5*	*<5*	-	-	*<10*	0.002
Benzo(k)fluoranthene	*<10*	*<10*	*<5*	*<5*	-	-	*<10*	0.002
Chyrsene	*<10*	*<10*	*<5*	*<5*	-	-	*<10*	0.002
Fluoranthene	<10	<10	<5	<5	-	-	<10	50
Fluorene	<10	<10	<5	<5	<10	<10	<10	50
Naphthalene	-	-	-	-	<10	-	-	10
Phenanthrene	<10	<10	<5	<5	<10	<10	<10	50
Pyrene	<10	<10	<5	<5	-	-	<10	50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-04			MW-05				GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/1999	10/2000	10/2001	8/1996	10/1997	10/1998	10/1999	
Acenaphthene	<10	<5	<5	<10	<10	<10	<10	20
Benzo(a)anthracene	<10	<5	<5	-	-	2 J	<10	0.002
Benzo(a)pyrene	<10	<5	<5	-	-	2 J	1 J	MDL
Benzo(b)fluoranthene	<10	<5	<5	-	-	5 J	3 J	0.002
Benzo(k)fluoranthene	<10	<5	<5	-	-	4 J	3 J	0.002
Chyrsene	<10	<5	<5	-	-	4 J	2 J	0.002
Fluoranthene	<10	<5	<5	-	-	10	4 J	50
Fluorene	<10	<5	<5	<10	<10	<10	<10	50
Naphthalene	-	-	-	<10	-	-	-	10
Phenanthrene	<10	<5	<5	<10	<10	4 J	4 J	50
Pyrene	<10	<5	<5	-	-	8 J	3 J	50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-05		MW-06	MW-06 DUP	MW-06	MW-06 DUP	MW-06	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/2000	10/2001	8/1996		10/1997		10/1998	
Acenaphthene	<5	<5	<10	<10	<10	<10	<10	20
Benzo(a)anthracene	*<5*	*<5*	-	-	-	-	*<10*	0.002
Benzo(a)pyrene	<5	<5	-	-	-	-	<10	MDL
Benzo(b)fluoranthene	**5.8**	*<5*	-	-	-	-	*<10*	0.002
Benzo(k)fluoranthene	*<5*	*<5*	-	-	-	-	*<10*	0.002
Chyrsene	*<5*	*<5*	-	-	-	-	*<10*	0.002
Fluoranthene	<5	<5	-	-	-	-	<10	50
Fluorene	5.5	<5	<10	<10	<10	<10	<10	50
Naphthalene	-	-	<10	<10	-	-	-	10
Phenanthrene	<5	<5	<10	<10	<10	<10	<10	50
Pyrene	<5	<5	-	-	-	-	<10	50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-06			PAN-SB-4-GW	PAN-SB-8-GW	PZ-02		GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/1999	10/2000	10/2001	10/14/2008		8/1996	10/1997	
Acenaphthene	<11	<5	<5	ND	ND	<10	<10	20
Benzo(a)anthracene	*<11*	*<5*	*<5*	ND	ND	-	-	0.002
Benzo(a)pyrene	<11	<5	<5	ND	ND	-	-	MDL
Benzo(b)fluoranthene	*<11*	*<5*	*<5*	ND	ND	-	-	0.002
Benzo(k)fluoranthene	*<11*	*<5*	*<5*	ND	ND	-	-	0.002
Chyrsene	*<11*	*<5*	*<5*	ND	ND	-	-	0.002
Fluoranthene	2 J	<5	<5	ND	ND	-	-	50
Fluorene	<11	<5	<5	ND	ND	<10	<10	50
Naphthalene	-	-	-	ND	ND	<10	-	10
Phenanthrene	1 J	<5	<5	ND	ND	<10	<10	50
Pyrene	2 J	<5	<5	ND	ND	-	-	50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PZ-04						SB-11	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	8/1996	10/1997	10/1998	10/1999	10/2000	10/2001	1/16/2009	
Acenaphthene	<10	<10	<10	<10	<5	<5	ND	20
Benzo(a)anthracene	-	-	*<10*	*<10*	*<5*	*<5*	ND	0.002
Benzo(a)pyrene	-	-	<10	<10	<5	<5	ND	MDL
Benzo(b)fluoranthene	-	-	*<10*	*<10*	*<5*	*<5*	ND	0.002
Benzo(k)fluoranthene	-	-	*<10*	*<10*	*<5*	*<5*	ND	0.002
Chyrsene	-	-	*<10*	*<10*	*<5*	*<5*	ND	0.002
Fluoranthene	-	-	<10	<10	<5	<5	ND	50
Fluorene	<10	<10	<10	<10	<5	<5	ND	50
Naphthalene	<10	-	-	-	-	-	ND	10
Phenanthrene	<10	<10	<10	<10	<5	<5	ND	50
Pyrene	-	-	<10	<10	<5	<5	ND	50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 2

SUMMARY OF RESULTS FOR SVOCs IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	SB-12	SB-13	SB-14	SB-15	SB-17			GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	1/16/2009							
Acenaphthene	ND	ND	ND	ND	ND			20
Benzo(a)anthracene	ND	ND	ND	ND	ND			0.002
Benzo(a)pyrene	ND	ND	ND	ND	ND			MDL
Benzo(b)fluoranthene	ND	ND	ND	ND	ND			0.002
Benzo(k)fluoranthene	ND	ND	ND	ND	ND			0.002
Chyrsene	ND	ND	ND	ND	ND			0.002
Fluoranthene	ND	ND	ND	ND	ND			50
Fluorene	ND	ND	ND	ND	ND			50
Naphthalene	ND	ND	ND	ND	ND			10
Phenanthrene	ND	ND	ND	ND	ND			50
Pyrene	ND	ND	ND	ND	ND			50

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "SVOCs" - Semi-Volatile Organic Compounds.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.
5. "-" - Not analyzed or not available.
6. "J" - Estimated.
7. "MDL" - Method detection limit.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 3

SUMMARY OF RESULTS FOR PESTICIDES IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PAN-SB-4-GW	PAN-SB-8-GW	SB-17	GROUNDWATER STANDARD (TOGS 1.1.1)
SAMPLING DATE	10/14/2008		1/16/2009	
Dieldrin	ND	**0.041**	ND	0.004

NOTES:

1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
4. "ND" - Not detected.

TABLE 4

SUMMARY OF RESULTS FOR METALS IN GROUNDWATER SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	G-3	G-6	G-8A	PAN-SB-4-GW	PAN-SB-8-GW	SB-17	GROUNDWATER STANDARD (TOGS 1.1.1) (ppb)
SAMPLING DATE	11/20/1995			10/14/2008		1/16/2009	
Aluminum	-	-	-	**819**	**6,100**	-	100
Antimony	-	-	-	ND	ND	-	3
Arsenic	-	-	-	ND	ND	**59**	25
Barium	-	-	-	68.1	171	-	1,000
Beryllium	-	-	-	ND	ND	-	3
Cadmium	-	-	-	ND	ND	-	5
Calcium	-	-	-	106,000	50,800	-	NA
Chromium	-	-	-	ND	13.5	-	50
Cobalt	-	-	-	ND	8	-	NA
Copper	-	-	-	ND	13.1	-	200
Iron	-	-	-	**14,200**	**4,650**	-	300
Lead	ND	16.6	ND	5.4	21.8	**546**	25
Mercury	-	-	-	ND	ND	-	0.7
Mangnesium	-	-	-	14,800	9,440	-	35,000
Manganese	-	-	-	**4,560**	**3,980**	-	300
Nickel	-	-	-	ND	13.8	-	100
Potassium	-	-	-	1,680	7,490	-	NA
Selenium	-	-	-	ND	ND	-	10
Silver	-	-	-	ND	ND	-	50
Sodium	-	-	-	9,880	**98,000**	-	20,000
Thallium	-	-	-	ND	ND	-	0.5
Vanadium	-	-	-	ND	10.1	-	NA
Zinc	-	-	-	ND	29.3	-	2,000

NOTES:
1. All values are expressed in micrograms per liter (ug/l).
2. "TOGS 1.1.1" - Technical & Operational Guidance Series 1.1.1 entitled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitions", New York State Department of Environmental Conservation, June 1998 Edition.
3. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
4. "ND" - Not dectected.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.

TABLE 5

SUMMARY OF RESULTS FOR VOCs and TPH IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	B-1A/S-2	B-3/S-2	B-3/S-3	G-5	G-12	MW-1A	MW-1A (DUP)	MW-1B	INDUSTRIAL SOIL CLEANUP OBJECTIVE
SAMPLE DEPTH (ft bgs)	4 to 6	4 to 6	8 to 10	8 to 10	8 to 10	4 to 6	4 to 6	10 to 12	
SAMPLING DATE	10/27/1995			11/20/1995		8/2006			
1,2,4-Trimethylbenzene	-	-	-	-	-	1,500	2,300	87,000	380,000
1,3,5-Trimethylbenzene	-	-	-	-	-	610	640	29,000	380,000
Benzene	630 J	<26	<5	2,198	ND	*<250*	*<250*	*<1200*	89,000
Chlorobenzene	-	-	-	997	ND	-	-	-	1,000,000
Ethylbenzene	9,200	260	<5	3,258	ND	340	540	25,000	780,000
Naphthalene	-	-	-	-	-	190	1900	66,000	1,000,000
n-Butylbenzene	-	-	-	-	-	2,800	4,500	140,000	NA
n-Propylbenzene	-	-	-	-	-	960	1,300	29,000	1,000,000
p-Isopropyltoluene	-	-	-	-	-	<250	1,200	*<12000*	NA
sec-Butylbenzene	-	-	-	-	-	390	700	19,000	1,000,000
o-Xylene	-	-	-	-	-	<250	<250	14,000	NA
p-&m-Xylenes	-	-	-	-	-	300	320	19,000	NA
Toluene	5,800	<26	<5	17,188	ND	<250	<250	*<12000*	1,000,000
Xylenes (Total)	40,000	1000	<5	67,700	ND	-	-	-	1,000,000
TPH	490,000	NA	NA	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per kilogram (ug/kg).
2. "ft bgs" - Feet below ground surface.
3. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
4. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
5. "NA" - Not analyzed or applicable; "ND" - Not detected.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 5

SUMMARY OF RESULTS FOR VOCs and TPH IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-2A	MW-2B	MW-5A	MW-5B	MW-6A	MW-6B	INDUSTRIAL SOIL CLEANUP OBJECTIVE
SAMPLE DEPTH (ft bgs)	0 to 2	8 to 10	0 to 2	6 to 8	0 to 2	2 to 4	
SAMPLING DATE	8/2006						
1,2,4-Trimethylbenzene	<1	3,500	1.9	33	<1	<1	380,000
1,3,5-Trimethylbenzene	<1	910	1.1	<5	<1	<1	380,000
Benzene	<1	*<500*	<1	<5	<1	<1	89,000
Chlorobenzene	-	-	-	-	-	-	1,000,000
Ethylbenzene	<1	1,000	<1	<5	<1	<1	780,000
Naphthalene	<1	2,500	32	54	<1	<1	1,000,000
n-Butylbenzene	<1	6,200	<1	9.2	<1	<1	NA
n-Propylbenzene	<1	1,800	<1	6.2	<1	<1	1,000,000
p-Isopropyltoluene	<1	5,100	<1	<5	<1	<1	NA
sec-Butylbenzene	<1	1,200	5.5	<5	<1	<1	1,000,000
o-Xylene	<1	<500	<1	38	<1	<1	NA
p-&m-Xylenes	<1	570	<1	<5	<1	<1	NA
Toluene	<1	<500	<1	<5	<1	<1	1,000,000
Xylenes (Total)	-	-	-	-	-	-	1,000,000
TPH	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per kilogram (ug/kg).
2. "ft bgs" - Feet below ground surface.
3. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
4. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
5. "NA" - Not analyzed or applicable; "ND" - Not detected.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 5

SUMMARY OF RESULTS FOR VOCs and TPH IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PAN-SB-1	PAN-SB-2	PAN-SB-3	PAN-SB-4	PAN-SB-5	PAN-SB-6	PAN-SB-7	PAN-SB-8	SB-14	INDUSTRIAL SOIL CLEANUP OBJECTIVE
SAMPLE DEPTH (ft bgs)	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	8 to 12	
SAMPLING DATE	10/14/2008								1/16/2009	
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	4,200	380,000
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	380,000
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	89,000
Chlorobenzene	-	-	NA	NA	ND	ND	ND	ND	-	1,000,000
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	780,000
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	4,500	1,000,000
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,400	NA
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	650	1,000,000
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	760	NA
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,100	1,000,000
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-&m-Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000,000
Xylenes (Total)	ND	ND	-	-	-	-	-	-	ND	1,000,000
TPH	-	-	-	-	-	-	-	-	-	NA

NOTES:

1. All values are expressed in micrograms per kilogram (ug/kg).
2. "ft bgs" - Feet below ground surface.
3. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
4. "VOCs" - Volatile Organic Compounds; "TPH" - Total Petroleum Hydrocarbons.
5. "NA" - Not analyzed or applicable; "ND" - Not detected.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 6

SUMMARY OF RESULTS FOR SVOCs IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	B-1A/S-2	B-3/S-2	B-3/S-3	MW-1A	MW-1A (DUP)	MW-1B	MW-2A	INDUSTRIAL SOIL CLEANUP OBJECTIVE
SAMPLE DEPTH (ft bgs)	4 to 6	4 to 6	8 to 10	4 to 6	4 to 6	10 to 12	0 to 2	
SAMPLING DATE	10/27/1995			8/1996				
Acenaphthene	-	-	-	350 J	390 J	7600 J	<330	1,000,000
Fluorene	-	-	-	760 J	740 J	13000 J	<330	1,000,000
Naphthalene	4300	NA	NA	600 J	720 J	22000 J	<330	1,000,000
Phenanthrene	40 J	NA	NA	1100 J	1100 J	19000 J	<330	1,000,000

NOTES:

1. All values are expressed in micrograms per kilogram (ug/kg).
2. "ft bgs" - Feet below ground surface.
3. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
4. "SVOCs" - Semi-Volatile Organic Compounds.
5. "NA" - Not analyzed or applicable; "ND" - Not detected.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 6

SUMMARY OF RESULTS FOR SVOCs IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	MW-2B	MW-5A	MW-5B	MW-6A	MW-6B	PAN-SB-1	PAN-SB-2	INDUSTRIAL SOIL CLEANUP OBJECTIVE
SAMPLE DEPTH (ft bgs)	8 to 10	0 to 2	6 to 8	0 to 2	2 to 4	4 to 8	4 to 8	
SAMPLING DATE	8/1996					10/14/2008		
Acenaphthene	<660	<330	<820	<330	<330	ND	ND	1,000,000
Fluorene	<660	<330	140 J	<330	<330	ND	ND	1,000,000
Naphthalene	<660	91 J	110 J	34 J	<330	ND	ND	1,000,000
Phenanthrene	<660	60 J	230 J	<330	<330	ND	ND	1,000,000

NOTES:

1. All values are expressed in micrograms per kilogram (ug/kg).
2. "ft bgs" - Feet below ground surface.
3. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
4. "SVOCs" - Semi-Volatile Organic Compounds.
5. "NA" - Not analyzed or applicable; "ND" - Not detected.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 6

SUMMARY OF RESULTS FOR SVOCs IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PAN-SB-3	PAN-SB-4	PAN-SB-5	PAN-SB-6	PAN-SB-7	PAN-SB-8	SB-14	INDUSTRIAL SOIL CLEANUP OBJECTIVE
SAMPLE DEPTH (ft bgs)	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	8 to 12	
SAMPLING DATE	10/14/2008						1/16/2009	
Acenaphthene	ND	ND	ND	ND	ND	ND	340	1,000,000
Fluorene	ND	ND	ND	ND	ND	ND	690	1,000,000
Naphthalene	ND	ND	ND	ND	ND	ND	1,100	1,000,000
Phenanthrene	ND	ND	ND	ND	ND	ND	1,100	1,000,000

NOTES:

1. All values are expressed in micrograms per kilogram (ug/kg).
2. "ft bgs" - Feet below ground surface.
3. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
4. "SVOCs" - Semi-Volatile Organic Compounds.
5. "NA" - Not analyzed or applicable; "ND" - Not detected.
6. "-" - Not analyzed or not available.
7. "J" - Estimated.
8. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.
9. "*Italic*" - Analytical reporting limit is greater than the Groundwater Quality Standard.

TABLE 7

SUMMARY OF RESULTS FOR PESTICIDES IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PAN-SB-3	PAN-SB-4	PAN-SB-5	PAN-SB-6	PAN-SB-7	PAN-SB-8	INDUSTRIAL SOIL CLEANUP OBJECTIVE
SAMPLE DEPTH (ft bgs)	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	
SAMPLING DATE	10/14/2008						
4,4'-DDD	68.5	32.4	ND	35.7	ND	172	180,000
4,4'-DDE	76.3	46.7	19.1	18.8	73.5	264	120,000
Dieldrin	ND	ND	ND	ND	ND	8.4	2,800

NOTES:
1. All values are expressed in micrograms per kilogram (ug/kg).
2. "ft bgs" - Feet below ground surface.
3. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
4. "NA" - Not analyzed or applicable; "ND" - Not detected.

TABLE 8

SUMMARY OF RESULTS FOR METALS IN SOIL SAMPLES

Former PPDLA Facility
Highland, New York

SAMPLE ID	PAN-SB-3	PAN-SB-4	PAN-SB-5	PAN-SB-6	PAN-SB-7	PAN-SB-8	INDUSTRIAL SOIL CLEANUP OBJECTIVE	EASTERN USA BACKGROUND
SAMPLE DEPTH (ft bgs)	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8	4 to 8		
SAMPLING DATE	10/14/2008							
Aluminum	11,800	11,100	12,400	12,300	11,700	11,600	NA	33,000
Antimony	2.71	1.68	2.59	3.2	3.24	2.89	NA	NA
Arsenic	7.13	3.37	6.57	5.12	6.86	5.25	16 or SB	3 - 12
Barium	54.3	62.2	42.3	107	83.3	57.3	10,000	15 - 600
Beryllium	ND	ND	ND	ND	ND	ND	2,700	0 - 1.75
Cadmium	ND	ND	ND	ND	ND	ND	60.0	0.1 - 1
Calcium	6,680	1,020	826	2,180	2,200	1,260	NA	130 - 35,000
Chromium	16	12.6	16.1	17.6	16.5	16.1	800	1.5 - 40
Cobalt	9.59	6.25	11.1	11.3	9.75	10.3	NA	2.5 - 60
Copper	25.3	11.1	21.9	21.6	22.9	24.3	10,000	1 - 50
Iron	19,800	14,000	21,200	21,500	22,600	21,800	NA	2,000 - 550,000
Lead	28.4	23	15.7	13.2	10.5	20	3,900	*
Magnesium	4,230	2,740	3,720	3,750	3,870	4,760	NA	100 - 5,000
Manganese	470	223	392	970	774	940	10,000	50 - 5,000
Mercury	ND	ND	ND	ND	ND	ND	5.7	0.001 - 0.2
Nickel	18.3	12	16.9	23.6	22.3	17.9	10,000	0.5 - 25
Potassium	764	462	554	824	968	653	NA	8,500 - 43,000
Selenium	ND	ND	ND	ND	ND	ND	6,800	0.1 - 3.9
Silver	ND	ND	ND	ND	ND	ND	6,800	NA
Sodium	77.4	57.7	46.7	80.3	110	129	NA	6,000 - 8,000
Thallium	ND	ND	ND	ND	ND	ND	NA	NA
Vanadium	16	15.7	17.8	18.7	17	16	NA	1 - 300
Zinc	76.5	52.5	57.3	73	76.1	75.4	10,000	9 - 50

NOTES:

1. All values are expressed in milligrams per kilogram (mg/kg).
2. "ft bgs" - Feet below ground surface.
3. "SB" - Site background; "NA" - Not available; "ND" - Not detected.
4. Industrial Soil Cleanup Objective from Table 375-6.8(b) of NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.
5. * - Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 mg/kg.
6. "**Bold**" - Analytical result exceeds Groundwater Quality Standard.

Appendix C

Borehole Logs

BOREHOLE LOG

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO.: PL-0637

BH NO. SC-01
PAGE 1 OF 4

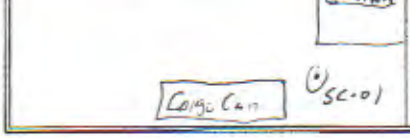
NORTH	DRILLER C.2.G	DATE START 9/13/10
EAST	RIG 6620 DT Geoprobe	DATE FINISH 9/14/10
GRD ELEV.	BITS / FLUIDS	TOTAL DEPTH 37' (well is 5')
TOC ELEV.	LOGGED BY Lovenduski	WATER DEPTH ~5' bgs

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube MacroCore

SAMPLER SPECIFICATIONS:
Length 5
O.D. 2.5
I.D. 2"
Material SS
Liner Acetate
Other

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: Gravel / SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ PID ☐ BG	HS	Core
								0		
0							15" Brown med dense fine SAND, some coarse gravel, trace silt, dry.			0
1									0	
							25" Lt. brown dense fine SAND, some silt, trace fine gravel, dry			0
2										
3	NA	1 0-5	MC	40"/60"	NA				0	0
4										0
5										0
							21" Grey loose-med. dense medium SAND, some silt, trace fine gravel, WET			0
6									0	
							25" Grey, loose, fine SAND, trace coarse sand and silt, wet			0
7										
	NA	2 5-10	MC	46"/60"	NA					0
8									0	0
9										
										0
10										

LOCATION SKETCH



DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: Cloudy, mid 70's F

LOG STATUS:
PRELIMINARY: E Lovenduski FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-01
PAGE 2 OF 4

NORTH	DRILLER C.2.G		DATE START 9/13/10
EAST	RIG 6620DT		DATE FINISH 9/14/10
GRD ELEV.	BITS	FLUIDS	TOTAL DEPTH
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube Macrocore

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material S.S.
Liner Acetate
Other —

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: GRAVEL / SOIL/ROCK DESCRIPTION	SOIL VAPOR PID☒ FID☐ BG	HS	Core
10								0		
11							42" Grey loose Fine SAND, trace coarse sand and silt, wet.			0
12	NA	3 10-15	MC	60"/60"	NA		18" olive grey/brown loose fine SAND, wet.		0	0
13										0
14									0	0
15										0
16							60" SAME AS ABOVE. WET.			0
17	NA	4 15-20	MC	60"/60"	NA				0	0
18										0
19										0
20										0

LOCATION SKETCH: pg1.

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>60	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: pg1.

LOG STATUS:
PRELIMINARY: E Lovenduski FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-01
PAGE 3 OF 4

NORTH	DRILLER C.2.G		DATE START 9/13/10
EAST	RIG 6620DT		DATE FINISH 9/14/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH
TOC ELEV.	LOGGED BY Lovendusk;		WATER DEPTH

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube, Macro Core

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material S.S.
Liner Acetate
Other

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: Gravel / SOIL/ROCK DESCRIPTION	SOIL PID BG	SOIL PID HS	VAPOR FID Core
20										
21							16" DK. grey med stiff SILT, little clay, trace fine gravel, wet.			0
22	NA	5 / 22-25	MC	23/60"	NA		5" Brown md dense, md SAND, some coarse gravel, wet.			0
23										0
24										0
25										0
26							20" Brown loose (GP) Fine GRAVEL, little med sand, wet.			0
27	NA	6 / 25-30	MC	20"/60"	NA					0
28										0
29										0
30										0

LOCATION SKETCH: Seeps

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: Seeps

LOG STATUS:
PRELIMINARY: S
FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-01
PAGE 4 OF 4

NORTH	DRILLER C.2.G		DATE START 9/13/10
EAST	RIG CL20		DATE FINISH 9/14/10
GRD ELEV.	BITS	FLUIDS	TOTAL DEPTH 37'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH ~5'

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube Macro Core

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material St. Steel
Liner Acetate
Other

SURFACE CONDITION: Gravel

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID[X] FID[ ] BG	HS	Core
30								0		
31							28" Brown loose fine rounded gravel, little silt, trace fine sand, wet.			0
32	NA	7/ S-35	MC	28"/60"	NA				0	0
33										0
34									0	0
35										0
36	NA	8/ 35-37	MC	13"/24"	NA		3" Seam as above 10" Grey shale fragments, some silt, wet.		0	0
37							Refusal (top of bedrock) @ 37' bgs.			
8							Overdrilled w/ 4.25" HSAs to ~17' bgs. Set 2" well at ~15.5' bgs. 0.010" Screen 15.5-5.5'			
9							#1 Sand 15.5-3.5'			
10							Bentonite 3.5-grade.			

LOCATION SKETCH: See pg 1

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: See pg 1.

LOG STATUS:
PRELIMINARY:
FINAL:

EnviroGroup Limited
Centennial, Colorado

BOREHOLE LOG

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BH NO. SC-02
PAGE 1 OF 2

NORTH	DRILLER C.2G	DATE START 9/15/10
EAST	RIG 6610 DT	DATE FINISH 9/15/10
GRD ELEV.	BITS — FLUIDS —	TOTAL DEPTH 9.7'
TOC ELEV.	LOGGED BY Lovenduski	WATER DEPTH 16'

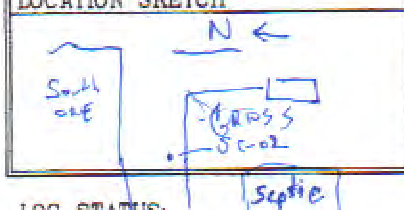
SAMPLE TYPES:	SAMPLER SPECIFICATIONS:	
CT Cuttings / WS Wash	Length 5'	Material SS
SS Split Spoon / NX NX Core	O.D. 2.5"	Liner Acetate
DC Dry Core / CS Continuous Sampler	I.D. 2"	Other —
Other: Dual Tube MacroCore		

SURFACE CONDITION: Asphalt

SOIL VAPOR: PID ☑ FID ☐

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	BG	HS	Core
								0		
0							3" Asphalt			0
1							20" Dk. brown med dense fine-med SAND, some coarse gravel, trace silt, dry.		0	0
2	NA	1 0-5	MC	36"/60"	NA		13" Olive grey med dense SILTY SAND, little fine gravel, trace clay, moist.			0
3									0	0
4										0
5							27" Same as above, moist. (1)		0	0
6							4" Grey loose GRAVEL (mostly coarse), trace silt, dry.			0
7	NA	2 5-10	MC	31"/60"						0
8									0	0
9										0
10							Submit to lab. See chain of custody (1) 3-5' (1225)			

LOCATION SKETCH



DENSITY: GRANULAR:		COHESIVE:		PROPORTIONS:	
0–10	Loose	0–4	Soft	0–10%	Trace
10–30	Med Dense	4–8	Med Stiff	10–20%	Little
30–50	Dense	8–15	Stiff	20–35%	Some
>50	Very Dense	15–30	Very Stiff	35–50%	And

REMARKS/WEATHER: 70°F Clear

LOG STATUS:
PRELIMINARY: [signature] FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-03
PAGE 1 OF 2

NORTH	DRILLER C.2.G	DATE START 9/16/10
EAST	RIG Geoprobe 6620 DT	DATE FINISH 9/16/10
GRD ELEV.	BITS — FLUIDS —	TOTAL DEPTH 18'
TOC ELEV.	LOGGED BY Lovendushi	WATER DEPTH ~8'

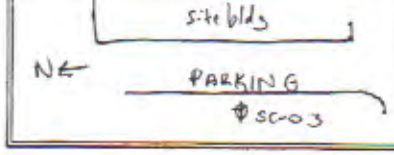
SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube MacroCore

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material Stainless Steel
Liner acetate
Other

SURFACE CONDITION: Asphalt

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
0								0		
							6" ASPHALT, some gravel, dry			0
1							36" Lt. brown, dense, Fine SAND, some silt, trace Fine gravel, dry.			
2	NA	1 0-5'	DT MC	44"/60"	NA		2" Grey rock fragments, dry.	0	0	0
3										0
4								0	0	0
										0
5							4" Grey ROCK FRAGMENTS, dry.			
6							7" Brown, dense, Fine SAND, little silt, trace Fine gravel, moist.	0	0	0
7							13" Brown med. dense, Fine SAND, little fine gravel, trace rock fragments, wet.			0
8	NA	2 5-10'	DT MC	39"/60"	NA		15" Brown, dense, Fine SAND, little fine gravel, trace rock fragments, moist.			0
9								0	0	0
										0
10										

LOCATION SKETCH



DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: Clear, 60°F

LOG STATUS:
PRELIMINARY: [signature] FINAL:

EnviroGroup Limited
Centennial, Colorado

BOREHOLE LOG

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BH NO. SC-03
PAGE 2 OF 2

NORTH	DRILLER C.2.G		DATE START 9/16/10
EAST	RIG Geoprobe 6620 DT		DATE FINISH 9/16/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 18'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH 8'

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube Macrocore

SAMPLER SPECIFICATIONS:
Length 5
O.D. 2.5"
I.D. 2"
Material St. Steel
Liner Acrylic
Other —

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: Gravel/Asphalt SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
10								0		
11							5" Grayish brown, dense, Fine SAND, trace fine gravel, trace rock fragments, moist.			0
12	NA	3 10-15'	DT MC	33"/60"	NA		28" Brown, dense, Fine (13) ~~GRAVEL~~ SAND, little rock fragments, trace fine gravel, moist.	0	0	0
13										0
14								0	0	0
15										0
16	NA	4 15-18	DT MC	9"/36"	NA		NO RECOVERY.	0	0	0
17										
18							Refusal @ 18' bgs. Bottom of boring.			
19							Overdrill w/ 4.25" HSA to set 2" SCH 40 PVC monitor well. 0.010" SCREEN (17'-7') #0 SAND (17'-5') Bentonite granules (5'-1') Finished w/ Flushmount.			
20										

LOCATION SKETCH
See pg 1.

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER
See pg 1.

LOG STATUS:
PRELIMINARY: E Sovereald FINAL

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-02
PAGE 1 OF 2

NORTH	DRILLER C.2 G	DATE START 9/15/10
EAST	RIG 6620DT	DATE FINISH 9/15/10
GRD ELEV.	BITS / FLUIDS —	TOTAL DEPTH 19.7'
TOC ELEV.	LOGGED BY Lovenduski	WATER DEPTH ~16'

SAMPLE TYPES:
CT Cuttings — WS Wash
SS Split Spoon — NX NX Core
DC Dry Core — CS Continuous Sampler
Other: Macrocore - Dual tube

SAMPLER SPECIFICATIONS:
Length 5' — Material S.S.
O.D. 2.5" — Liner Acetate
I.D. 2" — Other

SURFACE CONDITION: Asphalt

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☑ FID ☐ BG	HS	Core
10								0		
							5" Grey coarse loose GRAVEL, trace silt, dry			0
11							30" DK. olive grey dense f. to SAND, some silt, trace coarse sand, moist.			
12	NA	3 10-15	DT MC	35"/60	NA			0		0
13										0
14								0		0
15										0
16							10" Same as above, Moist			
							28" Grey loose medium SAND, little fine gravel, trace silt, wet.		0	0
17	NA	4 15-20	DT MC	38"/60"	NA					0
18									0	
19							Refusal 19.7' bgs. Auger-overdrill w/ 4.25" to set well. - Augered to 14' bgs - set well. 2" SCH 40 PVC 0.010" slot screen (14'-4') #0 Sand 14'-2' Bentonite granules 2-1' Finished as Flush mount.			0
20										

LOCATION SKETCH: See page 1

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: 70°F Sunny

LOG STATUS:
PRELIMINARY: EJ
FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-03B
PAGE 1 OF 1

NORTH	DRILLER C.2 G/ADT		DATE START 9/15/10
EAST	RIG CME-75		DATE FINISH 9/17/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 33'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH See well dev. log.

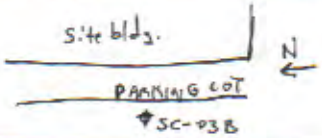
SAMPLE TYPES:
CT Cuttings
SS Split Spoon
DC Dry Core
WS Wash
NX NX Core
CS Continuous Sampler
Other:

SAMPLER SPECIFICATIONS:
Length —
O.D. —
I.D. —
Material —
Liner —
Other —

SURFACE CONDITION: GRAVEL

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID☒ FID☐ BG	HS	Core
0							NO SAMPLES COLLECTED. SEE LOG FOR WELL SC-03 for OVERBURDEN GEOLOGY	0		
1							· Drilled through overburden w/ 6.25" HSA. Encountered bedrock surface at 20' bgs. Used augers as temporary casing and drilled rock socket 2 feet into bedrock w/ 5 7/8" roller bit. Rock socket T.D. = 22'. Grouted in place 4" steel casing (threaded + coupled) to 22' bgs. Removed augers			
2										
3										
4										
5										
6							9/17/10 Drilled open hole interval (22-33') using 3 7/8" wash rotary. Flushed. Completed borehole with clean water.			
7							Well specs:			
8							4" steel casing 0-22' grouted (bedrock @ 20')			
9							3 7/8" Open hole (22-33' bgs).			
10										

LOCATION SKETCH



DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: Sunny mid 50's.

LOG STATUS:
PRELIMINARY: [signature]
FINAL

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-04
PAGE 1 OF 2

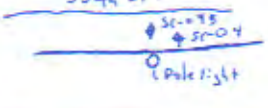
NORTH	DRILLER C.2.G		DATE START 9/15/10
EAST	RIG Geoprobe 6620 DT		DATE FINISH 9/15/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 15'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH 8'

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube MacroCore

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material S. Steel
Liner Acetate
Other

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: Asphalt. SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
0								0		
							2" Gry loose GRAVEL			
1							19" Brown loose, medium SAND, trace Coarse gravel, trace silt, dry.			
2									0	0
	NA	1 0-5	MC	40"/60"	NA		19" Lt. brown soft to mod stiff SILT, trace sand, and gravel, moist.			0
3									0	
4										0
5										0
							59" Lt. brown dense, medium SAND, some silt, trace fine gravel, moist to wet.			
6									0	0
7	NA	2 5-10	DT MC	59"/60"	NA					0
8										
									0	0
9										
10										0

LOCATION SKETCH



DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: Clear, mid 60s F

LOG STATUS:
PRELIMINARY: E. Lovenduski FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic

PROJECT LOCATION Highland, NY

PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-04

NORTH	DRILLER C.2G		DATE START 9/15/10
EAST	RIG Geoprobe 6620DT		DATE FINISH 9/15/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 15'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH 8'

SAMPLE TYPES:
CT Cuttings
SS Split Spoon
DC Dry Core
Other: Dual Tube Macro Core
WS Wash
NX NX Core
CS Continuous Sampler

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material S.S.
Liner Acetate
Other

SURFACE CONDITION: Asphalt

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID BG	HS	Core
10								0		
							29" SAME AS ABOVE, Moist to wet.			0
11							12" Dk. gray very dense SILT AND GRAVEL, wet.		0	0
12	NA	3 10-15	MC	41/60	NA					
13									0	0
14										0
15							Refusal @ 15'. Last Foot of 10-15' was very difficult to get through. Attempted 15-20, refusal @ 15'. Bottom of boring.			0
16							Over drill w/ 4.25" HSA.			
17							Set 2" Sch 40 well @ 15'. 10' screen. #1 sand from 15-3'. Bentonite to grade.			
18							Flushmount cover.			
19							(6-8') sent to lab for TCL VOC TCL SVOC, TAL Metals Time 0850			
20										

LOCATION SKETCH: Sufs

DENSITY: GRANULAR:		COHESIVE:		PROPORTIONS:	
0-10	Loose	0-4	Soft	0-10%	Trace
10-30	Med Dense	4-8	Med Stiff	10-20%	Little
30-50	Dense	8-15	Stiff	20-35%	Some
>50	Very Dense	15-30	Very Stiff	35-50%	And

REMARKS/WEATHER: Sups!

LOG STATUS:
PRELIMINARY: [signature]
FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-04B
PAGE 1 OF 1

NORTH	DRILLER C.2 G/AIST		DATE START 9/14/10
EAST	RIG CME 75		DATE FINISH 9/17/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 30'
TOC ELEV.	LOGGED BY Loverdusk;		WATER DEPTH See well dev. log.

SAMPLE TYPES:
CT Cuttings
SS Split Spoon
DC Dry Core
WS Wash
NX NX Core
CS Continuous Sampler
Other: —

SAMPLER SPECIFICATIONS:
Length —
O.D. —
I.D. —
Material —
Liner —
Other —

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

SURFACE CONDITION: GRAVEL

SOIL/ROCK DESCRIPTION

SOIL VAPOR PID ☒ FID ☐

BG	HS	Core
0		

NO SAMPLES COLLECTED. SEE LOG FOR WELL SC-04 FOR OVERBURDEN GEOLOGY.

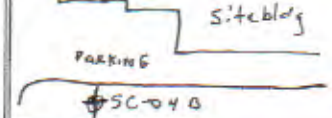
- Drilled through overburden with 6.25" HSA. Encountered bedrock surface @ 16' bgs. Used augers as temporary casing and drilled rock socket to 18.7' bgs. w/ 5 7/8 roller bit (Fluid). Grouted in place 4" steel casing (threaded and coupled) to 18.7' bgs. Removed augers.

9/17/10 Drill open hole interval (18.7'-30') using 3 7/8" wash rotary. Flushed with clean water.

Well specs:
4" Steel casing 0-18.7' grouted in place. Bedrock 16'.
3 7/8" open hole (18.7'-30')

ESoverdusk

LOCATION SKETCH



DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: ptly sunny mid 50's

LOG STATUS:
PRELIMINARY: Signed - FINAL: _____

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-05
PAGE 1 OF 1

NORTH	DRILLER C2G	DATE START 9/14/10
EAST	RIG Geoprobe 6620 DT	DATE FINISH 9/14/10
GRD ELEV.	BITS — FLUIDS —	TOTAL DEPTH 13'
TOC ELEV.	LOGGED BY Lovenduski	WATER DEPTH ~7'

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube MacroCore

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5" dt
I.D. 2"
Material SS
Liner Acetate
Other

SURFACE CONDITION: Grass

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID☒ FID☐ BG	HS	Core
0								0		
1							10" Brown loose md. SAND, trace roots and fine gravel, dry.		0	0
2	NA	1 0-5'	MC	38"/60"	NA		21" Lt. grayish brown medium dense fine SAND, some silt, trace gravel, dry to moist.			0
3							7" Lt. grayish brown medium stiff SILT, some fine sand, trace clay and fine gravel, moist.			0
4									0	0
5										0
6							51" Lt. grayish brown dense fine SAND, little coarse sand, trace silt, moist.			0
7	NA	2 5-10'	MC	54/60	NA		3" Dk. bluish gray very dense SILT and SAND, trace fine gravel (TILL) moist.		0	0
8										0
9									0	0
10							6" Grey rock, rock fragments			0
11	NA	3 10-10.7'	MC	6"/9"	NA					

Unable to auger past 9' bgs.
Install 1" PVC well to 9' bgs.
Screen 13-8', riser to grade.
#1 Sand 13-5' chips 5-0'

LOCATION SKETCH

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: Clear, sunny 70's.

LOG STATUS:
PRELIMINARY: SJ
FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-06
PAGE 1 OF 2

NORTH	DRILLER C.2.G		DATE START 9/16/10
EAST	RIG Geoprobe 6620DT		DATE FINISH 9/16/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 19.5'
TOC ELEV.	LOGGED BY Lovendusk;		WATER DEPTH 8

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube Macrocore

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material S.S.
Liner Acetate
Other —

SURFACE CONDITION: Gravel

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
0								0		
							3" Dk. brown loose med SAND, some roots, dry.			0
1									0	
							9" Brown loose-med dense medium SAND, trace coarse gravel, dry.			0
2	NA	1/0-5	DT MC	12"/60"	NA					0
3										0
4									0	
										0
5										
							24" Olive gray/brown med dense fine SAND, little silt, trace roots and fine gravel, moist	0		0
6										
				32"/60"						0
7			DT MC		NA		8" Brown loose fine SAND, trace fine gravel, moist-wet.			0
8	NA	2/5-10								
							Submitted soil sample 5-7' bgs VOC/SVOC/Metals/Pesticides +DUP (pesticides)	0		0
9										
										0
10										

LOCATION SKETCH
SC-06
• SC-06B

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER
clear 45°F

LOG STATUS:
PRELIMINARY: E Lovendusk FINAL:

EnviroGroup Limited
Centennial, Colorado

0815 3-7

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-06
PAGE 2 OF 2

NORTH	DRILLER C2G	DATE START 9/16/10
EAST	RIG Geoprobe 6620DT	DATE FINISH 9/16/10
GRD ELEV.	BITS — FLUIDS —	TOTAL DEPTH 19.5
TOC ELEV.	LOGGED BY Lovenduski	WATER DEPTH ~~18~~ 18'

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: DUAL TUBE MACROCORE

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material St. Steel
Liner ~~Acetate~~ Nylon
Other —

SURFACE CONDITION: GRAVEL

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ PID ☐ BG	HS	Core
10										
11							24" Lt. grey med dense medium SAND, little coarse gravel, trace silt, dry-moist.	0	0	0
12	NA	3 10 15	DT MC	52"/60"	NA		28" Grey dense, Fine SAND, little gravel and silt, moist.			0
13										0
14								0	0	0
15										
16							21" SAME AS ABOVE, wet @ 18' bgs. Refusal @ 19.5' bgs. Bottom of boring.			0
17	NA	4 15 20	DT MC	21"/54"	NA		OVERDRILL w/ 4.25" HSA to set 2" SCH 40 PVC Monitoring well.	0	0	0
18							Set well @ 14' bgs.			
19							0.010" slot screen (14-4') #0 sand (14-2') Bentonite granules (2-1') Flush mount Road box.			
20										

LOCATION SKETCH: see pgl.

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: see pgl

LOG STATUS:
PRELIMINARY: ESmale. FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-06B
PAGE 1 OF 1

NORTH	DRILLER C.2 G/ADT		DATE START 09/13/10
EAST	RIG CME 75		DATE FINISH 09/16/10
GRD ELEV.	BITS	FLUIDS	TOTAL DEPTH 34'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH See well dev. log

SAMPLE TYPES:
CT Cuttings
SS Split Spoon
DC Dry Core
WS Wash
NX NX Core
CS Continuous Sampler
Other:

SAMPLER SPECIFICATIONS:
Length NA
O.D. NA
I.D. NA
Material NA
Liner NA
Other —

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: GRASS SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
0							No samples collected. See log for borehole SC-06 for overburden geology.	0		
1							• Drilled through overburden with 6.25" HSA. Encountered bedrock surface at 22' bgs. Used augers as temp casing and drilled 2 feet into bedrock w/ 5 7/8" wash rotary bit (24'). Grouted in place 4" steel casing (threaded + coupled) to 24' bgs. Removed augers. (9/14/10)			
2										
3										
4										
5							9/16/10 - Drill open hole interval (24-34') bgs using 3 7/8" wash rotary. -Flushed w/ clean water.			
6										
7							WELL SPECS:			
8							4" steel casing 0-24' grouted in. (bedrock @ 22' bgs)			
9							3 7/8" open hole (24-34' bgs).			
10										

LOCATION SKETCH

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: ptly cloudy, high 60s.

LOG STATUS:
PRELIMINARY:
FINAL:

EnviroGroup Limited
Centennial, Colorado

BOREHOLE LOG

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BH NO. SC-07
PAGE 1 OF 3

NORTH	DRILLER C.2G	DATE START 9/13/10
EAST	RIG GEOPROBE 6620DT	DATE FINISH 9/13/10
GRD ELEV.	BITS / FLUIDS	TOTAL DEPTH 25.4'
TOC ELEV.	LOGGED BY Lovenduski	WATER DEPTH 4.5'

SAMPLE TYPES:
CT Cuttings
SS Split Spoon
DC Dry Core
WS Wash
NX NX Core
CS Continuous Sampler
Other: Dual Tube Macro Core

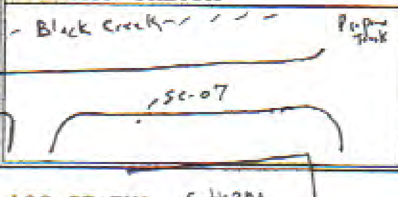
SAMPLER SPECIFICATIONS:
Length ~~4'~~ 5'
O.D. 2.5"
I.D. 2"

Material SS-Macrocore
Liner ACETATE
Other

SURFACE CONDITION: GRAVEL

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID BG	HS	Core
0								0		
1							23" Brown-dk brown, SAND AND GRAVEL, some silt, dry, dense		.	0
2	NA	1 0-5'	MC	27"/60	NA		4" Olive brown-grayish brown coarse SAND, some silt, moist-wet		0	0
3										0
4							* 2-4' for VOCs/SVOCs/Metals/Pesticides (1300)		0	0
5 (water ▽ 4.5)										0
6							8" Olive grey med stiff SILT, some fine sand, trace fine gravel, wet.		0	0
7	NA	2 5-10	MC	29/60	NA		12" Bluish grey, fine SAND, dense, little silt, trace fine gravel, wet.			0
8							11" Greyish brown dense, fine SAND, trace fine rounded gravel and silt, wet.		0	0
9										0
10										0

LOCATION SKETCH



DENSITY: GRANULAR:		COHESIVE:		PROPORTIONS:	
0-10	Loose	0-4	Soft	0-10%	Trace
10-30	Med Dense	4-8	Med Stiff	10-20%	Little
30-50	Dense	8-15	Stiff	20-35%	Some
>50	Very Dense	15-30	Very Stiff	35-50%	And

REMARKS/WEATHER: Clear/ptly cloudy, low 70s

LOG STATUS: Sudhone
PRELIMINARY: [signature]
FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-07
PAGE 2 OF 3

NORTH	DRILLER C.2.G		DATE START 9/13/10
EAST	RIG Geoprobe 6620 DT		DATE FINISH 9/13/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 25.4
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH 15'

SAMPLE TYPES:
CT Cuttings WS Wash
SS Split Spoon NX NX Core
DC Dry Core CS Continuous Sampler
Other: Dual Tube Macro Core

SAMPLER SPECIFICATIONS:
Length 5'
O.D. 2.5"
I.D. 2"
Material St. Steel
Liner Acetate
Other

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: Gravel / SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
10								0		
11							15" Dk. grey, loose coarse SAND, some fine sand, trace fine angular gravel, wet.			0
12							13" Grey med stiff SILT, trace clay and fine gravel, wet.		0	0
13	NA	3 10-15	MC	28"/60"	NA					0
14									0	0
15										0
16							36" Grey ~~Soft~~ med stiff SILT, trace fine sand and fine gravel, wet.		0	0
17	NA	4 15-20	MC	34/60	NA					0
18										0
19									0	0
20										0

LOCATION SKETCH: Seep 1.

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: See pg 1.

LOG STATUS:
PRELIMINARY: CLovenduski FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-07
PAGE 3 OF 8

NORTH	DRILLER C.2.G		DATE START 9/13/10
EAST	RIG Geoprobe 6620DT		DATE FINISH 9/13/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 25.4'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH ~5'

SAMPLE TYPES:
CT Cuttings, SS Split Spoon, DC Dry Core, Other: Dual Tube MacroCore, WS Wash, NX NX Core, CS Continuous Sampler

SAMPLER SPECIFICATIONS:
Length 5, O.D. 2.5", I.D. 2", Material S.S., Liner Acetate, Other

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SURFACE CONDITION: Gravel / SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
20								0		
							8" Grey soft SILT, trace clay, trace fine grain, wet.			0
21									0	
							32" Grey-dk. grey med dense med SAND, little silt, trace shale fragments and silt, wet			0
22		5/20-25	MC	40"/60"	NA					
23									0	0
24										0
25							5" SAME AS ABOVE			0
							Refusal @ 25.4' bgs, top of bedrock.			
6							Set 2 Drilled borehole w/ 4.25" Hollow stem Augers to 15'. Set 2" Sch 40 well at 15' bgs.			
7							Screen (14-4')			
8							Sand (14-2')			
							Bentonite (2-0')			
9							0.010" slot.			
10										

LOCATION SKETCH: See pg 1

DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: See pg 1.

LOG STATUS:
PRELIMINARY: E Lovenduski FINAL:

EnviroGroup Limited
Centennial, Colorado

CLIENT Panasonic
PROJECT LOCATION Highland, NY
PROJECT NO. PL-0637

BOREHOLE LOG

BH NO. SC-07B
PAGE 1 OF 1

NORTH	DRILLER C.2 G/ADT		DATE START 9/15/10
EAST	RIG CME 75		DATE FINISH 9/17/10
GRD ELEV.	BITS —	FLUIDS —	TOTAL DEPTH 37'
TOC ELEV.	LOGGED BY Lovenduski		WATER DEPTH See well dev. log

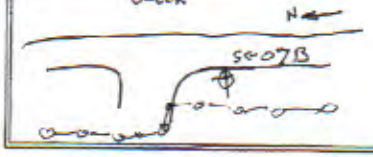
SAMPLE TYPES:
CT Cuttings
SS Split Spoon
DC Dry Core
WS Wash
NX NX Core
CS Continuous Sampler
Other:

SAMPLER SPECIFICATIONS:
Length /
O.D. /
I.D. /
Material /
Liner /
Other /

SURFACE CONDITION: GRAVEL

DEPTH (FT.)	BIT CASING	SAMP NO.	SAMP TYPE	RECOV. FT/FT	BLOWS per 6"	SYM	SOIL/ROCK DESCRIPTION	SOIL VAPOR PID ☒ FID ☐ BG	HS	Core
0							NO SAMPLES COLLECTED. SEE LOG FOR BOREHOLE SC-07 FOR OVERBURDEN GEOLOGY	0		
1							• Drilled through overburden w/ 6.25" HSAs. Encountered bedrock surface at 24.5' bgs. Used augers as a temporary casing and drilled 2 feet into bedrock w 5 7/8" roller bit (fluid). Rock socket open to 26.5'. Grouted in place 4" steel casing (threaded and coupled) to 26.5'. Removed augers (9/15/10)			
2										
3										
4										
5										
6							9/17/10 Drill open hole interval (26.5-37') using 3 7/8" wash rotary. Flushed completed borehole w/ clean water.			
7							WELL SPECS:			
8							4" steel casing 0-26.5' grouted in (bedrock ~24.5')			
9							3 7/8" open hole (26.5-37')			
10										

LOCATION SKETCH



DENSITY:

GRANULAR:		COHESIVE:	
0-10	Loose	0-4	Soft
10-30	Med Dense	4-8	Med Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff

PROPORTIONS:

0-10%	Trace
10-20%	Little
20-35%	Some
35-50%	And

REMARKS/WEATHER: ptly cloudy Mid 50s

LOG STATUS:
PRELIMINARY:
FINAL:

EnviroGroup Limited
Centennial, Colorado

Appendix D

Well Development Field Sheets

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-01

WELL DEPTH = 15.26 FEET soft bottom

WET-CASING VOLUME = 1.7 GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = Top of casing

15.26
-4.49
10.77
x .163
1.7 gal
x 5
8.8 gal

PROJECT NAME: Panasonic - Highland

PROJECT NUMBER: PL-0637

LOCATION: Highland, NY

PERSONNEL: M. Stiles/Eric Lovenduski

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/29/10	1518	4.49	PVC surge	3:24	Bailer	3:33	1539	3 gal	cloudy grey	no odor / no sheen
9/29/10	1539	—	PVC surge	5:00	Bailer	1548	1557	4 gal	cloudy, grey	no odor / no sheen
9/29/10	16:04	—	PVC surge	6:00	Bailer	16:04	16:09	12 gallons	cloudy grey	no odor / no sheen

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-02

13.59
4.96
8.63
x.163
1.4

WELL DEPTH = 13.59 FEET

WET-CASING VOLUME = 1.4 GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = T.O.C.

x5
7.03 gallons

PROJECT NAME: Panasonic - Highland, NY

PROJECT NUMBER: PL0637

LOCATION: Highland, NY

PERSONNEL: E. Lovenduski / M. Stiles

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/23/10	14:23	4.96	PVC Surge Block	5 min	Bailer	1430	1442	6 gal	cloudy, brown	no odor or sheen
9/23/10	14:29	—	"	5 min	Bailer	1449	1510	11 gal	sl. cloudy brown	no odor, or sheen

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: (15) SC-03

WELL DEPTH = ~~34.49~~ (mg) FEET

WET-CASING VOLUME = 1.25 x 5 = 6.2 GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = T.O.C.

~~gage~~ 16.59
- 8.95
7.64
x .163
1.25
x 5
6.2 gallons

PROJECT NAME: Panasonic-Highland

PROJECT NUMBER: PL-0637

LOCATION: Highland, NY

PERSONNEL: Elovendyk/M. Stiles

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/22/10	13:28	8.95	PVC Surge Block	13:35	Bailer	13:47	13:55	6 gallons	sl. cloudy	
9/23/10	—	—	PVC Surge Block	~~13~~ 14:01	Bailer	14:03	14:13	~~4 gallons~~ 6 gallons	slightly cloudy	no odor no sheen.

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-03B

$4^2 \times .0408 = .653$

32.43
- 7.29
25.14
x .653
16.42
16x5 = 80gal

WELL DEPTH = 32.43 FEET

WET-CASING VOLUME = 16x5 = 80 GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = T.O.C.

PROJECT NAME: Panasonic - Highland

PROJECT NUMBER: PL0637

LOCATION: Highland, NY

PERSONNEL: E Lovenduski / MattStiles

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/23/10 ~~1345~~	1325	7.29	—	—	whale pump	13:20	1340	16gal	clear	no odor or sheen.
— making water very slowly. will return later to pump more.										
9/23/10	1650	31.55	—	—	—	—	—	—	—	slowly recharging well.

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-04

WELL DEPTH = 14.09 FEET Hard bottom

WET-CASING VOLUME = 3.50 GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = T.O.C.

14.09
9.79
4.3
x .163
0.7009 gal
x 5
3.50 gal

$2^2 \times .0408$
.163

PROJECT NAME: Panasonic, Highland

PROJECT NUMBER: ~~HL-0691~~ PL0637

LOCATION: Highland NY

PERSONNEL: Eric Lovendusk.
Matt Stiles

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/23/10	1051	9.79	PVC surge block	5 min	Bailer (2")	11:13	1120	2.0	Cloudy brown	no odor, sheen
9/23/10	—	—	PVC Surge Block	5 min	Bailer	1126	1128	3.8	Cloudy brown	no odor, sheen

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

$d^2 \times .0408 = gal/Ft$

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-04B

WELL DEPTH = 29.45 FEET

WET-CASING VOLUME = 13 x 5 = 65 GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = T.O.C.

29.45'
9.69
14.76'
x .653
13 gal = 1 wetted casing volume
x 5
65 gal = 5 wetted casing volumes

$4^2 \times .0408$
.653

PROJECT NAME: Panasonic

PROJECT NUMBER: PL0637

LOCATION: Highland, NY

PERSONNEL: E. Lovenduski
M. Stiles

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/23/10	1037	9.69'	—	—	Whale Pump	1040	1150	~70 gal	clear	No odor, sheen ~1 gpm / 9.89' Final

Notes:
[1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-06

13.65

WELL DEPTH = 16.25 FEET

7.87 x 5 = 9.3 gallons

WET-CASING VOLUME = ~~.467~~ (1.87) GALLONS ~~x 5 = 2.34 gallons~~

REFERENCE POINT FOR DEPTH MEASUREMENTS = T.O.C.

PROJECT NAME: Panasonic -

PROJECT NUMBER: PL0637

LOCATION: Highland, NY

PERSONNEL: E. Lovenduski / ~~M. Stoltz~~ (B)

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/22/10	809	4.79	Surge block	5:00	Bailer	08:15	08:17	4.5 gal	cloudy gray	no odor/no sheen
9/22/10	0820	—	Surge block	5:00	Bailer	0827	0830	4.8 gal	sl. cloudy gray	no odor/no sheen
								9.3 total		

Notes: [1] Bailers, submersible pumps, etc.

[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-05

WELL DEPTH = 12.13 FEET

WET-CASING VOLUME = .419 x 5 = 2.1 gal GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = TOC

0.0408 Gal/ft

12.13
- 1.85
10.28
x .0408
.419
x5
2.1 gallons

PROJECT NAME: Panasonic

PROJECT NUMBER: PL0637

LOCATION: Highland, NY

PERSONNEL: ~~PLS~~ E. Lovendusk: / M. Stiles

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/29/10	11:14	1.85	PVC surge block	11:16 3 mins	Bailer	11:19	11:23	1 gallon	sl. cloudy brown	no odor, no sheen
9/29/10	"	—	PVC Surge Block	11:23 3 mins	Bailer	11:27	11:39	1 gallons	sl. cloudy brown	no odor, no sheen
9/29/10	—	—	PVC surge block	11:40	Bailer	11:51	11:58	0.1 gallons = 2.1 gal total		

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

Total depth → 12.13 ft

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-06B

WELL DEPTH = 34.49 FEET

WET-CASING VOLUME = 19.24 GALLONS x 3 = 96.22 gallons

REFERENCE POINT FOR DEPTH MEASUREMENTS = ~~T.O.C.~~ T.O.C.

PROJECT NAME: Panasonic

PROJECT NUMBER: PL0637

LOCATION: Highland, NY

PERSONNEL: E Lovendvski

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
05/22/18	0835	5.02	—	—	WhalePump	0837	0910	~45	~~Cloud~~ clear	no odor / no sheen
9/22/18	0910	8.25	—	—	WhalePump	0910	0945	~105	clear	no odor / no sheen

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-07

WELL DEPTH = 11.88 FEET 11.88' - 5 ft bottom

WET-CASING VOLUME = ~~0.39~~ 1.42 x 5 = 7.1 ~~1.77 gallons~~ (5) GALLONS

REFERENCE POINT FOR DEPTH MEASUREMENTS = T.O.C.

PROJECT NAME: Panasonic

PROJECT NUMBER: PL0637

LOCATION: Highland, NJ

PERSONNEL: E. Lovenduski

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/27/10	1140	3.19	Surge block	5:00	Bailer	1147	1152	4 gal	cloudy grey	no odor, no sheen
9/28/10	1155	—	surge block	5:00	Bailer	1158	1205	3.7 gal	cloudy grey	no odor, no sheen
								7.7 gal total		

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

EnviroGroup Limited

WELL DEVELOPMENT RECORD

WELL: SC-07B

36.40
DTWC 2.26
34.14' wetted casing
X 0.653 gal/ft

WELL DEPTH = 36.40 FEET

WET-CASING VOLUME = 22.3 GALLONS X 5 = 111.5 gallons

REFERENCE POINT FOR DEPTH MEASUREMENTS = Top of casing

PROJECT NAME: Panasonic - Highland

PROJECT NUMBER: PL-0637

LOCATION: Highland, NY

PERSONNEL: E. Lovendrski

INITIAL WATER LEVEL			SURGING		PURGING					
DATE	TIME	DEPTH	METHOD[1]	SURGE TIME	METHOD[1]	START TIME	END TIME	TOTAL VOLUME REMOVED	FINAL APPEARANCE[2]	COMMENTS (Odor, Sheen, etc.)
9/21/10	1140	2.26	—	—	Whale Pump	1145	1211	30gal	sl. cloudy brown	no odor / sheen
9/21/10	1215	—	—	—	Whale Pump	1215	1240	60gal	Sl. cloudy brown	no odor, no sheen
9/22/10	1348	3.57	—	—	Whale Pump	1348	1430	90gal	clear	no odor/sheen

Notes: [1] Bailers, submersible pumps, etc.
[2] Turbidity estimate (slight, moderate or high) and Color

Appendix E

Investigation Derived Waste Manifests

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone: 845 255 4900

4. Waste Tracking Number: N1957

5. Generator's Name and Mailing Address: Prism Solar c/o Panasonic, 180 South St, Highland NY

Generator's Site Address (if different than mailing address): Same

Generator's Phone:

6. Transporter 1 Company Name: C2G Environmental Consultants — U.S. EPA ID Number: NYR000141720

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Paradise, Quimby St, Ossining — U.S. EPA ID Number: NY0000041830

Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
GENERATOR	1. Purged Water, Non DOT, Non Regulated Liquid, No Placards Required	1	TT	837	gal
	2.				
	3.				
	4.				

13. Special Handling Instructions and Additional Information

Vac out of drums

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: PROZ BAN / As Agent — Signature: [signature] — Month 12 Day 8 Year 10

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Addeo — Signature: Michael Addeo — Month 12 Day 9 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MARTIN — Signature: [signature] — Month 12 Day 09 Year 10

169-BLS-C 5 11979 (Rev. 9/09) DESIGNATED FACILITY TO GENERATOR

SOIL TRACKING FORM

Deep Green of New York, Inc.

TRACKING FORM NO. (GIVEN BY DEEP GREEN)

DATE OF SHIPMENT	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO.	FACILITY NO.	JOB NO.	LOAD NO.
12/9/10	C2G		B06	9075	

GENERATOR NAME AND BILLING ADDRESS
PRISM SOLAR TECHNOLOGIES
180 SOUTH STREET
HIGHLAND, N.Y. 12528

GENERATOR PHONE NO.
GENERATOR CONTACT
GENERATOR FAX NO.
CUSTOMER ACCT. NO. WITH DEEP GREEN

CONSULTANT NAME AND BILLING ADDRESS
NOT APPLICABLE

CONSULTANT PHONE NO.
CONSULTANT CONTACT
CONSULTANT FAX NO.
CUSTOMER ACCT. NO. WITH DEEP GREEN

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS
NOT APPLICABLE

SITE PHONE NO.
SITE CONTACT
SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS
DEEP GREEN OF NEW YORK, INC.
1106 RIVER ROAD
NEW WINDSOR, N.Y. 12553

FACILITY PHONE NO. 845-562-8778
PART 360 PERMIT NO. 3-3348-00150-00001-0
FACILITY CONTACT
FACILITY FAX NO. 845-562-9566

TRANSPORTER NAME AND ADDRESS
C2G ENVIRONMENTAL
4 LUMEN LANE
HIGHLAND, N.Y. 12528
PERMIT # 3A-830

TRANSPORTER PHONE NO.
TRANSPORTER PART 364 PERMIT NO.
TRANSPORTER CONTACT
TRANSPORTER DOT NO.
TRANSPORTER FAX NO.
CUSTOMER ACCT. NO. WITH DEEP GREEN

MATERIAL TESTING
(CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED)
- ☑ TOTAL PETROLEUM HYDROCARBONS
- ☑ BENZENE (TOTAL)
- ☐ BENZENE (TCLP)
- ☑ LEAD (TOTAL)
- ☐ LEAD (TCLP)
- ☐ BENZENE/TOLUENE/ETHYL BENZENE/XYLENE
- ☐ METHYL T-BUTYL ETHER (MTBE)
- ☑ HALOGENATED VOLATILE ORGANICS
- ☑ HEAVY METALS (TOTAL)
- ☐ HEAVY METALS (TCLP)
- ☐ OTHER *(PLEASE LIST)*:

DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)
PCS	28.05	19.63	842

GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION: I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS _____ (TITLE) OF _____ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME ☐ GENERATOR ☐ CONSULTANT	SIGNATURE	MONTH	DATE	YEAR

TRANSPORTER'S CERTIFICATION: I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
Garrett Lutti		12	9	10

TRANSPORTER DISCREPANCY BOX *(ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)*

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
Dan Wine		12	9	10

PROCESSING FACILITY DISCREPANCY BOX *(ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)*

INSTRUCTIONS
1. **GENERATOR** COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
2. **TRANSPORTER** COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
3. **PROCESSING FACILITY** COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

TRANSPORTER COPY

1106 RIVER ROAD
NEW WINDSOR, N.Y. 12553
(P) 845-562-8778
(F) 845-562-9566

WEIGHT TICKET

JOB # 9075

	TONS	POUNDS
TIME IN / DATE GROSS WEIGHT	28.05	3:30 PM 12 09 10 56100 lb
TIME OUT / DATE TARE WEIGHT	19.63	3:41 PM 12 09 10 39260 lb
NET WEIGHT	8.42	16,840

SIGNATURE

SOIL TRACKING FORM

Deep Green of New York, Inc.

TRACKING FORM NO. (GIVEN BY DEEP GREEN)

DATE OF SHIPMENT	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO.	FACILITY NO.	JOB NO.	LOAD NO.
12/9/10	C2G	98720JZ	B06	9075	

GENERATOR NAME AND BILLING ADDRESS
PRISM SOLAR TECHNOLOGIES
180 SOUTH STREET
HIGHLAND, N.Y. 12528

GENERATOR PHONE NO.

GENERATOR CONTACT

GENERATOR FAX NO. | CUSTOMER ACCT. NO. WITH DEEP GREEN

CONSULTANT NAME AND BILLING ADDRESS
NOT APPLICABLE

CONSULTANT PHONE NO.

CONSULTANT CONTACT

CONSULTANT FAX NO. | CUSTOMER ACCT. NO. WITH DEEP GREEN

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS
NOT APPLICABLE

SITE PHONE NO.

SITE CONTACT

SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS
DEEP GREEN OF NEW YORK, INC.
1106 RIVER ROAD
NEW WINDSOR, N.Y. 12553

FACILITY PHONE NO. 845-562-8775 | PART 360 PERMIT NO. 3-3348-00150-00001-0

FACILITY CONTACT [illegible]

FACILITY FAX NO. 845-562-9566

TRANSPORTER NAME AND ADDRESS
C2G ENVIRONMENTAL
4 LUMEN LANE
HIGHLAND, N.Y. 12528
PERMIT # 3A-830

TRANSPORTER PHONE NO. 845 255 4800 | TRANSPORTER PART 364 PERMIT NO. 3A830

TRANSPORTER CONTACT | TRANSPORTER DOT NO. 1535740 NY

TRANSPORTER FAX NO. 845-255 4809 PCS | CUSTOMER ACCT. NO. WITH DEEP GREEN

MATERIAL TESTING
(CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED)

- ☒ TOTAL PETROLEUM HYDROCARBONS
- ☒ BENZENE (TOTAL) ☐ BENZENE (TCLP)
- ☒ LEAD (TOTAL) ☐ LEAD (TCLP)
- ☐ BENZENE/TOLUENE/ETHYL BENZENE/XYLENE
- ☐ METHYL T-BUTYL ETHER (MTBE)
- ☒ HALOGENATED VOLATILE ORGANICS
- ☒ HEAVY METALS (TOTAL) ☐ HEAVY METALS (TCLP)
- ☐ OTHER *(PLEASE LIST):*

DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION: I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS _____ (TITLE) OF _____ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
☐ GENERATOR ☒ CONSULTANT Charles Panchaud	AS AGENT FOR	12	9	10

TRANSPORTER'S CERTIFICATION: I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
Garrett Lahlli		12	9	10

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PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR

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3. **PROCESSING FACILITY** COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

DEEP GREEN FACILITY COPY #1

Appendix F

Laboratory Analytical Data

Appendix G

Data Validation

Data Validation Status Report

Validated by: M Intasi *Date:* 11/11/10
Approved by: _____ *Date:* _____
Entered by: N/A *Date:* _____
Proofed by: N/A *Date:* _____

Project Name/ No: Panasonic PL-0637
Task Manager: E. Lovenduski
Data Package #: ~~RAW~~ SW/SED-01
Name of Laboratory: TestAmerica
Laboratory Job #'s: RTI 1569

The following are included in this package: (check if applicable)

N/A Split Sample(s) Report :
Name of Laboratory: _____
Laboratory Job #: _____
✓ QAP form
✓ COC
N/A Field Forms
✓ Field Notes
N/A Preliminary Analytical Results
✓ Final Analytical Report

List of Samples included in Group

SAMPLES - SW	FIELD QA/QC SAMPLES	
SW-04	SW-02 DUP	
SW-03	SED-02 DUP	
SW-02		
SW-01	TRIPBLANK 09/22/10	
SAMPLES - SED	FB 09/22/10	
SED-04		
SED-03		
SED-02		
SED-01		

Data Validation Documentation

Project Name Panasonic / Site Characterization Validator M. Ultasi

Project No. PL-0637 Project/Task Mgr E. Lewandowski

Task Name (Sampling) Date of Validation 11/11/10

Data Package No. SW/SED-01

Sample Custody and Handling

Total number of samples analyzed in this data package (does not include QA samples) SW-4, SED-4

Randomly select one in twenty samples.

Number of samples tracked for this data package 1-SW, 1-SED

List samples tracked SW-02, SED-01

For the selected samples:

- Were all samples received by the lab under chain of custody? ✓yes __no
- Were all sample identities maintained by the lab? (Evaluate by comparing sample IDs, and date and time of collection listed on generator's chain of custody with field water quality forms, and the lab's chain of custody and lab confirmation sheet, as applicable.) ✓yes __no
- Were field calculations (e.g., conductivities and water levels) accurate? N/A yes __no
- Were the samples collected, preserved and shipped in accordance with project specs?[1] ✓yes __no
- Were the samples analyzed within the required holding times?[1] ✓yes __no

If any problems were detected in the review of selected samples, all samples represented by the data package must be evaluated. Was it necessary to evaluate all samples? __yes ✓no

Provide any additional comments below and on attached sheets, as necessary, including any custody and handling exceptions noted in the laboratory narrative(s) and any flags placed by data validation personnel to denote problems or issues associated with sample collection, site conditions, or documentation.

---

[1] Refer to the Project Quality Assurance Specifications sheets.

Field QA Samples

Number of Trip Blanks required[1,2]: 1 (per cooler)
Number of Trip Blanks collected: 1

Were a sufficient number of Trip Blanks collected? ✓yes __no
Were contaminants detected in any Trip Blank? __yes ✓no

If contaminants[3] were reported for the Trip Blank(s), list the affected samples (i.e., those collected prior to Trip Blank) and the concentration(s) of contaminant(s) reported in both the affected samples and the Trip Blank(s) below and on additional sheets, as necessary. Also, specify any flags placed by data validation personnel to denote problems or issues associated with the Trip Blank(s).

Number of Field Blanks required[1]: 1 (per cooler)
Number of Field Blanks collected: 1

Were a sufficient number of Field Blanks collected? ✓yes __no
Were contaminants detected in any Field Blank? __yes __no

If contaminants were detected in the Field Blank(s), list the affected samples and the concentration(s) of contaminant(s) reported in both the affected samples and the field blank below and on additional sheets, as necessary. Also, specify any flags placed by data validation personnel to denote problems or issues associated with the Field Blank(s).

Barium, Iron, and Manganese were detected in the FB at 0.0016, 0.022, and 0.0017 mg/L, respectively, but were below the laboratory RL of 0.002, 0.05, and 0.003 mg/L, respectively, and are "J" flagged by the lab as required. No additional flagging for these compounds is required, no cause for concern.

Additionally, Calcium, Magnesium, Potassium & Sodium were detected above the RL in the FB. Sampler noted that spring water was used for decon & FB dilution instead of DI water (as required). No flagging is required, but the incident should be noted in the data transmittal/report.

[2] Field QA sample requirements are waived on special sampling events at the Task Manager's direction.

[3] For purposes of data validation, contaminants are defined as compounds reported above the laboratory's reporting limits.

Field QA Samples (cont.)

Number of Field Duplicates required[1]	1-GW, 1-SED
Number of Field Duplicates collected	1-GW/1-SED
Were a sufficient number of Field Duplicates collected?	✓ yes __ no
Number of Replicates (Splits) required[1]	0
Number of Replicates collected	0
Were a sufficient number of Replicates collected?	N/A __ yes __ no

Discuss Duplicate/Replicate sample results below and on attached sheets, as necessary. Specifically, include a discussion of the relative concentration relationship between the samples and their Duplicates/Replicates (i.e., the difference between the sample results and the Duplicate/Replicate results where the concentrations are less than 10 times the Reporting Limits and the calculated Relative Percent Difference where the concentrations are greater than 10 times the Reporting Limit). For Duplicate samples, also include a discussion of how the sample results and Duplicate results fall within the historic ranges for these sample locations. Finally, specify any flags placed by data validation personnel to denote problems or issues associated with the Duplicate/Replicate sample(s).

Replicate Sample requirement is waived by the task manager.

See following 3 pages for Sample/Dup comparison.

No historical Data is available for data comparison.

- All sample/sample DUP results (where the sample results are <5X R.L.) are +/- the R.L. with the exception of:

SAMPLE	ANALYTE	RESULTS	R.L.
SED-02/SED-02 DUP	Dieldrin	**11B/5.6B**	4/3.2

- RPD's for all sample/sample DUP results (where the sample results are >5X R.L.) are <20% with the exception of:

SAMPLE	ANALYTE	RESULTS	RPD	R.L.
SED-02/SED-02 DUP	Aluminum	**10900B/7420B**	38.0%	25.6/18.9
SED-02/SED-02 DUP	Arsenic	**32.4B/22.7B**	35.2%	5.1/3.8
SED-02/SED-02 DUP	Barium	**120B/88.5B**	30.2%	1.28/0.947
SED-02/SED-02 DUP	Calcium	**19200B/13700B**	33.4%	128/94.7
SED-02/SED-02 DUP	Chromium	**18.3B/13.9B**	27.3%	1.28/0.947
SED-02/SED-02 DUP	Copper	**41.8/31.1**	29.4%	2.6/1.9
SED-02/SED-02 DUP	Iron	**26900/21600**	21.9%	25.6/18.9
SED-02/SED-02 DUP	Manganese	**3400/2500**	30.5%	0.5/0.4
SED-02/SED-02 DUP	Potassium	**822/659**	22.0%	76.9/56.8
SED-02/SED-02 DUP	4,4'-DDE	**45/30**	40.0%	4/3.2

Sample/sample DUP results in bold are flagged in the data transmittal with an "&".

COMPARE SA / DUP FOR VALIDATION

Client_samp_id	Samp_date	Analyte_Name	Result (mg/L)	Qual	RL
SW-02	9/22/2010	Aluminum	0.223		0.2
SW-02 DUP	9/22/2010	Aluminum	0.286		0.2
SW-02	9/22/2010	Barium	0.0314		0.002
SW-02 DUP	9/22/2010	Barium	0.032		0.002
SW-02	9/22/2010	Calcium	110	B	0.5
SW-02 DUP	9/22/2010	Calcium	112	B	0.5
SW-02	9/22/2010	Chromium	0.0024	J	0.004
SW-02 DUP	9/22/2010	Chromium	0.0015	J	0.004
SW-02	9/22/2010	Copper	0.0041	J	0.01
SW-02 DUP	9/22/2010	Copper	0.0038	J	0.01
SW-02	9/22/2010	Iron	0.623		0.05
SW-02 DUP	9/22/2010	Iron	0.741		0.05
SW-02	9/22/2010	Magnesium	9.08		0.2
SW-02 DUP	9/22/2010	Magnesium	9.27		0.2
SW-02	9/22/2010	Manganese	0.507		0.003
SW-02 DUP	9/22/2010	Manganese	0.528		0.003
SW-02	9/22/2010	Potassium	5.04		0.5
SW-02 DUP	9/22/2010	Potassium	5.18		0.5
SW-02	9/22/2010	Sodium	71.1		1
SW-02 DUP	9/22/2010	Sodium	73		1
SW-02	9/22/2010	Vanadium	0.0013	J	0.005
SW-02 DUP	9/22/2010	Vanadium	0.0012	J	0.005
SW-02	9/22/2010	Zinc	0.0295		0.01
SW-02 DUP	9/22/2010	Zinc	0.0344		0.01

Client_samp_id	Samp_date	Analyte_Name	Result (mg/kg)	Qual	RL
SED-02	9/22/2010	Aluminum	10900	B	25.6
SED-02 DUP	9/22/2010	Aluminum	7420	B	18.9
SED-02	9/22/2010	Arsenic	32.4	B	5.1
SED-02 DUP	9/22/2010	Arsenic	22.7	B	3.8
SED-02	9/22/2010	Barium	120	B	1.28
SED-02 DUP	9/22/2010	Barium	88.5	B	0.947
SED-02	9/22/2010	Beryllium	0.464	J B	0.513
SED-02 DUP	9/22/2010	Beryllium	0.366	J B	0.379
SED-02	9/22/2010	Cadmium	1.11		0.513
SED-02 DUP	9/22/2010	Cadmium	0.864		0.379
SED-02	9/22/2010	Calcium	19200	B	128
SED-02 DUP	9/22/2010	Calcium	13700	B	94.7
SED-02	9/22/2010	Chromium	18.3	B	1.28
SED-02 DUP	9/22/2010	Chromium	13.9	B	0.947
SED-02	9/22/2010	Cobalt	11.5		1.28
SED-02 DUP	9/22/2010	Cobalt	9.68		0.947
SED-02	9/22/2010	Copper	41.8		2.6
SED-02 DUP	9/22/2010	Copper	31.1		1.9
SED-02	9/22/2010	Iron	26900		25.6
SED-02 DUP	9/22/2010	Iron	21600		18.9
SED-02	9/22/2010	Lead	46.5		2.6
SED-02 DUP	9/22/2010	Lead	40.4		1.9
SED-02	9/22/2010	Magnesium	4850		51.3
SED-02 DUP	9/22/2010	Magnesium	4480	B	37.9
SED-02	9/22/2010	Manganese	3400	B	0.5
SED-02 DUP	9/22/2010	Manganese	2500	B	0.4

COMPARE SA / DUP FOR VALIDATION

Client_samp_id	Samp_date	Analyte_Name	Result (mg/L)	Qual	RL
SED-02	9/22/2010	Mercury	0.0844		0.0439
SED-02 DUP	9/22/2010	Mercury	0.0689		0.0395
SED-02	9/22/2010	Nickel	24.7		12.8
SED-02 DUP	9/22/2010	Nickel	18.8		9.47
SED-02	9/22/2010	Potassium	822		76.9
SED-02 DUP	9/22/2010	Potassium	659		56.8
SED-02	9/22/2010	Selenium	1.9	J	10.3
SED-02 DUP	9/22/2010	Selenium	ND		7.6
SED-02	9/22/2010	Sodium	202	J B	359
SED-02 DUP	9/22/2010	Sodium	181	J B	265
SED-02	9/22/2010	Vanadium	27.5		1.28
SED-02 DUP	9/22/2010	Vanadium	22.9		0.947
SED-02	9/22/2010	Zinc	670	B	5.1
SED-02 DUP	9/22/2010	Zinc	617	B	3.8

Client_samp_id	Samp_date	Analyte_Name	Result (ug/kg)	Qual	RL
SED-02	9/22/2010	2-Butanone (MEK)	16	J	59
SED-02 DUP	9/22/2010	2-Butanone (MEK)	16	J	47
SED-02	9/22/2010	Acetone	66		59
SED-02 DUP	9/22/2010	Acetone	72		47
SED-02	9/22/2010	Methylene Chloride	6	J	12
SED-02 DUP	9/22/2010	Methylene Chloride	5.5	J	9.4
SED-02	9/22/2010	Benzo(a)anthracene	5400	J	20000
SED-02 DUP	9/22/2010	Benzo(a)anthracene	5400	J	16000
SED-02	9/22/2010	Benzo(a)pyrene	6600	J	20000
SED-02 DUP	9/22/2010	Benzo(a)pyrene	5600	J	16000
SED-02	9/22/2010	Benzo(b)fluoranthene	8600	J	20000
SED-02 DUP	9/22/2010	Benzo(b)fluoranthene	7600	J	16000
SED-02	9/22/2010	Benzo(ghi)perylene	39000		20000
SED-02 DUP	9/22/2010	Benzo(ghi)perylene	32000		16000
SED-02	9/22/2010	Benzo(k)fluoranthene	2800	J	20000
SED-02 DUP	9/22/2010	Benzo(k)fluoranthene	2500	J	16000
SED-02	9/22/2010	Carbazole	ND		20000
SED-02 DUP	9/22/2010	Carbazole	800	J	16000
SED-02	9/22/2010	Chrysene	8400	J	20000
SED-02 DUP	9/22/2010	Chrysene	6400	J	16000
SED-02	9/22/2010	Fluoranthene	14000	J	20000
SED-02 DUP	9/22/2010	Fluoranthene	12000	J	16000
SED-02	9/22/2010	Indeno(1,2,3-cd)pyrene	37000		20000
SED-02 DUP	9/22/2010	Indeno(1,2,3-cd)pyrene	30000		16000
SED-02	9/22/2010	Phenanthrene	5600	J	20000
SED-02 DUP	9/22/2010	Phenanthrene	4700	J	16000
SED-02	9/22/2010	Pyrene	12000	J	20000
SED-02 DUP	9/22/2010	Pyrene	10000	J	16000
SED-02	9/22/2010	4,4'-DDD	12	B	4
SED-02 DUP	9/22/2010	4,4'-DDD	8.2	B	3.2
SED-02	9/22/2010	4,4'-DDE	45		4
SED-02 DUP	9/22/2010	4,4'-DDE	30		3.2
SED-02	9/22/2010	4,4'-DDT	4.1	B	4
SED-02 DUP	9/22/2010	4,4'-DDT	3	J B	3.2

COMPARE SA / DUP FOR VALIDATION

Client_samp_id	Samp_date	Analyte_Name	Result (mg/L)	Qual	RL
SED-02	9/22/2010	Aldrin	ND		4
SED-02 DUP	9/22/2010	Aldrin	3.4		3.2
SED-02	9/22/2010	Dieldrin	11	B	4
SED-02 DUP	9/22/2010	Dieldrin	5.6	B	3.2
SED-02	9/22/2010	Endrin	ND		4
SED-02 DUP	9/22/2010	Endrin	3.1	J	3.2
SED-02	9/22/2010	Endosulfan II	2	J	4
SED-02 DUP	9/22/2010	Endosulfan II	ND		3.2
SED-02	9/22/2010	gamma-Chlordane	3	J	4
SED-02 DUP	9/22/2010	gamma-Chlordane	1.9	J	3.2

Chemical Laboratory QA Verification

Laboratory Name: Test America Laboratory Job No. RTI1569

List analytical methods included in report.
8260B (VOC), 6010B (metals), 8270C (SVOC), 8081A (pest.), 7470A (Mercury), 8082 (PCB), %solids

Verify that the lab QC tests met applicable specifications for the analytes of concern[4].

Did the lab properly flag results not meeting the Acceptance Criteria? ✓yes ___no

If not, identify the additional flagging requirements below, contact the lab to discuss the situation, and request appropriate replacement pages. Document telephone conversations with the lab and attach copies of correspondence (i.e., e-mails, replacement pages).

Discuss or document any other quality assurance issues not previously addressed, if any.

VOCs, 8260B

MS/MSD for Batch 10I2035 (associated samples: SED-01 through SED-04) had 10 compounds (1,1-DCA; 1,2-DCB; 1,2-DCB; Benzene; cis-1,2-DCE; Ethylbenzene; PCE; trans-1,2-DCE; TCE & Xylenes) below the acceptance limits. Results in all associated samples for these compounds were non-detect at the RL. This may indicate a possible low bias. However, the LCS + MB for this batch were in control indicating the system was operating properly. No additional flagging by EGL is required/recommended.

SVOCs 8270C

SED-02 sample, SED-02 Dup & SED04 samples had a required dilution due to sample viscosity, associated data are flagged by the lab as "D12" & "D10". No additional flagging by EGL is required/recommended.

Pesticides 8081A

1) MS/MSD for Batch 10I1862 (associated samples: SW-01 through SW-04) had most compounds w/a %RPD exceeding the method control limits due to sample matrix effects. LCS + MB and individual analyte recoveries were in control, indicating the system was operating properly. No additional flagging is required by EGL or Test America labs.

2) MB for batch 10I2119 (associated samples: SED-01 through SED-04) had 4,4'-DDD, 4,4'-DDT, Dieldrin, and Heptachlor detected above the MDL but below the RL. Associated sample results are flagged "B" by Test America. Also, LCS had Endosulfan Sulfate above Lab control limits. As this compound was not detected in the associated samples, there is no bias & no flagging is required by TA or EGL. Also, MS had alpha-Chlordane below control limits. This may indicate a possible low bias, however, the LCS + MB were in control for this analyte indicating the system was operating properly. No additional flagging is required by EGL or TA.

[4] In addition to summary information on the Project QA Specifications sheet, details on method specified QC tests may be found in the associated method document.

Pesticides 8081A (cont.)

Additionally, for Batch 10I2119, the RPD for all compounds in the MSD exceeded the Method control limit due to sample matrix effects. The analyte recoveries were within the acceptance limits, so there is no impact to the data results. No flagging is required by EGL.

PCB 8082

For Batch 10I2120, the MB, LCS, and MS/MSD had a calibration verification recovery above the method control limits for Aroclor 1016. The analyte was not detected in the associated sediment samples above the lab PQL + the data is not impacted. No flagging by EGL is required.

Additionally the MS/MSD had Aroclor 1260 below the acceptance limits. The LCS + MB were in control for this compound indicating the system was operating properly. No flagging by EGL is required. Decachlorobiphenyl surrogate recovery for samples SED-02 + SED-01 were outside acceptance limits due to sample matrix interference. Secondary surrogate recovery was in control + the data was accepted. No additional flagging by EGL is required.

Metals 6010B

For Batch 10I1836, Al, As, Ba, Be, Ca, Cr, Mn, Na, + Zn were detected in the MB above the MDL but below the RL + are J" flagged as required. Associated sample results are flagged "B" By the lab. Additionally Antimony and Iron in the MS/MSD were outside accepted limits due to matrix interference. The Reference Sample (LCS) was in control indicating the system was operating properly. No additional flagging is required.

For Batch 10I1968, Calcium was detected in the MB above the MDL but below the RL and flagged "J" by the lab as required. Associated Sample results are flagged "B" by the lab. No additional flagging by EGL is required.

Project Quality Assurance Specifications

Project No: PL-0637

Revision No: 0

Project Name: Panasonic

By: M. Litasi (validator)

Field QA/QC Sample Requirements Standard ☐ Other ☑ (Indicate Below)

QA/QC Sample	Frequency of Collection (Check if Applicable)	
	Groundwater	Soil
Trip Blank	✓ 1 per Sampling Event (VOC's Only)*	✓ 1 per Sampling Event (VOC's Only)
Field Blank	✓ 1 per Day per Sampler per Sampling Technique**	✓ 1 per Day per Sampler per Sampling Technique**
Duplicate	✓ 1 per 10 samples - Minimum 1	✓ ~~None~~ 1 per 10 samples
Replicate *	☐ 1 per 10 samples - Minimum 1	✓ None
Other	☐	☐

* Note: QA/QC Sample requirements are waived at Task Manager's direction.

Parameter/Method Series (check if applicable)		Matrix	Holding Time[1]	Sample Volume/Container[2]	Filtration[3]	Preservation	Storage and Shipping
VOCs	☑ 8260B	✓ Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 624	✓ Water	14 days	2-40 ml Glass/Teflon	None	None(Colo.)HCl(other)	4°C/Overnight
SVOCs	☑ 8270C	✓ Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 625	✓ Water	7 days	2-1 liter Amber Glass/Teflon	None	None	4°C/Overnight
Metals	☑ 6010/6020	✓ Soil	6 mo.	4 oz Plastic	None	None	Any
	☐ 9000 ☐ 200	✓ Water	6 mo.	500 ml Plastic/ 250 to 500 ml Plastic (dissolved)	0.45 µm (dissolved)	HNO_3	Any
Mercury	7470A	Water	28 Days	250 to 500 ml Plastic	None	HNO_3	4°C/Overnight
BETX	☐ 8020/8021	Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 602	Water	14 days	2 - 40 ml Glass/Teflon	None	HCl (Colo. and other)	4°C/Overnight
TPH	☐ 418.1	Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 8015	Water	14 days	2-1 liter Glass/Teflon	None	HCl or H_2SO_4	4°C/Overnight
Bromide	300.0A	Soil	" >leached	4 oz Glass/Teflon	None	None	4°C/Overnight
		Water	28 days	250 ml Plastic	None	None	4°C/Overnight
Orthophosphate	365.3	Soil	" >leached	4 oz Glass/Teflon	None	None	4°C/Overnight
		Water	48 hours	250 ml Plastic	Yes	None	4°C/Overnight
Ethane, Ethene, Methane	RSK SOP-175	Water	7 days	2-40 ml Glass/Teflon	None	HCl	4°C/Overnight
NO_2/NO_3	300.0A	Water	28 days	250 ml Amber/500ml Plastic	None	H_2SO_4	4°C/Overnight
Chloride	300.0A	Water	28 days	250 ml Plastic/125 ml Glass	None	None	4°C/Overnight
Sulfate	300.0A	Water	28 days	250 ml Plastic/125 ml Glass	None	None	4°C/Overnight
Alkalinity	310.1	Water	14 days	250 ml to 1 liter Plastic	None	None	4°C/Overnight
Diss. Ammonia	350.1	Water	28 days	500 ml Amber G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
TKN	351.2	Water	28 days	500 ml Amber G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
BOD	405.1	Water	48 hours	500 ml to 1 liter Plastic	None	None	4°C/Overnight
COD	410.4	Water	28 days	250 to 500 ml G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
DOC/TOC	415.1	Water	28 days	250 to 500 ml Amber Glass	None	H_2SO_4	4°C/Overnight
Ferrous/Ferric Iron	3500-FE D	✓ Water	14 days	250 to 500 ml Plastic	None	None	4°C/Overnight
added 11/11/10 MRL	PCB/Pest.	8082/8081A	Soil & Water	7days	4oz. glass/2-1L Amber glass	None	None	4°C/overnight

* - NTE 72 hours in the field.

** - None required based on the use of dedicated, disposable sampling equipment and PPE.

[1] - Holding time is the maximum time between sample collection and laboratory preparation.

[2] - Sample volumes and containers listed are general requirements only and may vary between laboratories.

[3] - May vary between laboratories and if lab or field filtered.

Project Quality Assurance Specifications, Continued

Project No: PL-0637

Project Name: Panasonic

Revision No: 0

By: M. Litaya (validator)

Analytical QA/QC Requirements	Standard ☑		Other ☐	(Indicate Below)								
Parameter/Method (check if Applicable)	ICV % Recovery		CCV % Recovery		Lab Blanks		LCS % Recovery		Accuracy- % Recovery (Fortification)		Precision-RPD (Duplication)	
	Std.	Other	Std.	Other	Std.	Other	Std.	Other	Std.	Other	Std.	Other
✓ VOCs-8260,624,Other	90-110		90-110		ND		80-120		80-120		0-20	
✓ SVOCs-8270,625	90-110		90-110		ND		80-120		80-120		0-20	
✓ Metals-6010/6020,9000, 200 Series	90-110		90-110		ND		80-120		80-120		0-20	
BETX-8020/8021,602	90-110		90-110		ND		80-120		80-120		0-20	
TPH-418.1,8015	90-110		90-110		ND		80-120		80-120		0-20	
Bromide, Nitrate, Nitrite, Chloride, Sulfate-300.0A	90-110		90-110		ND		80-120		80-120		0-20	
Orthophospate-365.3	90-110		90-110		ND		80-120		80-120		0-20	
Ethane, Ethene, Methane-RSK SOP-175	85-115		85-115		ND		85-115		85-115		0-20	
Alkalinity-310.1	90-110		90-110		ND		80-120		80-120		0-20	
Diss. Ammonia-350.1	90-110		90-110		ND		80-120		80-120		0-20	
TKN-351.2	90-110		90-110		ND		80-120		80-120		0-20	
BOD-405.1	90-110		90-110		ND		80-120		80-120		0-20	
COD-410.4	90-110		90-110		ND		80-120		80-120		0-20	
DOC, TOC-415.1	90-110		90-110		ND		80-120		80-120		0-20	
Ferrous Iron, Ferric Iron-3500-FE D	90-110		90-110		ND		80-120		80-120		0-20	

Note: Laboratory specific acceptance criteria are preferred by EPA, and will be used for verification assessments in each category during data validation. Criteria presented in this table are general guidelines and may vary for each laboratory based on internal QA/QC procedures.

PCB/Pest - lab specific:

TABLE 10

SUMMARY OF SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES

Former PPDLA Facility
Highland, New York

Matrix	USEPA Method	Analyte	Container	Hold Time (days)	Preservative
Solid	8260B	TCL VOCs	4 oz glass with teflon lined lid	14	4° C
	8270C	TCL SVOCs	4 oz glass with teflon lined lid	14	4° C
	6010B	TAL Metals	4 oz glass with teflon lined lid	6 Months	4° C
	8082	PCBs	4 oz glass with teflon lined lid	14	4° C
	8081A	Pesticides	4 oz glass with teflon lined lid	14	4° C
Aqueous	8260B	TCL VOCs	3, 40ml glass VOA vial, with speta cap	14	HCl/ 4° C
	8270C	TCL SVOCs	2, 1 L amber glass	7	4° C
	6010B	TAL Metals	1 L HDPE	6 Months	HNO_3/ 4° C
	8082	PCBs	2, 1 L amber glass	7	4° C
	8081A	Pesticides	2, 1 L amber glass	7	4° C

Data Validation Status Report

Validated by: C. Warren *Date:* 11/16/10
Approved by: M. Was *Date:* 11/18/10
Entered by: N/A *Date:* _____
Proofed by: N/A *Date:* _____

Project Name/ No: Panasonic PL-0637
Task Manager: E. Lovendusk
Data Package #: GW-01
Name of Laboratory: Test America
Laboratory Job #'s: RTJ2011

The following are included in this package: (check if applicable)

N/A Split Sample(s) Report :
Name of Laboratory: _____
Laboratory Job #: _____
✓ QAP form
✓ COC
✓ Field Forms
✓ Field Notes
N/A Preliminary Analytical Results
✓ Final Analytical Report

List of Samples included in Group

SAMPLES		FIELD QA/QC SAMPLES
DOMESTIC WELL	SC-07	SC-02 DUP
FRONT YARD	SC-07B	SC-03 DUP
PROCESS WELL		SC-06B DUP
SC-01		
SC-02		
SC-03		FB 10/26/10
SC-03B		TRIP BLANK 10/25/10
SC-04		TRIP BLANK 10/26/10
SC-05		TRIP BLANK 10/27/10
SC-06		
SC-06B		

Data Validation Documentation

Project Name Panasonic

Validator C. Warren

Project No. PL-0637

Project/Task Mgr E. Lovenduski

Task Name Site Characterization

Date of Validation 4/16/10

Data Package No. GW-01

Sample Custody and Handling

Total number of samples analyzed in this data package (does not include QA samples) 13

Randomly select one in twenty samples.

Number of samples tracked for this data package 2

List samples tracked FRONT YARD, SC-06B

For the selected samples:

- Were all samples received by the lab under chain of custody? √yes __no
- Were all sample identities maintained by the lab? (Evaluate by comparing sample IDs, and date and time of collection listed on generator's chain of custody with field water quality forms, and the lab's chain of custody and lab confirmation sheet, as applicable.) √yes __no
- Were field calculations (e.g., conductivities and water levels) accurate? N/A yes __no
- Were the samples collected, preserved and shipped in accordance with project specs?[1] √yes __no
- Were the samples analyzed within the required holding times?[1] √yes __no

If any problems were detected in the review of selected samples, all samples represented by the data package must be evaluated. Was it necessary to evaluate all samples? __yes √no

Provide any additional comments below and on attached sheets, as necessary, including any custody and handling exceptions noted in the laboratory narrative(s) and any flags placed by data validation personnel to denote problems or issues associated with sample collection, site conditions, or documentation.

[1] Refer to the Project Quality Assurance Specifications sheets.

Field QA Samples

Number of Trip Blanks required[1,2] 3 (1 per cooler)
Number of Trip Blanks collected 1

Were a sufficient number of Trip Blanks collected? ✓yes __no
Were contaminants detected in any Trip Blank? __yes ✓no
If contaminants[3] were reported for the Trip Blank(s), list the affected samples (i.e., those collected prior to Trip Blank) and the concentration(s) of contaminant(s) reported in both the affected samples and the Trip Blank(s) below and on additional sheets, as necessary. Also, specify any flags placed by data validation personnel to denote problems or issues associated with the Trip Blank(s).

Acetone was detected in TB collected on 10/26/10 (Lab# RTJ 2082-10) at 3.5 ug/L which is above the MDL but below the RL and flagged "J" by the lab as required. No additional flagging is required by EGL.

Number of Field Blanks required[1] 1 (1 per event)
Number of Field Blanks collected 1

Were a sufficient number of Field Blanks collected? ✓yes __no
Were contaminants detected in any Field Blank? __yes __no
If contaminants were detected in the Field Blank(s), list the affected samples and the concentration(s) of contaminant(s) reported in both the affected samples and the field blank below and on additional sheets, as necessary. Also, specify any flags placed by data validation personnel to denote problems or issues associated with the Field Blank(s).

Bis(2-ethylhexyl) phthalate was detected in the FB at 3.4 ug/L which is above the MDL but below the RL and flagged "J" by the lab as required. This compound was also detected in the MB at 3.3 ug/L. Associated sample results are flagged "B" by the lab as required. No additional flagging by EGL is required.

[2] Field QA sample requirements are waived on special sampling events at the Task Manager's direction.
[3] For purposes of data validation, contaminants are defined as compounds reported above the laboratory's reporting limits.

Field QA Samples (cont.)

Number of Field Duplicates required[1]	3
Number of Field Duplicates collected	2
Were a sufficient number of Field Duplicates collected?	✓yes __no
Number of Replicates (Splits) required[1]	0
Number of Replicates collected	0
Were a sufficient number of Replicates collected?	N/A __yes __no

Discuss Duplicate/Replicate sample results below and on attached sheets, as necessary. Specifically, include a discussion of the relative concentration relationship between the samples and their Duplicates/Replicates (i.e., the difference between the sample results and the Duplicate/Replicate results where the concentrations are less than 10 times the Reporting Limits and the calculated Relative Percent Difference where the concentrations are greater than 10 times the Reporting Limit). For Duplicate samples, also include a discussion of how the sample results and Duplicate results fall within the historic ranges for these sample locations. Finally, specify any flags placed by data validation personnel to denote problems or issues associated with the Duplicate/Replicate sample(s).

- All sample/sample DUP results (where the sample results are <5X R.L.) are +/- the R.L.

- RPD's for all sample/sample DUP results (where the sample results are >5X R.L.) are <20%

COMPARE SA / DUP FOR VALIDATION

Client_samp_id	Samp_date	Analyte_Name	Result (ug/L)	Q	RL
SC-03	10/25/2010	Acetone	5.5	J	10
SC-03 DUP	10/25/2010	Acetone	4.8	J	10

SD $5.5 \pm 10 = {}^{15.5}_{0}$ 4.8 in range (OK)

Client_samp_id	Samp_date	Analyte_Name	Result (mg/kg)	Q	RL
SC-03	10/25/2010	Aluminum	0.12	J	0.2
SC-03 DUP	10/25/2010	Aluminum	0.117	J	0.2
SC-03	10/25/2010	Barium	0.0635		0.002
SC-03 DUP	10/25/2010	Barium	0.0633		0.002
SC-03	10/25/2010	Cadmium	0.0004	J	0.001
SC-03 DUP	10/25/2010	Cadmium	0.0003	J	0.001
SC-03	10/25/2010	Calcium	138		0.5
SC-03 DUP	10/25/2010	Calcium	137		0.5
SC-03	10/25/2010	Chromium	ND		0.004
SC-03 DUP	10/25/2010	Chromium	0.0014	J	0.004
SC-03	10/25/2010	Cobalt	ND		0.004
SC-03 DUP	10/25/2010	Cobalt	0.0009	J	0.004
SC-03	10/25/2010	Iron	0.127		0.05
SC-03 DUP	10/25/2010	Iron	0.136		0.05
SC-03	10/25/2010	Magnesium	11.1		0.2
SC-03 DUP	10/25/2010	Magnesium	11.3		0.2
SC-03	10/25/2010	Manganese	0.663		0.003
SC-03 DUP	10/25/2010	Manganese	0.674		0.003
SC-03	10/25/2010	Nickel	0.0021	J	0.01
SC-03 DUP	10/25/2010	Nickel	0.0018	J	0.01
SC-03	10/25/2010	Potassium	3.26		0.5
SC-03 DUP	10/25/2010	Potassium	3.26		0.5
SC-03	10/25/2010	Sodium	181		1
SC-03 DUP	10/25/2010	Sodium	182		1
SC-03	10/25/2010	Zinc	0.0022	J	0.01
SC-03 DUP	10/25/2010	Zinc	ND		0.01

1 $0.12 \pm 0.2 = {}^{0.32}_{0}$ (OK)

0.01 $RPD = \frac{0.0635 - 0.0633}{((0.0635 + 0.0633)/2)} \times 100 = 0.3\%$ (OK)

0.005 $0.0004 \pm 0.001 = {}^{0.0014}_{0}$ (OK)

2.5 $RPD = \frac{138 - 137}{((138 + 137)/2)} \times 100 = 0.7\%$

0.02 ND = 0 → 0.004
0.0014 J is in range

0.02 ND = 0 → 0.004
0.0009 J is in range

0.25 $0.127 \pm 0.05 = {}^{0.177}_{0.077}$ (OK)

1 $RPD = \frac{11.3 - 11.1}{((11.3 + 11.1)/2)} \times 100 = 1.8\%$ (OK)

0.015 $RPD = \frac{0.674 - 0.663}{(\frac{0.674 + 0.663}{2})} \times 100 = 1.6\%$ (OK)

0.05 $0.0021 \pm 0.01 = {}^{0.0121}_{0}$ (OK)

2.5 RPD = 0 (OK)

5 $RPD = \frac{182 - 181}{((182 + 181)/2)} \times 100 = 0.6\%$ (OK)

0.05 $0.0022 \pm 0.01 = {}^{0.0122}_{0}$
ND = 0 → 0.01 in range (OK)

Chemical Laboratory QA Verification

Laboratory Name: Test America Laboratory Job No. RTJ 2011

List analytical methods included in report.
8260 B (VOC), 8270C(SVOC), 6010B(Metals), 8081A(Pest), 7470A(Mercury)
8082(PCBs), % solids

Verify that the lab QC tests met applicable specifications for the analytes of concern[4].

Did the lab properly flag results not meeting the Acceptance Criteria? ✓yes __no

If not, identify the additional flagging requirements below, contact the lab to discuss the situation, and request appropriate replacement pages. Document telephone conversations with the lab and attach copies of correspondence (i.e., e-mails, replacement pages).

Discuss or document any other quality assurance issues not previously addressed, if any.

8260B(VOC):

For batches 10K0099 and 10K0234, Acetone in the LCS has been designated as a poor performing compound for this method from laboratory precision + accuracy studies. The recovery limits that are listed are to be used for advisory purposes only. No additionally flagging by EGL is required.

For batch 10K0234 1,2,4-TCB had a % recovery above acceptance limits. The analyte was detected in all associated samples but is flagged "L" by the lab as required.

[4] In addition to summary information on the Project QA Specifications sheet, details on method specified QC tests may be found in the associated method document.

• 8270C (SVOCs):

For batch 10J2542 bis(2-ethylhexyl)phthalate was detected above the MDL but below the RL and was "J" flagged by the lab as required. Associated sample results are flagged "B" by the lab as required. Additionally butyl benzyl phthalate was detected above the MDL but below the RL and was "J" flagged by the lab as required. As this compound is not detected in all associated samples, no flagging is required. No additional flagging by EGL is required.

• 8081A (Pesticides):

For batch 10J2404, in MB gamma chlordane was detected above the MDL but below the RL and was flagged "J" by the lab as required. As the compound in all associated samples, no flagging required. methoxychlor had a % recovery above control limits in the LCS. However, as this compound is not detected in all associated sample, no flagging is required.

For batch 10J2543, in MB heptachlor epoxide was detected above the MDL but below the RL and was flagged "J" by the lab as required. As the compound is not detected in all associated samples,

no flagging is required.

In batches 10J2404 + 10J2543 many compounds had a calibration verification recovery above method control limits. This may indicate a high bias however these compounds were not detected in all associated samples and no flagging by Test America or EGL is required.

For samples SC-06 + SC-07 surrogate decachlorobiphenyl recovery was outside accepted limits to due sample matrix effects. Secondary surrogate recovery was within the acceptance limits.

- 8082 (PCBs)

Aroclor 1016 for the MB + LCS had a Calibration verification recovery was above the method control limit for these analytes. Analyte not detected above the laboratory PQL, data not impacted. No additional flagging by EGL is required.

- 6010B (Total Metals):

For batch 10J2602 manganese in the MB was detected above the MDL but below the RL and flagged "J" by the lab as required. Associated sample results are flagged "B" by the lab as required.

Additionally, Aluminum had a calibration verification recovery in the MB that was above the method control limit for this analyte. Analyte not detected above the laboratory PQL, data not impacted.

Project Quality Assurance Specifications

Project No: PL-0637 **Revision No:** 0

Project Name: Panasonic **By:** M. Utasi (validator)

Field QA/QC Sample Requirements **Standard** ☐ **Other** ☑ **(Indicate Below)**

QA/QC Sample	Frequency of Collection (Check if Applicable)			
	Groundwater		Soil	
Trip Blank	✓	1 per Sampling Event (VOC's Only)*	✓	1 per Sampling Event (VOC's Only)
Field Blank	✓	1 per Day per Sampler per Sampling Technique**	✓	1 per Day per Sampler per Sampling Technique**
Duplicate	✓	1 per 10 samples - Minimum 1	✓	~~Methanol~~ 1 per 10 samples
Replicate *		1 per 10 samples - Minimum 1	✓	None
Other				

*Note: QA/QC Sample requirements are waived at Task Manager's direction.

Parameter/Method Series (check if applicable)		Matrix	Holding Time[1]	Sample Volume/Container[2]	Filtration[3]	Preservation	Storage and Shipping
VOCs	☑ 8260B	✓ Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 624	✓ Water	14 days	2-40 ml Glass/Teflon	None	None(Colo.)HCl(other)	4°C/Overnight
SVOCs	☑ 8270C	✓ Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 625	✓ Water	7 days	2-1 liter Amber Glass/Teflon	None	None	4°C/Overnight
Metals	☑ 6010/6020	✓ Soil	6 mo.	4 oz Plastic	None	None	Any
	☐ 9000 ☐ 200	✓ Water	6 mo.	500 ml Plastic/ 250 to 500 ml Plastic (dissolved)	0.45 µm (dissolved)	HNO_3	Any
Mercury	7470A	Water	28 Days	250 to 500 ml Plastic	None	HNO_3	4°C/Overnight
BETX	☐ 8020/8021	Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 602	Water	14 days	2 - 40 ml Glass/Teflon	None	HCl (Colo. and other)	4°C/Overnight
TPH	☐ 418.1	Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 8015	Water	14 days	2-1 liter Glass/Teflon	None	HCl or H_2SO_4	4°C/Overnight
Bromide	300.0A	Soil	" >leached	4 oz Glass/Teflon	None	None	4°C/Overnight
		Water	28 days	250 ml Plastic	None	None	4°C/Overnight
Orthophosphate	365.3	Soil	" >leached	4 oz Glass/Teflon	None	None	4°C/Overnight
		Water	48 hours	250 ml Plastic	Yes	None	4°C/Overnight
Ethane, Ethene, Methane	RSK SOP-175	Water	7 days	2-40 ml Glass/Teflon	None	HCl	4°C/Overnight
NO_2/NO_3	300.0A	Water	28 days	250 ml Amber/500ml Plastic	None	H_2SO_4	4°C/Overnight
Chloride	300.0A	Water	28 days	250 ml Plastic/125 ml Glass	None	None	4°C/Overnight
Sulfate	300.0A	Water	28 days	250 ml Plastic/125 ml Glass	None	None	4°C/Overnight
Alkalinity	310.1	Water	14 days	250 ml to 1 liter Plastic	None	None	4°C/Overnight
Diss. Ammonia	350.1	Water	28 days	500 ml Amber G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
TKN	351.2	Water	28 days	500 ml Amber G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
BOD	405.1	Water	48 hours	500 ml to 1 liter Plastic	None	None	4°C/Overnight
COD	410.4	Water	28 days	250 to 500 ml G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
DOC/TOC	415.1	Water	28 days	250 to 500 ml Amber Glass	None	H_2SO_4	4°C/Overnight
Ferrous/Ferric Iron	3500-FE D	Water	14 days	250 to 500 ml Plastic	None	None	4°C/Overnight
added 11/11/10 PCB/Pest.	8082/8081A	Soil+Water	7days	4oz.glass/2-1LAmberglass	None	None	4°C/overnight

* - NTE 72 hours in the field.

** - None required based on the use of dedicated, disposable sampling equipment and PPE.

[1] - Holding time is the maximum time between sample collection and laboratory preparation.

[2] - Sample volumes and containers listed are general requirements only and may vary between laboratories.

[3] - May vary between laboratories and if lab or field filtered.

Project Quality Assurance Specifications, Continued

Project No: PL-0637

Project Name: Panasonic

Revision No: 0

By: M. Litaker (validator)

Analytical QA/QC Requirements	Standard ☑	Other ☐	(Indicate Below)									
Parameter/Method (check if Applicable)	ICV % Recovery		CCV % Recovery		Lab Blanks		LCS % Recovery		Accuracy- % Recovery (Fortification)		Precision-RPD (Duplication)	
	Std.	Other	Std.	Other	Std.	Other	Std.	Other	Std.	Other	Std.	Other
✓ VOCs-8260,624,Other	90-110		90-110		ND		80-120		80-120		0-20	
✓ SVOCs-8270,625	90-110		90-110		ND		80-120		80-120		0-20	
✓ Metals-6010/6020,9000, 200 Series	90-110		90-110		ND		80-120		80-120		0-20	
BETX-8020/8021,602	90-110		90-110		ND		80-120		80-120		0-20	
TPH-418.1,8015	90-110		90-110		ND		80-120		80-120		0-20	
Bromide, Nitrate, Nitrite, Chloride, Sulfate-300.0A	90-110		90-110		ND		80-120		80-120		0-20	
Orthophospate-365.3	90-110		90-110		ND		80-120		80-120		0-20	
Ethane, Ethene, Methane-RSK SOP-175	85-115		85-115		ND		85-115		85-115		0-20	
Alkalinity-310.1	90-110		90-110		ND		80-120		80-120		0-20	
Diss. Ammonia-350.1	90-110		90-110		ND		80-120		80-120		0-20	
TKN-351.2	90-110		90-110		ND		80-120		80-120		0-20	
BOD-405.1	90-110		90-110		ND		80-120		80-120		0-20	
COD-410.4	90-110		90-110		ND		80-120		80-120		0-20	
DOC, TOC-415.1	90-110		90-110		ND		80-120		80-120		0-20	
Ferrous Iron, Ferric Iron-3500-FE D	90-110		90-110		ND		80-120		80-120		0-20	

Note: Laboratory specific acceptance criteria are preferred by EPA, and will be used for verification assessments in each category during data validation. Criteria presented in this table are general guidelines and may vary for each laboratory based on internal QA/QC procedures.

PCB/Pest - lab specific:

TABLE 10

SUMMARY OF SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES

Former PPDLA Facility
Highland, New York

Matrix	USEPA Method	Analyte	Container	Hold Time (days)	Preservative
Solid	8260B	TCL VOCs	4 oz glass with teflon lined lid	14	4° C
	8270C	TCL SVOCs	4 oz glass with teflon lined lid	14	4° C
	6010B	TAL Metals	4 oz glass with teflon lined lid	6 Months	4° C
	8082	PCBs	4 oz glass with teflon lined lid	14	4° C
	8081A	Pesticides	4 oz glass with teflon lined lid	14	4° C
Aqueous	8260B	TCL VOCs	3, 40ml glass VOA vial, with speta cap	14	HCl/ 4° C
	8270C	TCL SVOCs	2, 1 L amber glass	7	4° C
	6010B	TAL Metals	1 L HDPE	6 Months	HNO_3/ 4° C
	8082	PCBs	2, 1 L amber glass	7	4° C
	8081A	Pesticides	2, 1 L amber glass	7	4° C

Data Validation Status Report

Validated by: C. Warren Date: 11/12/10
Approved by: M. Litrel Date: 11/18/10
Entered by: N/A Date:
Proofed by: N/A Date:

Project Name/ No: Panasonic PL-0637
Task Manager: E. Lavenduski
Data Package #: SOIL -01
Name of Laboratory: Test America
Laboratory Job #'s: RTI 1570, RTI 1237

The following are included in this package: (check if applicable)

N/A Split Sample(s) Report :
Name of Laboratory:
Laboratory Job #:
✓ QAP form
✓ COC
N/A Field Forms
✓ Field Notes
N/A Preliminary Analytical Results
✓ Final Analytical Report

List of Samples included in Group

SAMPLES - ISB

ISB-02 (0-1)	SC-06 (5-7)	
ISB-03 (0-2)	SC-07 (2-4)	
ISB-04 (0-1)		
ISB-01 (0-2)	QA/QC SAMPLES	
ISB-05 (0.5-2.0)	TRIP BLANK 9/16/10	
SAMPLES - SC	TRIP BLANK 9/17/10	
SC-01 (2-4)	FB 9/16/10	
SC-02 (3-5)		
SC-03 (3-5)	SC-05 (8-10) DUP	
SC-04 (6-8)	SC-06 (5-7) DUP	
SC-05 (8-10)		

Data Validation Documentation

Project Name Panasonic

Validator C. Warren

Project No. PL-0637

Project/Task Mgr E. Lovenduski

Task Name Site Characterization

Date of Validation 11/12/10

Data Package No. SOIL-01

Sample Custody and Handling

Total number of samples analyzed in this data package (does not include QA samples) 12

Randomly select one in twenty samples.

Number of samples tracked for this data package 2

List samples tracked SC-06(5-7), ISB-0(0-2)

For the selected samples:

- Were all samples received by the lab under chain of custody? ✓yes __no
- Were all sample identities maintained by the lab? (Evaluate by comparing sample IDs, and date and time of collection listed on generator's chain of custody with field water quality forms, and the lab's chain of custody and lab confirmation sheet, as applicable.) ✓yes __no
- Were field calculations (e.g., conductivities and water levels) accurate? N/Ayes __no
- Were the samples collected, preserved and shipped in accordance with project specs?[1] ✓yes __no
- Were the samples analyzed within the required holding times?[1] ✓yes __no

If any problems were detected in the review of selected samples, all samples represented by the data package must be evaluated. Was it necessary to evaluate all samples? __yes ✓no

Provide any additional comments below and on attached sheets, as necessary, including any custody and handling exceptions noted in the laboratory narrative(s) and any flags placed by data validation personnel to denote problems or issues associated with sample collection, site conditions, or documentation.

[1] Refer to the Project Quality Assurance Specifications sheets.

Field QA Samples

Number of Trip Blanks required[1,2] 2 (1 per cooler)
Number of Trip Blanks collected 2

Were a sufficient number of Trip Blanks collected? ✓yes __no
Were contaminants detected in any Trip Blank? ✓yes __no
If contaminants[3] were reported for the Trip Blank(s), list the affected samples (i.e., those collected prior to Trip Blank) and the concentration(s) of contaminant(s) reported in both the affected samples and the Trip Blank(s) below and on additional sheets, as necessary. Also, specify any flags placed by data validation personnel to denote problems or issues associated with the Trip Blank(s).

Methylene Chloride detected at 5.7 ug/L in trip blank which is above the RL of 1.0 ug/L. 10% of sample SC-03 (3-5)'s MC result of 9.9 ug/kg is 0.99 ug/kg, and SC-03 (3-5) is the only affected sample. MC conc. in TB exceeds 10% of MC conc. in the sample and therefore the MC sample result will be qualified "&" in the data transmittal.

Number of Field Blanks required[1] 1 (per event)
Number of Field Blanks collected 1

Were a sufficient number of Field Blanks collected? Xyes __no
Were contaminants detected in any Field Blank? ✓yes __no
If contaminants were detected in the Field Blank(s), list the affected samples and the concentration(s) of contaminant(s) reported in both the affected samples and the field blank below and on additional sheets, as necessary. Also, specify any flags placed by data validation personnel to denote problems or issues associated with the Field Blank(s).

Methylene Chloride detected at 5.5 ug/L in FB which is above the RL of 1.0 ug/L. All of the samples are affected except SC-03(3-5), and SC-06(5-7)DUP. 10% of the sample's conc. range from 0.76 to 1.3 ug/kg and the MC conc in FB exceeds 10% of all associated samples' concs, and therefore the MC samples results will be qualified "&" in the data transmittal.

[2] Field QA sample requirements are waived on special sampling events at the Task Manager's direction.
[3] For purposes of data validation, contaminants are defined as compounds reported above the laboratory's reporting limits.

FB (cont'd)

Aluminum and Zinc were detected below the RL and "J" flagged as required by the lab.

Barium, Calcium, Iron, Manganese, Magnesium, Potassium and Sodium were detected above the RL in the FB. As documented in the sampler's field notes, the FB was collected with spring water instead of DI water, as required. Based on professional judgement no flagging is required by EGL since spring water is known to contain these analytes at low concentrations. However, this should be noted in the data transmittal report.

Field QA Samples (cont.)

Number of Field Duplicates required[1] 2
Number of Field Duplicates collected 2
Were a sufficient number of Field Duplicates collected? ✓ yes __ no

Number of Replicates (Splits) required[1] 0
Number of Replicates collected 0
Were a sufficient number of Replicates collected? N/A yes __ no

Discuss Duplicate/Replicate sample results below and on attached sheets, as necessary. Specifically, include a discussion of the relative concentration relationship between the samples and their Duplicates/Replicates (i.e., the difference between the sample results and the Duplicate/Replicate results where the concentrations are less than 10 times the Reporting Limits and the calculated Relative Percent Difference where the concentrations are greater than 10 times the Reporting Limit). For Duplicate samples, also include a discussion of how the sample results and Duplicate results fall within the historic ranges for these sample locations. Finally, specify any flags placed by data validation personnel to denote problems or issues associated with the Duplicate/Replicate sample(s).

- All sample/sample DUP results (where the sample results are <5X R.L.) are +/- the R.L.

- RPD's for all sample/sample DUP results (where the sample results are >5X R.L.) are <20% with the exception of:

SAMPLE	ANALYTE	RESULTS	RPD	R.L.
SC-05/ SC-05 DUP	Calcium	**92000 B/ 29500 B**	102.9	282/51
SC-05/ SC-05 DUP	Manganese	**5050/ 5620**	35.8	22.5/20.4
SC-05/ SC-05 DUP	Zinc	**56.9/ 116**	68.4	2.3/2

Sample/sample DUP results in bold are flagged in the data transmittal with an "&".

No historic data for data comparison.

COMPARE SA / DUP FOR VALIDATION

Client_samp_id	Samp_date	Analyte_Name	Result (ug/kg)	Q	RL
SC-05 (8-10)	9/14/2010	Methylene Chloride	10		5.5
SC-05 (8-10) DUP	9/14/2010	Methylene Chloride	9.4		5.5
SC-05 (8-10)	9/14/2010	Diethyl phthalate	26	J	190
SC-05 (8-10) DUP	9/14/2010	Diethyl phthalate	57	J	190

5X
27.5 $10 \pm 5.5 = \begin{matrix}15.5\\4.5\end{matrix}$ OK
950 $26 \pm 190 = \begin{matrix}215\\0\end{matrix}$ OK

Client_samp_id	Samp_date	Analyte_Name	Result (mg/kg)	Q	RL
SC-05 (8-10)	9/14/2010	Aluminum	7630	B	11.3
SC-05 (8-10) DUP	9/14/2010	Aluminum	8490	B	10.2
SC-05 (8-10)	9/14/2010	Antimony	0.7	J B	16.9
SC-05 (8-10) DUP	9/14/2010	Antimony	ND		15.3
SC-05 (8-10)	9/14/2010	Arsenic	5.6		2.3
SC-05 (8-10) DUP	9/14/2010	Arsenic	6.7		2.0
SC-05 (8-10)	9/14/2010	Barium	46.2	B	0.564
SC-05 (8-10) DUP	9/14/2010	Barium	43.1	B	0.51
SC-05 (8-10)	9/14/2010	Beryllium	0.517	B	0.225
SC-05 (8-10) DUP	9/14/2010	Beryllium	0.472	B	0.204
SC-05 (8-10)	9/14/2010	Cadmium	0.039	J	0.225
SC-05 (8-10) DUP	9/14/2010	Cadmium	0.083	J	0.204
SC-05 (8-10)	9/14/2010	Calcium	92000	B	282
SC-05 (8-10) DUP	9/14/2010	Calcium	29500	B	51
SC-05 (8-10)	9/14/2010	Chromium	11.2		0.564
SC-05 (8-10) DUP	9/14/2010	Chromium	12.8		0.51
SC-05 (8-10)	9/14/2010	Cobalt	7.98		0.564
SC-05 (8-10) DUP	9/14/2010	Cobalt	7.96		0.51
SC-05 (8-10)	9/14/2010	Copper	20.9		1.1
SC-05 (8-10) DUP	9/14/2010	Copper	21.1		1
SC-05 (8-10)	9/14/2010	Iron	18300		11.3
SC-05 (8-10) DUP	9/14/2010	Iron	20000		10.2
SC-05 (8-10)	9/14/2010	Lead	10.7		1.1
SC-05 (8-10) DUP	9/14/2010	Lead	10		1
SC-05 (8-10)	9/14/2010	Magnesium	5050		22.5
SC-05 (8-10) DUP	9/14/2010	Magnesium	5620		20.4
SC-05 (8-10)	9/14/2010	Manganese	448		0.2
SC-05 (8-10) DUP	9/14/2010	Manganese	312		0.2
SC-05 (8-10)	9/14/2010	Nickel	20.3		5.64
SC-05 (8-10) DUP	9/14/2010	Nickel	22.4		5.1
SC-05 (8-10)	9/14/2010	Potassium	1230	B	33.8
SC-05 (8-10) DUP	9/14/2010	Potassium	1300	B	30.6
SC-05 (8-10)	9/14/2010	Selenium	1.2	J	4.5
SC-05 (8-10) DUP	9/14/2010	Selenium	1.7	J	4.1
SC-05 (8-10)	9/14/2010	Sodium	62.4	J	158
SC-05 (8-10) DUP	9/14/2010	Sodium	97.2	J	143
SC-05 (8-10)	9/14/2010	Vanadium	14.3		0.564
SC-05 (8-10) DUP	9/14/2010	Vanadium	15.6		0.51
SC-05 (8-10)	9/14/2010	Zinc	56.9		2.3
SC-05 (8-10) DUP	9/14/2010	Zinc	116		2
SC-05 (8-10)	9/14/2010	Mercury	0.0233		0.0210
SC-05 (8-10) DUP	9/14/2010	Mercury	0.0185	J	0.0208

56.5 $RPD = \frac{8490 - 7630}{(8490 + 7630)/2} \times 100 = 10.7\%$ OK
84.5 $0.7 \pm 16.9 = \begin{matrix}17.6\\0\end{matrix}$ ND = 0 → 15.3 OK
11.5 $5.6 \pm 2.3 = 7.9$ OK
2.82 $RPD = \frac{46.2 - 43.1}{(46.2 + 43.1)/2} \times 100 = 6.9\%$ OK
1.125 $0.517 \pm 0.225 = \begin{matrix}0.742\\0.292\end{matrix}$ OK
1.125 $0.039 \pm 0.225 = \begin{matrix}0.264\\0\end{matrix}$ OK
1410 $RPD = \frac{92000 - 29500}{(92000 + 29500)/2} \times 100 = 102.9\%$ (Flag)
2.82 $RPD = \frac{12.8 - 11.2}{(12.8 + 11.2)/2} \times 100 = 13.3\%$ OK
2.82 $RPD = \frac{7.98 - 7.96}{(7.98 + 7.96)/2} \times 100 = 0.2\%$ OK
5.5 $RPD = \frac{21.1 - 20.9}{(21.1 + 20.9)/2} \times 100 = 1\%$ OK
56.5 $RPD = \frac{20000 - 18300}{(20000 + 18300)/2} \times 100 = 8.9\%$ OK
5.5 $RPD = \frac{10.7 - 10}{(10.7 + 10)/2} \times 100 = 6.8\%$ OK
112.5 $RPD = \frac{5620 - 5050}{(5620 + 5050)/2} \times 100 = 10.7\%$ OK
1.0 $RPD = \frac{448 - 312}{(448 + 312)/2} \times 100 = 35.8\%$ (Flag)
28.2 $20.3 \pm 5.64 = \begin{matrix}25.94\\14.66\end{matrix}$ OK
169 $RPD = \frac{1300 - 1230}{(1300 + 1230)/2} \times 100 = 5.5\%$ OK
22.5 $1.2 \pm 4.5 = \begin{matrix}5.7\\0\end{matrix}$ OK
790 $62.4 \pm 97.2 = \begin{matrix}159.6\\0\end{matrix}$ OK
2.82 $RPD = \frac{15.6 - 14.3}{(15.6 + 14.3)/2} \times 100 = 8.7\%$ OK
11.5 $RPD = \frac{116 - 56.9}{(116 + 56.9)/2} \times 100 = 68.4\%$ (Flag)
0.105 $0.0233 \pm 0.0210 = \begin{matrix}0.0443\\0.0023\end{matrix}$ (Flag) OK

Client_samp_id	Samp_date	Analyte_Name	Result (ug/kg)	Q	RL
SC-06 (5-7)	9/16/2010	4,4'-DDD	75		43
SC-06 (5-7) DUP	9/16/2010	4,4'-DDD	58		39
SC-06 (5-7)	9/16/2010	4,4'-DDE	120		43
SC-06 (5-7) DUP	9/16/2010	4,4'-DDE	99		39
SC-06 (5-7)	9/16/2010	4,4'-DDT	17	J	43
SC-06 (5-7) DUP	9/16/2010	4,4'-DDT	15		39
SC-06 (5-7)	9/16/2010	Dieldrin	20	J	43
SC-06 (5-7) DUP	9/16/2010	Dieldrin	15		39
SC-06 (5-7)	9/16/2010	Endrin	ND		43
SC-06 (5-7) DUP	9/16/2010	Endrin	10		39

215 $75 \pm 43 = \begin{matrix}118\\32\end{matrix}$ OK
215 $120 \pm 43 = \begin{matrix}163\\77\end{matrix}$ OK
215 $17 \pm 43 = \begin{matrix}60\\0\end{matrix}$ OK
215 $20 \pm 43 = \begin{matrix}63\\0\end{matrix}$ OK
215 ND = 0 → 43
10 is in range OK

Chemical Laboratory QA Verification

Laboratory Name: Test America Laboratory Job No. RTI 1237

List analytical methods included in report.
8260B (VOC), 8270C (SVOC), 8081A (Pest), 7471A (Mercury), 8082 (PCB), 6010B (Metals) + % solids

Verify that the lab QC tests met applicable specifications for the analytes of concern[4].

Did the lab properly flag results not meeting the Acceptance Criteria? ✓ yes __ no

If not, identify the additional flagging requirements below, contact the lab to discuss the situation, and request appropriate replacement pages. Document telephone conversations with the lab and attach copies of correspondence (i.e., e-mails, replacement pages).

Discuss or document any other quality assurance issues not previously addressed, if any.

- 8260B (VOCs): For batch 10I1606 the MS/MSD had 1,2-DCB; 1,2-DCA; and cis-1,2-DCE were below the acceptance limits. The associated MB and LCS were in control indicating that the system was operating properly. No additional flagging by EGL is required.
- 8081A (Pesticides): For SC-06(5-7) + DUP, and SC-01(2-4) dilution was required, the surrogate spike conc. in the sample are reduced to a level where the recovery calculation does not provide useful information. The surrogate decachlorobiphenyl in the MB + LCS had calibration verification recoveries above the

[4] In addition to summary information on the Project QA Specifications sheet, details on method specified QC tests may be found in the associated method document.

Method Control limit. However, all percent recoveries were in control or could not be calculated due to sample dilution. No additional flagging by EGL is required.

6010 B (Total Metals) + 7471A (Mercury)

For batch 10I1403 ^Aluminum, Manganese + Sodium were detected in the MB above the MDL but below the RL and "J" flagged by the lab as required. Associated sample results are "B" flagged by the lab, no additional flagging by EGL is required.

For batch 10I1594 Antimony, Beryllium, Calcium, Potassium, Aluminum + Barium were detected in the MB above the MDL but below the RL and "J" flagged by the lab as required. Associated sample results are "B" flagged by the lab, no additional flagging by EGL is required. Additionally, the MS/MSD had many analytes outside the recovery limits due to sample matrix interference. However, the MB and reference sample were in control indicating the system was operating properly. Due to high levels of iron and aluminum in the MS/MSD sample, the MS/MSD % recovery could not be Calculated. Also, the % RPD for nickel in the MSD was above the RPD limit due to sample matrix interference. No additionally flagging by EGL is required.

Chemical Laboratory QA Verification

Laboratory Name: Test America Laboratory Job No. RTI 1570

List analytical methods included in report.
8260 (VOC), 8270C (SVOC), 8081A (Pest), 7470A (mercury), 8082 (PCB), 6010B (Metals), % solids

Verify that the lab QC tests met applicable specifications for the analytes of concern[4].

Did the lab properly flag results not meeting the Acceptance Criteria? ✓ yes __ no

If not, identify the additional flagging requirements below, contact the lab to discuss the situation, and request appropriate replacement pages. Document telephone conversations with the lab and attach copies of correspondence (i.e., e-mails, replacement pages).

Discuss or document any other quality assurance issues not previously addressed, if any.

[4] In addition to summary information on the Project QA Specifications sheet, details on method specified QC tests may be found in the associated method document.

Project Quality Assurance Specifications

Project No: PL-0637 **Revision No:** 0

Project Name: Panasonic **By:** M. Litasi (validator)

Field QA/QC Sample Requirements	Standard ☐	Other ☑ (Indicate Below)

QA/QC Sample	Frequency of Collection (Check if Applicable)			
	Groundwater		Soil	
Trip Blank	✓	1 per Sampling Event (VOC's Only)*	✓	1 per Sampling Event (VOC's Only)
Field Blank	✓	1 per Day per Sampler per Sampling Technique**	✓	1 per Day per Sampler per Sampling Technique**
Duplicate	✓	1 per 10 samples - Minimum 1	✓	~~None~~ 1 per 10 samples
Replicate *		1 per 10 samples - Minimum 1	✓	None
Other				

* Note: QA/QC Sample requirements are waived at Task Manager's direction.

Parameter/Method Series (check if applicable)		Matrix	Holding Time[1]	Sample Volume/Container[2]	Filtration[3]	Preservation	Storage and Shipping
VOCs	☑ 8260B	✓ Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 624	✓ Water	14 days	2-40 ml Glass/Teflon	None	None(Colo.)HCl(other)	4°C/Overnight
SVOCs	☑ 8270C	✓ Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 625	✓ Water	7 days	2-1 liter Amber Glass/Teflon	None	None	4°C/Overnight
Metals	☑ 6010/6020	✓ Soil	6 mo.	4 oz Plastic	None	None	Any
	☐ 9000 ☐ 200	✓ Water	6 mo.	500 ml Plastic/ 250 to 500 ml Plastic (dissolved)	0.45 µm (dissolved)	HNO_3	Any
Mercury	7470A	Water	28 Days	250 to 500 ml Plastic	None	HNO_3	4°C/Overnight
BETX	☐ 8020/8021	Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 602	Water	14 days	2 - 40 ml Glass/Teflon	None	HCl (Colo. and other)	4°C/Overnight
TPH	☐ 418.1	Soil	14 days	4 oz Glass/Teflon	None	None	4°C/Overnight
	☐ 8015	Water	14 days	2-1 liter Glass/Teflon	None	HCl or H_2SO_4	4°C/Overnight
Bromide	300.0A	Soil	" >leached	4 oz Glass/Teflon	None	None	4°C/Overnight
		Water	28 days	250 ml Plastic	None	None	4°C/Overnight
Orthophosphate	365.3	Soil	" >leached	4 oz Glass/Teflon	None	None	4°C/Overnight
		Water	48 hours	250 ml Plastic	Yes	None	4°C/Overnight
Ethane, Ethene, Methane	RSK SOP-175	Water	7 days	2-40 ml Glass/Teflon	None	HCl	4°C/Overnight
NO_2/NO_3	300.0A	Water	28 days	250 ml Amber/500ml Plastic	None	H_2SO_4	4°C/Overnight
Chloride	300.0A	Water	28 days	250 ml Plastic/125 ml Glass	None	None	4°C/Overnight
Sulfate	300.0A	Water	28 days	250 ml Plastic/125 ml Glass	None	None	4°C/Overnight
Alkalinity	310.1	Water	14 days	250 ml to 1 liter Plastic	None	None	4°C/Overnight
Diss. Ammonia	350.1	Water	28 days	500 ml Amber G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
TKN	351.2	Water	28 days	500 ml Amber G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
BOD	405.1	Water	48 hours	500 ml to 1 liter Plastic	None	None	4°C/Overnight
COD	410.4	Water	28 days	250 to 500 ml G/500 ml Plastic	None	H_2SO_4	4°C/Overnight
DOC/TOC	415.1	Water	28 days	250 to 500 ml Amber Glass	None	H_2SO_4	4°C/Overnight
Ferrous/Ferric Iron	3500-FE D	Water	14 days	250 to 500 ml Plastic	None	None	4°C/Overnight
PCB/Pest.	8082/8081A	Soil+Water	7 days	4oz.glass/2-1L Amber glass	None	None	4°C/overnight

added Mar 11/19

* - NTE 72 hours in the field.

** - None required based on the use of dedicated, disposable sampling equipment and PPE.

[1] - Holding time is the maximum time between sample collection and laboratory preparation.

[2] - Sample volumes and containers listed are general requirements only and may vary between laboratories.

[3] - May vary between laboratories and if lab or field filtered.

Project Quality Assurance Specifications, Continued

Project No: PL-0637

Project Name: Panasonic

Revision No: 0

By: M. Libuse (validator)

Analytical QA/QC Requirements — Standard ☑ Other ☐ (Indicate Below)

Parameter/Method (check if Applicable)	ICV % Recovery		CCV % Recovery		Lab Blanks		LCS % Recovery		Accuracy- % Recovery (Fortification)		Precision-RPD (Duplication)	
	Std.	Other	Std.	Other	Std.	Other	Std.	Other	Std.	Other	Std.	Other
✓ VOCs-8260,624,Other	90-110		90-110		ND		80-120		80-120		0-20	
✓ SVOCs-8270,625	90-110		90-110		ND		80-120		80-120		0-20	
✓ Metals-6010/6020,9000, 200 Series	90-110		90-110		ND		80-120		80-120		0-20	
BETX-8020/8021,602	90-110		90-110		ND		80-120		80-120		0-20	
TPH-418.1,8015	90-110		90-110		ND		80-120		80-120		0-20	
Bromide, Nitrate, Nitrite, Chloride, Sulfate-300.0A	90-110		90-110		ND		80-120		80-120		0-20	
Orthophospate-365.3	90-110		90-110		ND		80-120		80-120		0-20	
Ethane, Ethene, Methane-RSK SOP-175	85-115		85-115		ND		85-115		85-115		0-20	
Alkalinity-310.1	90-110		90-110		ND		80-120		80-120		0-20	
Diss. Ammonia-350.1	90-110		90-110		ND		80-120		80-120		0-20	
TKN-351.2	90-110		90-110		ND		80-120		80-120		0-20	
BOD-405.1	90-110		90-110		ND		80-120		80-120		0-20	
COD-410.4	90-110		90-110		ND		80-120		80-120		0-20	
DOC, TOC-415.1	90-110		90-110		ND		80-120		80-120		0-20	
Ferrous Iron, Ferric Iron-3500-FE D	90-110		90-110		ND		80-120		80-120		0-20	

Note: Laboratory specific acceptance criteria are preferred by EPA, and will be used for verification assessments in each category during data validation. Criteria presented in this table are general guidelines and may vary for each laboratory based on internal QA/QC procedures.

PCB/Pest - lab specific:

TABLE 10

SUMMARY OF SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES

Former PPDLA Facility
Highland, New York

Matrix	USEPA Method	Analyte	Container	Hold Time (days)	Preservative
Solid	8260B	TCL VOCs	4 oz glass with teflon lined lid	14	4° C
	8270C	TCL SVOCs	4 oz glass with teflon lined lid	14	4° C
	6010B	TAL Metals	4 oz glass with teflon lined lid	6 Months	4° C
	8082	PCBs	4 oz glass with teflon lined lid	14	4° C
	8081A	Pesticides	4 oz glass with teflon lined lid	14	4° C
Aqueous	8260B	TCL VOCs	3, 40ml glass VOA vial, with speta cap	14	HCl/ 4° C
	8270C	TCL SVOCs	2, 1 L amber glass	7	4° C
	6010B	TAL Metals	1 L HDPE	6 Months	HNO_3/ 4° C
	8082	PCBs	2, 1 L amber glass	7	4° C
	8081A	Pesticides	2, 1 L amber glass	7	4° C

Appendix H

Groundwater Sampling Field Sheets

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020

GENERAL								
WELL/LOCATION	DOMESTIC WELL							
WATER SOURCE								
DATE	10/27/10	10/27/10						
TIME	1138	1143						
SAMPLING CONDITIONS								
SAMPLING METHOD	- Direct from tap 5 minute purge @ 1138 - 1.8 gpm							
DEPTH OF SAMPLE (BGS / TOC)	@ pump							
WELL DEPTH (BGS / TOC)	NA							
WATER LEVEL (BGS / TOC)	NA							
ONE WET CASING VOLUME			For 1 inch wells: (TD-WL)x0.04=_____ gallons					
For 2 inch wells: (TD-WL)x0.16=_____ gallons			For 4 inch wells: (TD-WL)x0.65=_____ gallons					
APPEARANCE	Clear	Clear						
FIELD MEASUREMENTS								
VOLUME REMOVED (GAL)	1.0	90						
TOTAL VOLUME REMOVED (GAL)	1.0	90						
TEMPERATURE (°C or °F)	17.32	17.78						
CONDUCTIVITY (ATC, 25°C)	1.356	1.380						
pH	7.08	7.11						
REDOX (mV)	-14.0	-16.1						
DO	4.23	4.56						
TURBIDITY (NTU)	9.8	4.4						
PURGE OR SAMPLE	purge	purge						
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP								
TOTAL METALS UF/HNO_3								
PCBs UF/UP								
VOLATILE ORGANICS 524.2 UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP								
	Sampled on 10/27/10 @ 1145							
LAB/DATE SUBMITTED	TestAmerica 10/28/10							

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SAMPLER'S INITIALS _____ DATE 10/27/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 6-series / LaMotte 2020

GENERAL								
WELL/LOCATION	PROCESS WELL							
WATER SOURCE					pump rate 11/21 ~ 200 gpm			
DATE	~~10/26/10~~	10/27/10						
TIME	~~1124~~	1121						
SAMPLING CONDITIONS								
SAMPLING METHOD	Direct from tap - 5 minute purge w/ hose. Connect teflon lined poly @ end of purge to collect sample							
DEPTH OF SAMPLE (BGS / TOC)								
WELL DEPTH (BGS / TOC)	NA							
WATER LEVEL (BGS / TOC)	NA							
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04=_____ gallons							
For 2 inch wells: (TD-WL)x0.16=_____ gallons	For 4 inch wells: (TD-WL)x0.65=_____ gallons							
APPEARANCE	Clear	Clear						
FIELD MEASUREMENTS								
VOLUME REMOVED (GAL)	(5)	1.0	2					
TOTAL VOLUME REMOVED (GAL)	(5)	1.0	200					
TEMPERATURE (°C or °F)	~~19.54~~	17.39	14.02					
CONDUCTIVITY (ATC, 25°C) mS	~~0.0004~~	1.118	0.923					
pH	~~7.54~~	7.50	7.25					
REDOX (mV)	~~94.2~~	124.0	121.6					
DO	~~1.07~~	6.45	6.52					
TURBIDITY (NTU)	~~18~~	13	28					
PURGE OR SAMPLE	Purge	Purge	Purge					
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP								
TOTAL METALS UF/HNO_3								
PCBs UF/UP								
VOLATILE ORGANICS 524.2 UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP								
	Sampled on 10/27/10 @ 1132							
LAB/DATE SUBMITTED	Test America 10/28/10							

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SAMPLER'S INITIALS EJL DATE 10/27/10

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FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaM.H. 2020

3/8" ID teflon lined poly tubing

GENERAL								
WELL/LOCATION	FRONT YARD							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	~~10/26/10~~
TIME	9:49	9:54	9:59	10:04	10:09	10:14	10:19	~~10:24~~
SAMPLING CONDITIONS								
SAMPLING METHOD	GrndFos II	Pump on @ 9:48 / FLOW RATE: 1L/5 mins 200mL/min						
DEPTH OF SAMPLE (BGS / TOC)	~36'							
WELL DEPTH (BGS / TOC)	38.81							
WATER LEVEL (BGS / TOC)	11.07							
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16=_____ gallons		For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.85=_____ gallons			6" = 1.47 = 40.85 L / 154 L			
APPEARANCE	cloudy/Brown	Brown/cloudy	Brown/cloudy	cloudy/Brown	cloudy/Brown	cloudy/Brown	cloudy/Brown	
FIELD MEASUREMENTS	11.10	11.05	11.05	11.05	11.05	11.05	11.86	
VOLUME REMOVED (GAL)	1L	1L	1L	1L	1L	1L	1L	~~7L~~ 8L
TOTAL VOLUME REMOVED (GAL)	1L	2L	3L	4L	5L	6L	7L	~~8L~~ 9L
TEMPERATURE (°C or °F)	16.41	17.03	16.91	16.94	17.05	17.12	17.03	
CONDUCTIVITY (ATC, 25°C)	1.758	1.759	1.756	1.753	1.751	1.751	1.749	
pH	6.78	6.78	6.80	6.79	6.79	6.78	6.75	
REDOX (mV)	-83.0	-85.7	-90.0	-89.8	-88.0	-83.5	-78.2	
DO	0.48	0.55	0.46	0.39	0.35	0.34	0.32	
TURBIDITY (NTU)	200	160	180	150	120	100	80	
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge	purge	

SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP								
TOTAL METALS UF/HNO_3								
PCBs UF/UP								
VOLATILE ORGANICS 524.2 UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP								
	Sampled on 10/26/10 @ 1021							
LAB/DATE SUBMITTED	Test America 10/27/10							

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SAMPLER'S INITIALS SJS DATE 10/26/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020

1/2" ID teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-01							
WATER SOURCE								
DATE	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	~~10/25/10~~
TIME	~~2:51~~	2:56	3:01	3:06	3:11	3:16	3:21	~~3:26~~
SAMPLING CONDITIONS								
SAMPLING METHOD	Peristaltic Pump	Pump on @ 250	FLOW RATE = 230 mL/min					
DEPTH OF SAMPLE (BGS / TOC)	~13							
WELL DEPTH (BGS / TOC)	15.26							
WATER LEVEL (BGS / TOC)	3.42							
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16= 1.9 gallons / 7.2L	For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.65=_____ gallons							
APPEARANCE	clear	clear	clear	clear	clear	clear	clear	
FIELD MEASUREMENTS	3.55	3.71	3.73	3.77	3.76	3.75	3.76	
VOLUME REMOVED (L)	1.15 L	1.15 L	1.15 L	1.15 L	1.15 L	1.15 L	1.15 L	1.16 L
TOTAL VOLUME REMOVED (L)	1.15 L	2.3 L	3.45 L	4.6 L	5.75	6.9	8.05	~~9.2~~
TEMPERATURE (°C or °F)	15.23	14.86	14.75	14.68	14.68	14.63	14.58	
CONDUCTIVITY (ATC, 25°C)	0.654	0.643	0.639	0.636	0.634	0.633	0.634	
pH	6.70	6.56	6.52	6.49	6.46	6.45	6.44	
REDOX (mV)	-102.8	-111.0	-114.8	-115.1	-117.0	-118.1	-119.2	
DO	1.36	0.82	0.57	0.31	0.29	0.29	0.28	
TURBIDITY (NTU)	15	9.6	7.8	7.4	5.4	5.0	4.9	
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge	purge	~~purge~~
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
	Sampled on 10/25/10 @ 1525							
LAB/DATE SUBMITTED	Test America - 10/28/10							

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SAMPLER'S INITIALS EL DATE 10/25/10

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FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020
Via 1/4" ID teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-02							
WATER SOURCE								
DATE	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	~~10/25/10~~	
TIME	15:40	15:45	15:50	15:55	16:00	16:05	~~16:10~~	
SAMPLING CONDITIONS								
SAMPLING METHOD	Peristaltic Pump	Pump on @ 1533		Flow rate: 250 mL/min				
DEPTH OF SAMPLE (BGS / TOC)	~11.5'							
WELL DEPTH (BGS / TOC)	13.59							
WATER LEVEL (BGS / TOC)	3.64'							
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16= 1.62 gallons 6.1 L			For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.65=_____ gallons					
APPEARANCE	~~cloudy~~ cloudy	cloudy	cloudy	cloudy	cloudy	slightly cloudy		
FIELD MEASUREMENTS	5.05'	5.38	5.69	6.00	6.28'	7.68		
VOLUME REMOVED (GAL)	1L	1L	1L	1L	1L	1L	1L	
TOTAL VOLUME REMOVED (GAL)	1L	2L	3L	4L	5L	6L	7L	
TEMPERATURE (C or °F)	18.41	18.48	18.48	18.49	18.53	18.56		
CONDUCTIVITY (ATC, 25°C)	1.41	1.416	1.416	1.424	1.425	1.488		
pH	6.81	6.80	6.80	6.80	6.80	6.78		
REDOX (mV)	-30.7	-29.0	-26.2	-23.0	-22.6	-12.7		
DO	0.57	0.55	0.52	0.62	0.61	0.57		
TURBIDITY (NTU)	450	500	450	340	230	65		
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge		
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP	X	DUP @ 1530						
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
	Sampled on 10/25/10 @ 1608							
LAB/DATE SUBMITTED	Test America 10/26/10							

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SAMPLER'S INITIALS: SB DATE: 10/25/10

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FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 6920XL / LaMotte 2020

½" FD Teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-03							
WATER SOURCE								
DATE	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10
TIME	12:17	12:22	12:27	12:32	12:37	12:42	12:47	12:52
SAMPLING CONDITIONS								
SAMPLING METHOD	Pump on @ 12:13 / Flow rate 225 mL/min							
DEPTH OF SAMPLE (BGS / TOC)	~ 15'							
WELL DEPTH (BGS / TOC)	16.59'							
WATER LEVEL (BGS / TOC)	7.66'							
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16= 1.45 gallons / 5.5L	For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.65=_____ gallons							
APPEARANCE	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy
FIELD MEASUREMENTS	7.73	7.74	7.71	7.72	7.74	7.73	7.74	7.73
VOLUME REMOVED (GAL)	1.125L	1.125L	1.125L	1.125L	1.125L	1.125L	1.125	1.125
TOTAL VOLUME REMOVED (GAL)	1.125L	2.25L	3.375L	4.5L	5.625	6.75	7.875	9
TEMPERATURE (°C or °F)	20.01	19.68	19.59	19.53	19.45	19.33	19.25	19.22
CONDUCTIVITY (ATC, 25°C)	0.946	0.925	0.953	0.981	1.017	1.074	1.128	1.177
pH	7.05	6.90	6.83	6.81	6.79	6.77	6.78	6.78
REDOX (mV)	86.0	90.2	103.3	111.2	119.3	114.7	110.9	108.3
DO	1.38	0.74	0.57	0.55	0.64	0.68	0.43	0.51
TURBIDITY (NTU)	960	800	600	340	160	80	39	19
PURGE OR SAMPLE	Purge	Purge	purge	Purge	purge	purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP	✓ + Dup							
TOTAL METALS UF/HNO_3	✓ + Dup							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	✓ + Dup							
SEMIVOLATILE ORGANICS UF/UP	✓ + Dup							
	Sampled on 10/25/10 @ 12:55							
LAB/DATE SUBMITTED	Test America 10/26/10							

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SAMPLER'S INITIALS MS DATE 10/25/10

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FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 6000XL / LaMotte 2020

(DD) 3/8" Teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-03B							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10
TIME	10:38	10:43	10:48	10:53	10:58	11:03	11:08	11:13
SAMPLING CONDITIONS								
SAMPLING METHOD	Pump ON @ 10:38 / FLOW RATE: 125 mL/min * @11:05							
DEPTH OF SAMPLE (BGS / TOC)	~30							
WELL DEPTH (BGS / TOC)	32.43'							
WATER LEVEL (BGS / TOC)	8.02'							
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16=_____ gallons	For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.65=15.9 gallons / 60.3 L							
APPEARANCE	clear	clear	clear	clear	clear	clear	clear	clear
FIELD MEASUREMENTS	8.05	8.37	9.99	9.75	11.05	11.63	12.06	14.25
VOLUME REMOVED (L)	3.75 L	3.75 L	3.75 L	3.75 L	3.75 L	3.75 L	~~3.75 L~~	~~3.75 L~~ 0.625 L
TOTAL VOLUME REMOVED (L)	3.75 L	7.5 L	11.25 L	15 L	18.75 L	22.50 L	23.12	~~23.75~~ 23.75 L
TEMPERATURE (°C or °F)	18.52	17.84	17.29	17.88	17.51	17.73	18.20	17.76
CONDUCTIVITY (ATC, 25°C)	1.322	1.373	1.376	1.375	1.370	1.367	1.365	1.358
pH	7.14	7.09	7.09	7.11	7.12	7.15	7.17	7.18
REDOX (mV)	-150.9	-143.2	-149.1	-152.8	-163.8	-173.3	-176.1	-188.5
DO	2.50	0.99	0.46	0.47	0.34	0.33	0.34	0.28
TURBIDITY (NTU)	160	230	200	150	140	120	90	85
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP								
TOTAL METALS UF/HNO_3								
PCBs UF/UP	See PG 2							
VOLATILE ORGANICS UF/HCl								
SEMIVOLATILE ORGANICS UF/UP								
LAB/DATE SUBMITTED								

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SAMPLER'S INITIALS ES DATE 10/26/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.)

GENERAL								
WELL/LOCATION	SC-03B							
WATER SOURCE								SAMPLE - ex situ
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10
TIME	11:18	11:23	11:28	11:33	11:38	11:43	11:48	1627
SAMPLING CONDITIONS								
SAMPLING METHOD	PUMP ON @ 16:27							
DEPTH OF SAMPLE (BGS / TOC)	~30							
WELL DEPTH (BGS / TOC)	32.43							
WATER LEVEL (BGS / TOC)	8.02' (18.89') after letting refill							
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04=_____ gallons							
	For 2 inch wells: (TD-WL)x0.16=_____ gallons			For 4 inch wells: (TD-WL)x0.65=_____ gallons				Sample - ex situ
APPEARANCE	clear	clear	clear	clear	clear	clear	clear	cloudy grey
FIELD MEASUREMENTS	15.75'	16.47	17.85'	19.09'	21.33	24.60	27.40	14.89'
VOLUME REMOVED (GAL)	0.625L	0.625L	0.625L	0.625L	0.625L	0.625L	0.625L	
TOTAL VOLUME REMOVED (GAL)	24.37L	25L	25.6L	26.25L	26.875L	27.5L	28.125	
TEMPERATURE (°C or °F)	17.48	17.26	17.79	17.90	17.81	17.87	17.94	17.49
CONDUCTIVITY (ATC, 25°C)	1.352	1.338	1.291	1.253	1.205	1.160	1.149	1.499
pH	7.19	7.21	7.28	7.32	7.36	7.38	7.30	7.51
REDOX (mV)	-199.9	-207.7	-230.9	-238.7	-239.5	-236.4	-215.4	-25.5
DO	0.21	0.20	0.16	0.08	0.12	0.09	0.12	3.14
TURBIDITY (NTU)	85	80	85	85	110	130	170	179
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
	Sampled on 10/26/10 @ 1627							
LAB/DATE SUBMITTED	Test America	10/27/10						

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SAMPLER'S INITIALS ES DATE 10/26/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020
1/4" ID teflon lined poly tubing

GENERAL									
WELL/LOCATION	SC-04								
WATER SOURCE									
DATE	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10
TIME	11:09	11:14	11:19	11:24	11:29	11:34	11:39	11:44	11:49
SAMPLING CONDITIONS									
SAMPLING METHOD	Peristaltic pump. geo 104 Flow: 200 ml/min								
DEPTH OF SAMPLE (BGS / TOC)	~12'								
WELL DEPTH (BGS / TOC)	14.09								
WATER LEVEL (BGS / TOC)	8.26								
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16= .95 gallons 3.6 L; For 1 inch wells: (TD-WL)x0.04= gallons; For 4 inch wells: (TD-WL)x0.65= gallons									
APPEARANCE	clear	clear	clear	clear	clear	clear	clear	clear	clear
FIELD MEASUREMENTS	8.28	8.29	8.29	8.30	8.35	8.42	8.41	8.44	8.43
VOLUME REMOVED (L)	1.0 L	1.0 L	1.0 L	1.0 L	1.0 L	1.0 L	1.0 L	1.0 L	1.0 L
TOTAL VOLUME REMOVED (L)	1.0 L	2.0 L	3.0 L	4.0 L	5.0 L	6.0 L	7.0 L	8.0 L	9.0 L
TEMPERATURE (°C or °F)	19.06	19.13	19.31	19.48	19.50	19.56	19.61	19.59	19.52
CONDUCTIVITY (ATC, 25°C)	1.056	1.157	1.196	1.225	1.238	1.243	1.255	1.260	1.268
pH	6.75	6.70	6.70	6.68	6.67	6.64	6.63	6.61	6.62
REDOX (mV)	71.3	82.5	82.3	83.3	86.2	92.8	101.1	105.9	104.8
DO	1.60	0.87	0.68	0.53	0.50	0.43	0.37	0.37	0.35
TURBIDITY (NTU)	150	60	29	17	12	25	19	16	10
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge	purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS									
Pesticides									
DISSOLVED METALS UF/UP	α								
TOTAL METALS UF/HNO$_3$	α								
PCBs UF/UP									
VOLATILE ORGANICS UF/HCl	α								
SEMIVOLATILE ORGANICS UF/UP	α								
	Sampled on 10/25/10 @ 1150								
LAB/DATE SUBMITTED	TestAmerica 10/26/10								

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SAMPLER'S INITIALS [initials] DATE 10/25/10

C:\Users\Eric Lovenduski\Documents\EnviroGroup Projects\Panasonic\Site Characterization Field Work\Field Water Quality Sampling

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020

3/8" teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-04B							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10
TIME	8:38	8:43	8:48	8:53	8:58	9:03	9:08	9:13
SAMPLING CONDITIONS								
SAMPLING METHOD	Grundfos II pump ~ 0837				Flow rate: 500 mL/min			
DEPTH OF SAMPLE (BGS / TOC)	~27'							
WELL DEPTH (BGS / TOC)	29.45'							
WATER LEVEL (BGS / TOC)	8.33'							
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04= gallons							
For 2 inch wells: (TD-WL)x0.16= gallons	For 4 inch wells: (TD-WL)x0.65= 13.8 gallons / 52 L							
APPEARANCE	clear	clear	clear	clear	clear	clear	clear	clear
FIELD MEASUREMENTS	8.33'	8.42	8.44	8.44	8.44	8.53	8.60	8.59
VOLUME REMOVED (L)	2.5 L	2.5 L	2.5 L	2.5 L	2.5 L	2.5 L	2.5 L	2.5 L
TOTAL VOLUME REMOVED (L)	2.5 L	5 L	7.5 L	10.0 L	12.5 L	15 L	17.5 L	20 L
TEMPERATURE (°C or °F)	16.69	17.03	17.25	17.39	17.55	17.48	17.41	17.56
CONDUCTIVITY (ATC, 25°C)	1.138	1.137	1.135	1.132	1.127	1.095	1.028	1.019
pH	7.16	7.11	7.11	7.10	7.09	7.08	6.99	6.95
REDOX (mV)	-94.4	-97.3	-100.0	-102.0	-103.9	-104.8	-90.6	-79.1
DO	7.59	5.31	3.38	2.07	1.35	0.81	0.56	0.43
TURBIDITY (NTU)	36	33	27	28	26	32	20	12
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP								
TOTAL METALS UF/HNO_3								
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	See PSL							
SEMIVOLATILE ORGANICS UF/UP								
LAB/DATE SUBMITTED								

EnviroGroup Limited

SAMPLER'S INITIALS ES DATE 10/26/10

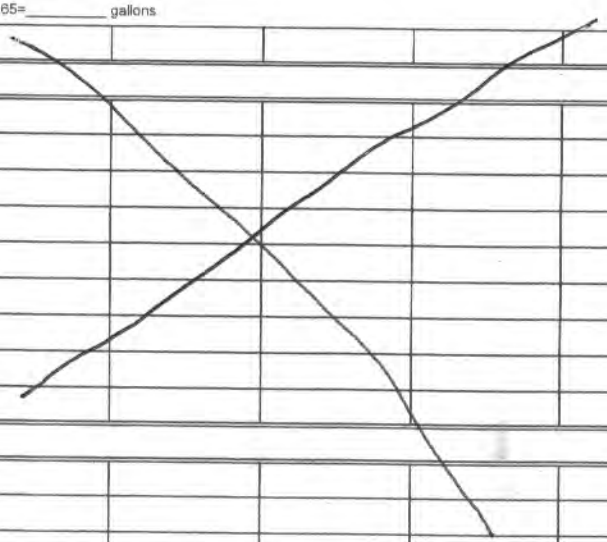
FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.)

GENERAL								
WELL/LOCATION	SC-04B							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10					
TIME	9:18	9:23	9:28					
SAMPLING CONDITIONS								
SAMPLING METHOD	~~SE-04B~~ SubJ			FLOW RATE = 900 mL/min				
DEPTH OF SAMPLE (BGS / TOC)								
WELL DEPTH (BGS / TOC)								
WATER LEVEL (BGS / TOC)	~~8.59~~ 8.50							
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04=_____ gallons							
	For 2 inch wells: (TD-WL)x0.16=_____ gallons		For 4 inch wells: (TD-WL)x0.65=_____ gallons					
APPEARANCE	clear	clear	clear					
FIELD MEASUREMENTS	8.54'	8.55	8.54					
VOLUME REMOVED (GAL)	4.5 L	4.5 L	4.5 L					
TOTAL VOLUME REMOVED (GAL)	4.5 L	29.0 L	33.5					
TEMPERATURE (°C or °F)	17.64	17.66	17.73					
CONDUCTIVITY (ATC, 25°C)	1.024	1.032	1.039					
pH	6.91	6.90	6.89					
REDOX (mV)	-72.2	-68.1	-64.1					
DO	0.34	0.31	0.30					
TURBIDITY (NTU)	9.9	7.3	5.5					
PURGE OR SAMPLE	purge	purge	purge					
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
	~~Sampled @ 0930~~		Sampled on 10/26/10 @ 0930					
LAB/DATE SUBMITTED	Test America 10/27/10							



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SAMPLER'S INITIALS EJL DATE 10/26/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / Lamotte 2020
¼" ID teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-05							
WATER SOURCE								
DATE	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10		
TIME	10:10	10:15	10:20	10:25	10:30	10:35		
SAMPLING CONDITIONS								
SAMPLING METHOD	Peristaltic Pump	pump on @ 1010 7		Flow: ~175 mL/min				
DEPTH OF SAMPLE (BGS / TOC)	~10'							
WELL DEPTH (BGS / TOC)	11.71	* 10:29 adjusted flow rate to 100 mL/min						
WATER LEVEL (BGS / TOC)	3.03	pump off @ 10:34 pumped dry of water						
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16= 0.4 gallons 1.3 L		For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.65=_____ gallons			Returned 1637 & filled remaining sample bottles (SVOCs + Metals)			
APPEARANCE	clear	clear	clear	clear	clear			
FIELD MEASUREMENTS								
VOLUME REMOVED (gal)(L)	.875 L	.875 L	.875 L	.875 L	.5 L			
TOTAL VOLUME REMOVED (gal)(L)	.875 L	1.75 L	2.625 L	3.5 L	4.0 L			
TEMPERATURE (°C or °F)	16.10	16.10	16.10	16.10	16.10			
CONDUCTIVITY (ATC, 25°C)	0.793	0.793	0.793	0.793	0.793			
pH	6.65	6.65	6.65	6.65	6.65			
REDOX (mV)	-88.8	-88.8	-88.8	-88.8	-88.8			
DO	0.27	0.27	0.27	0.27	0.27			
TURBIDITY (NTU)	50	21	21	37	50			
PURGE OR SAMPLE	purge	purge	purge	purge	purge			
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
	Sampled 10/25/10 @ 1038							
LAB/DATE SUBMITTED	Test America - 10/26/10							

EnviroGroup Limited

SAMPLER'S INITIALS _____ DATE _____

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 6920 V2 LaMotte 2020
1/4" ID Teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-06							
WATER SOURCE								
DATE	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10
TIME	0855	9:00	9:05	9:10	9:15	9:20	9:25	9:30
SAMPLING CONDITIONS								
SAMPLING METHOD	Peristaltic Pump	Pump on @ 0851	flow rate = 240 mL/min					
DEPTH OF SAMPLE (BGS / TOC)	~14'							
WELL DEPTH (BGS / TOC)	16.25							
WATER LEVEL (BGS / TOC)	5.06							
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16= 1.8 gallons / 6.9 L		For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.65=_____ gallons						
APPEARANCE	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy
FIELD MEASUREMENTS	5.06	5.09	5.09	5.08	5.09	5.08	5.08	5.08
VOLUME REMOVED (L)	1.2 L	1.2 L	1.2 L	1.2 L	1.2 L	1.2 L	1.2 L	1.2 L
TOTAL VOLUME REMOVED (GAL)	1.2 L	2.4 L	3.6 L	4.8 L	6.0 L	7.2 L	8.4 L	9.6 L
TEMPERATURE (°C or °F)	15.95	16.04	16.03	16.10	16.10	16.10	16.10	16.10
CONDUCTIVITY (ATC, 25°C)	0.688	0.697	0.741	0.793	0.793	0.793	0.793	0.793
pH	6.71	6.67	6.63	6.66	6.66	6.66	6.66	6.66
REDOX (mV)	-76.9	-83.8	-86.9	-88.8	-88.8	-88.8	-88.8	-88.8
DO	0.61	0.42	0.32	0.27	0.27	0.27	0.27	0.27
TURBIDITY (NTU)	>1100	>1100	>1100	>1100	>1100	700	550	400
PURGE OR SAMPLE	purge	purge	purge	purge	purge	purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides	X							
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
	Sample 10/25/10 @ 0943							
LAB/DATE SUBMITTED	Test America 10/26/10							

EnviroGroup Limited

SAMPLER'S INITIALS ____ DATE 10/25/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / L-Motte 2020

3/8" ID teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-06B							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10
TIME	12:15	12:20	12:25	12:30	12:35	12:40	12:45	12:50
SAMPLING CONDITIONS								
SAMPLING METHOD	Grundfos II	PUMP ON @ 12:15	FLOW RATE = 1300 mL/min					
DEPTH OF SAMPLE (BGS / TOC)	~32'							
WELL DEPTH (BGS / TOC)	34.49'							
WATER LEVEL (BGS / TOC)	~~5.49~~ 4.99'							
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04=_____ gallons							
For 2 inch wells: (TD-WL)x0.16=_____ gallons	For 4 inch wells: (TD-WL)x0.65= 19.2 gallons / 72.6 L							
APPEARANCE	clear	clear	clear	clear	clear	clear	clear	clear
FIELD MEASUREMENTS	5.02'	5.03'	6.04	5.05	5.04	5.04	5.04	5.04
VOLUME REMOVED (~~GAL~~)	6.5 L	6.5 L	6.5 L	6.5 L	6.5 L	6.5 L	6.5 L	6.5 L
TOTAL VOLUME REMOVED (~~GAL~~)	6.5 L	13 L	19.5 L	26 L	32.5 L	39 L	35.5 L	42 L
TEMPERATURE (°C or °F)	16.37	15.97	16.07	16.01	15.93	15.89	15.89	15.84
CONDUCTIVITY (ATC, 25°C)	0.992	1.019	1.007	1.002	0.997	0.993	0.995	0.992
pH	7.14	6.78	6.68	6.58	6.51	6.51	6.51	6.52
REDOX (mV)	-50.6	-20.7	-11.4	-4.9	0.0	-1.2	-1.3	-1.9
DO	2.95	0.51	0.39	0.34	0.32	0.26	0.26	0.24
TURBIDITY (NTU)	16	5.0	4.2	5.5	3.0	3.6	3.8	4.4
PURGE OR SAMPLE	Purge	purge	purge	purge	purge	Purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides	X + DUP							
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
	Sampled on 10/26/10 @ 1253							
LAB/DATE SUBMITTED	Test America 10/27/10							

EnviroGroup Limited

SAMPLER'S INITIALS EJL DATE 10/26/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020

1/4" ID teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-07	Pump on @ 0735 ~260 ml/min						
WATER SOURCE								
DATE	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10	10/25/10
TIME 0740	~~10/25/10~~	0745	7:50	7:55	8:00	8:05	8:10	8:15
SAMPLING CONDITIONS								
SAMPLING METHOD	Peristaltic Pump							
DEPTH OF SAMPLE (BGS / TOC)	9.9'							
WELL DEPTH (BGS / TOC)	11.95'							
WATER LEVEL (BGS / TOC)	2.47'							
ONE WET CASING VOLUME For 2 inch wells: (TD-WL)x0.16= 1.5 gallons / 5.8 l		For 1 inch wells: (TD-WL)x0.04=_____ gallons For 4 inch wells: (TD-WL)x0.65=_____ gallons						
APPEARANCE	clear	clear	clear	clear	clear	clear	clear	clear
FIELD MEASUREMENTS	2.53'	2.53	2.54	2.54	2.55	2.55	2.56	
VOLUME REMOVED (GAL)	1.3 l	1.3 l	1.3 l	1.3 l	1.3 l	1.3 l	1.3 l	1.3 l
TOTAL VOLUME REMOVED (GAL)	1.3 l	2.6 l	3.9 l	5.2 l	6.5 l	7.8 l	9.1 l	10.4 l
TEMPERATURE (°C or °F)	15.62	15.73	15.70	15.71	15.81	15.82	15.80	15.77
CONDUCTIVITY (ATC, 25°C)	0.780	0.728	0.698	0.691	0.686	0.682	0.674	0.674
pH	6.55	6.55	6.54	6.51	6.52	6.50	6.49	6.49
REDOX (mV)	-94.8	-91.7	-89.2	-87.6	-87.7	-87.4	-86.8	-86.1
DO mg/l	0.43	0.32	~~0.27~~ 0.31	0.27	0.27	0.25	0.24	0.24
TURBIDITY (NTU)	60	34	25	19	14	9.4	8.9	7.3
PURGE OR SAMPLE	Purge	Purge	purge	purge	purge	purge	purge	purge
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP	X							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP	X							
VOLATILE ORGANICS UF/HCl	X							
SEMIVOLATILE ORGANICS UF/UP	X							
		Sample Date/Time	10/25/10	0817				
LAB/DATE SUBMITTED	Test America 10/26/10							

EnviroGroup Limited

SAMPLER'S INITIALS ES DATE 10/25/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020
3/8" ID Teflon lined poly tubing

GENERAL								
WELL/LOCATION	SC-07B							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10
TIME	14:17	14:22	14:27	14:32	14:37	14:42	14:47	14:52
SAMPLING CONDITIONS								
SAMPLING METHOD	Grundfos II Pump ON @ 2:17 FLOW = 350 mL/min							
DEPTH OF SAMPLE (BGS / TOC)	~34'							
WELL DEPTH (BGS / TOC)	36.40'							
WATER LEVEL (BGS / TOC)	1.55'							
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04=_____ gallons For 2 inch wells: (TD-WL)x0.16=_____ gallons			For 4 inch wells: (TD-WL)x0.65= 22.7 gallons		185.7 L		
APPEARANCE	clear/slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy
FIELD MEASUREMENTS	1.77'	2.60'	2.82'	2.07'	3.08'	3.09'	3.08	
VOLUME REMOVED (GAL)	1.75 L	1.75 L	1.75 L	1.75 L	1.75 L	1.75 L	1.75 L	0 - 5 L
TOTAL VOLUME REMOVED (GAL)	1.75	3.50 L	5.25	7	8.75 L	10.5 L	12.25 L	17.25 L
TEMPERATURE (°C or °F)	17.02	14.73	14.59	14.92	15.22	15.22	15.22	14.38
CONDUCTIVITY (ATC, 25°C)	0.392	0.402	0.402	0.405	0.412	0.416	0.420	0.430
pH	8.88	8.92	8.80	8.66	8.59	8.47	8.40	8.30
REDOX (mV)	-25.2	-15.2	77.8	115.9	133.1	143.1	149.7	155.0
DO	3.29	0.72	0.80	0.81	0.90	0.97	1.06	1.15
TURBIDITY (NTU)	190	140	110	110	75	85	60	80
PURGE OR SAMPLE	Purge	Purge	purge	Purge	Purge	purge	PURGE	PURGE
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP								
TOTAL METALS UF/HNO_3								
PCBs UF/UP	See P3							
VOLATILE ORGANICS UF/HCl								
SEMIVOLATILE ORGANICS UF/UP								
LAB/DATE SUBMITTED								

EnviroGroup Limited

SAMPLER'S INITIALS MS DATE 10/26/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) _____

GENERAL								
WELL/LOCATION	SC-07B							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10
TIME	14:57	15:02	15:07	15:12	15:17	15:22	15:27	15:32
SAMPLING CONDITIONS								
SAMPLING METHOD	FLOW RATE = 1 L/minute							
DEPTH OF SAMPLE (BGS / TOC)								
WELL DEPTH (BGS / TOC)	See P3							
WATER LEVEL (BGS / TOC)								
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04=_____ gallons							
For 2 inch wells: (TD-WL)x0.16=_____ gallons	For 4 inch wells: (TD-WL)x0.65=_____ gallons							
APPEARANCE	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy
FIELD MEASUREMENTS	3.81'	3.79	3.80	3.97	3.99	4.00'	3.95	3.94
VOLUME REMOVED (GAL)	5 L	5 L	5 L	5 L	5 L	5 L	5 L	5 L
TOTAL VOLUME REMOVED (GAL)	22.25L	27.25L	32.25	37.25	42.25L	47.25	52.25L	57.25L
TEMPERATURE (°C or °F)	14.64	14.82	14.87	14.53	14.57	14.56	14.67	14.49
CONDUCTIVITY (ATC, 25°C)	0.434	0.442	0.446	0.447	0.451	0.453	0.455	0.455
pH	8.30	8.25	8.22	8.15	8.16	8.12	8.12	8.03
REDOX (mV)	157.3	147.1	142.1	135.2	129.9	118.3	102.3	89.2
DO	1.19	1.33	1.43	1.45	1.50	1.57	1.59	1.63
TURBIDITY (NTU)	85	75	80	75	75	70	65	65
PURGE OR SAMPLE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides								
DISSOLVED METALS UF/UP								
TOTAL METALS UF/HNO_3								
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl								
SEMIVOLATILE ORGANICS UF/UP	See P3							
LAB/DATE SUBMITTED								

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SAMPLER'S INITIALS EL DATE 10/26/10

FIELD WATER QUALITY SAMPLING AND ANALYSIS

PROJECT: Panasonic LOCATION: Highland, NY

PROJECT NO. PL-0637 PERSONNEL: E Lovenduski, M. Stiles

INSTRUMENTS: (Conductivity, Temperature, pH, Redox, etc.) YSI 600XL / LaMotte 2020

GENERAL								
WELL/LOCATION	SC-07B							
WATER SOURCE								
DATE	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	10/26/10	
TIME	15:37	15:42	15:47	15:52	15:57	16:02	16:07	
SAMPLING CONDITIONS								
SAMPLING METHOD								
DEPTH OF SAMPLE (BGS / TOC)	See pg 1							
WELL DEPTH (BGS / TOC)								
WATER LEVEL (BGS / TOC)								
ONE WET CASING VOLUME	For 1 inch wells: (TD-WL)x0.04=_____ gallons							
For 2 inch wells: (TD-WL)x0.16=_____ gallons	For 4 inch wells: (TD-WL)x0.65=_____ gallons							
APPEARANCE	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy	slightly cloudy		
FIELD MEASUREMENTS	3.98	4.00	3.94	3.94	3.92	3.91		
VOLUME REMOVED (GAL)	5L	5L	5L	5L	5L	5L		
TOTAL VOLUME REMOVED (GAL)	62.25L	67.25L	72.25L	77.25	82.25L	87.25		
TEMPERATURE (°C or °F)	14.54	14.49	14.65	14.69	14.59	14.48		
CONDUCTIVITY (ATC, 25°C)	0.457	0.456	0.459	0.460	0.460	0.462		
pH	8.06	8.02	8.01	7.99	7.99	7.93		
REDOX (mV)	78.6	68.8	60.0	50.1	45.0	43.1		
DO	1.64	1.61	1.67	1.70	1.73	1.75		
TURBIDITY (NTU)	50	45	37	35	32	26		
PURGE OR SAMPLE	PURGE	PURGE	PURGE	PURGE	PURGE	PURGE		
SAMPLES COLLECTED AND SAMPLE ANALYSIS								
Pesticides'	X + MS/MSD							
DISSOLVED METALS UF/UP	X + MS/MSD							
TOTAL METALS UF/HNO_3	X							
PCBs UF/UP								
VOLATILE ORGANICS UF/HCl	X + MS/MSD							
SEMIVOLATILE ORGANICS UF/UP	X + MS/MSD							
	sampled on 10/26/10 1607							
LAB/DATE SUBMITTED	Test America 10/27/10							

Collected sample b/c property owner was going to cut power @ 1630.

EnviroGroup Limited

SAMPLER'S INITIALS EJL DATE 10/26/10