INTERIM DATA SUMMARY AND SAMPLING AND ANALYSIS PLAN ADDENDUM POLYCHLORINATED BIPHENYLS INVESTIGATION NWIRP BETHPAGE NY

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TETRA TECH

INTERIM DATA SUMMARY REPORT AND SAP ADDENDUM

PCB INVESTIGATION AT SITE 1 - FORMER DRUM MARSHALLING AREA

Naval Weapons Industrial Reserve Plant
Bethpage, New York

Naval Facilities Engineering Command
Mid-Atlantic

CONTRACT NUMBER N62470-08-D-1001
Contract Task Order WE44

July 2011

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AND SAP ADDENDUM

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FORMER DRUM MARSHALLING AREA

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
BETHPAGE, NEW YORK

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ACRONYMS

AOC	Area of Concern
bgs	below ground surface
CLEAN	Comprehensive Long-Term Environmental Action Navy
CTO	Contract Task Order
CY	cubic yards
DRO	Diesel range organics
ER	Environmental Restoration
ft/day	feet per day
GOCO	Government-owned contractor-operated
gpm	gallons per minute
GRO	Gasoline range organics
HNUS	Halliburton NUS
IDW	Investigation-derived waste
MCL	Maximum Contaminant Level
mg/kg	milligrams per kilogram
MS/MSD	matrix spike/matrix spike duplicate
NAVFAC	Naval Facilities Engineering Command Mid-Atlantic
NGC	Northrop Grumman Corporation
NWIRP	Naval Weapons Industrial Reserve Plant
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ORP	Oxygen Reduction Potential
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene
PID	Photoionization detector
PVC	Polyvinyl chloride
QA	Quality Assurance
RCRA	Resource Conservation and Recovery Act
SAP	Sampling and Analysis Plan
TPH	Total petroleum hydrocarbons
Tetra Tech	Tetra Tech NUS, Inc.
VOC	Volatile organic compound
µg/L	microgram per liter

1.0 INTRODUCTION

This Interim Data Summary Report was prepared by Tetra Tech NUS Inc. (Tetra Tech) for the Naval Facilities Engineering Command (NAVFAC) - Mid-Atlantic under the U.S. Navy's Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract number N62470-08-D-1001, Contract Task Order (CTO) WE44. The Interim Data Summary Report presents the field activities at Site 1 – Former Drum Marshalling Area conducted from July 2010 through March 2011 at the Naval Weapons Industrial Reserve Plant (NWIRP) located in Bethpage, New York (Figures 1-1 and 1-2). The field activities consisted of the following: soil borings, soil sampling, groundwater grab sampling, and monitoring well installation, development, and groundwater sampling, as presented in the Sampling and Analysis Plan (SAP) (Tetra Tech, 2010a). Groundwater investigation activities were conducted in accordance with the Navy Environmental Restoration (ER) Program and New York State Department of Environmental Conservation (NYSDEC) Resource Conservation and Recovery Act (RCRA) permit number NYD003995198.

1.1 SCOPE AND OBJECTIVES

This document summarizes soil and groundwater investigation activities conducted at the NWIRP Bethpage Site 1 – Former Drum Marshalling Area between July 2010 and March 2011. The primary objectives of the investigation were to delineate the vertical extent (greater than 25 feet below ground surface [bgs]) of polychlorinated biphenyls (PCB) contamination in soil, determine whether PCB contaminated groundwater has migrated beyond the Site boundary, and whether organics (fuel-related or chlorinated solvents) are present at sufficient concentrations to act as a carrier fluid that could promote PCB migration.

Soil data collected during historical investigations delineated the horizontal and vertical extent of PCB-contaminated soils fairly well from the ground surface to 25 feet bgs. Based on the historical data, the known vertical extent of PCB-contaminated soil is to depths of approximately 65 feet bgs. However, the vertical extent was not clearly defined. Soil borings were advanced in known deep areas of contamination during this investigation to determine and/or confirm the depth of PCB-contaminated soils.

The existing groundwater monitoring well network at Site 1 was limited to four monitoring wells along the southern boundary of Site 1. Sampling of these monitoring wells indicated concentrations of PCBs near or above maximum contaminant levels (MCLs). Shallow, intermediate, and deeper monitoring wells were installed upgradient and downgradient of Site 1 to better characterize groundwater and determine if PCBs have mobilized and actually impacted groundwater, and if so, to delineate the extent of contamination.

A description of field activities is presented in Section 3.0 of this report. Field work conducted in 2010 and 2011 is summarized as follows.

- Advanced nine soil borings in known source areas
- Collected soil samples for field and laboratory analysis of PCBs
- Groundwater grab sampling at three downgradient soil boring locations
- Installation and development of fifteen monitoring wells
- Two rounds of monitoring well sampling

1.2 REPORT ORGANIZATION

This Interim Data Summary Report provides general implementation information and the approach used in conducting the soil and groundwater investigation activities in 2010 and early 2011. The report consists of five sections. Section 1.0 provides an introduction. Section 2.0 provides the facility background and environmental setting. Section 3.0 provides a summary of the field activities. Section 4.0 presents the analytical results, and Section 5.0 presents the conclusion and recommendations.

2.0 BACKGROUND

2.1 SITE DESCRIPTION

The Navy's Bethpage facility is located in east-central Nassau County, Long Island, New York, approximately 30 miles east of New York City (Figure 1-1). Established in 1941, the property known as NWIRP Bethpage was originally situated on 109 acres entirely within the Northrop Grumman Aerospace complex. NWIRP Bethpage was a Government-Owned Contractor Operated (GOCO) facility that was operated by the Northrop Grumman Corporation (NGC) until September 1998. As a result of Northrop Grumman's decision to terminate operations at NWIRP Bethpage, the Navy transferred 96 acres of the 105-acre main parcel to Nassau County. The remaining 9-acre parcel is being retained by the Navy for environmental investigations and remediation. Other than environmental investigation and cleanup work, there are no operations conducted on the Navy's 9 acres that generate hazardous waste.

Site 1 - Former Drum Marshalling Area is located in the eastern portion of the Navy's 9-acre parcel. Site 1 is mostly an open area, which in the past included above ground storage tanks (ASTs) (Areas of Concern [AOC] 23), a sanitary settling tank, and sludge drying beds (AOC 35). All these structures were located in the northern portion of the Site, as well as a few scattered metal storage buildings. In general this area is relatively flat except for a 4-foot vegetated windrow located along the eastern end of the Site, and a mounded area which partially buries the abandoned sanitary settling tank. The Site is enclosed by a site perimeter fence along the north, west and south, with an eastern facility perimeter fence bounding the Site from a residential neighborhood. Figure 2-1 provides a site layout and aerial view of Site 1.

Site 1 originally consisted of two former drum marshalling pads located in the center of the site that were used to store drums containing waste materials from operations at Plant No. 3 and potentially other wastes from operations at the facility. Transformers and PCB-filled autoclaves were also stored at the Site.

In addition, underlying most of Site 1 is approximately 120 abandoned cesspools that were designed to discharge sanitary waste waters from Plant No. 3. These cesspools were approximately 10 feet in diameter and 16 feet deep. Based on field observations, the cesspools are currently filled with soil. It is possible that non-sanitary wastes may have been discharged into this system. The drum marshalling areas and extent of the leach field were the original extent of Site 1.

2.2 ENVIRONMENTAL SETTING

2.2.1 Topography and Drainage

NWIRP Bethpage is located in an area underlain by permeable glacial material and characterized by limited surface water drainage features. Normal precipitation at the facility is expected to infiltrate rapidly into the soil. Recharge basins which receive storm water runoff are located in the northeastern portion of the facility at Site 2. NWIRP Bethpage occupies a relatively flat, intermorainal area, and has very little topographic relief.

2.2.2 Geology and Soils

NWIRP Bethpage is underlain by approximately 1,100 feet of unconsolidated sediments that overlie crystalline bedrock (Isbister, 1966). The unconsolidated sediments consist of four distinct geologic units: (in descending order) Upper Glacial Formation, Magothy Formation, Raritan Clay, and Lloyd Sand Formation. The 30- to 45-foot-thick Upper Glacial Formation consists chiefly of coarse sands and gravels. The Upper Magothy Formation consists primarily of coarse sands to a depth of approximately 100 feet, below which finer sands, silts, and clay predominate. The clay is common but laterally discontinuous; no individual clay horizon of regional extent underlies the facility. The 100- to 150-foot-thick Raritan Clay underlies the Magothy Formation at a depth of approximately 700 to 800 feet bgs. The underlying Lloyd Sand Formation is approximately 300 feet thick.

2.2.3 Hydrogeology

Most of Long Island is bisected by an east-west-trending regional groundwater divide. NWIRP Bethpage occupies an area of recharge, lying to the south of the divide. Groundwater is in contact with the Upper Glacial and Upper Magothy Formations beneath the facility, and may be considered a common unconfined aquifer. The glacial deposits are characterized by a high primary porosity (exceeding 30 percent) and high permeability. The high permeability of the glacial deposits allows for the rapid recharge of precipitation to the underlying Magothy (Isbister, 1966; McClymonds and Franke, 1972). The number and thickness of clay lenses increase with depth in the Magothy Formation; however, the horizontally discontinuous nature of these units prevents any one of them from functioning as an aquitard or semi-confining unit.

Groundwater beneath the site flows in a general southerly direction toward the Atlantic Ocean. Across the facility, the horizontal hydraulic gradient and groundwater velocity in the unconfined common aquifer averages 5.3 feet per mile and 0.3 foot per day (ft/day), respectively [Halliburton NUS (HNUS), 1993].

Subtle vertical hydraulic gradients occur in a downward direction. Groundwater in the deeper portion of the Magothy is the primary source of potable water in Nassau County. Groundwater is encountered at a depth of approximately 50 feet bgs at the facility. Historically, because of pumping and recharge at the facility, groundwater depths have been measured ranging from 40 to 60 feet bgs.

Prior to 1998, the groundwater flow dynamics beneath the NWIRP and Grumman were complex. A total of 16 deep production wells (7 on the NWIRP and 9 on Grumman property) existed which were set in the Magothy and each yielded approximately 1,200 gallons per minute (gpm). All of the production wells on the Navy's property have been abandoned. The extracted water was mostly used for non-contact single pass cooling and then discharged into recharge basins located on Navy and Northrop Grumman property. Based on extraction and recharge rates and locations, groundwater on the Navy property flowed predominately west and southwest. In addition, the production wells extracted groundwater from depths of approximately 500 feet bgs and the water was recharged in the basins near grade. The extraction from the production wells and near surface recharge resulted in vertical gradients at the Site. Grumman continues to operate production wells (as well as a groundwater containment system) south of NWIRP Bethpage. The production wells and groundwater containment system operates with a combined flow rate of approximately 3,800 gpm.

The Magothy aquifer is highly conductive. For example, in the 1995 FS investigation's pumping test no. 2, the pumping of production well PW-11 located on the Navy's property at nearly 1,000 gpm for 72 hours produced little or no measurable drawdown in the nearby observation wells or other production wells.

3.0 FIELD INVESTIGATION

3.1 FIELD AND SAMPLING ACTIVITIES

The PCB field investigation was conducted to determine the following (as presented in the [Uniform Federal Policy] UFP SAP, Tetra Tech, 2010):

- The vertical extent (greater than 25 feet bgs) of PCB contamination in soil
- Whether PCB-contaminated groundwater has migrated beyond the Site boundary
- Whether organics (fuel-related or chlorinated solvents) are present at sufficient concentrations to act as a carrier fluid that could promote PCB migration

The field and sampling activities included the advancement of soil borings to collect soil and groundwater samples, permanent monitoring well installation, monitoring well development, sampling of new and existing monitoring wells, and surveying. These activities were conducted to meet the project objectives presented above, further evaluate the impact of PCB-contamination at the Site, and determine a path forward for further investigation and potential remediation.

The following subsections summarize the field investigation activities and identify the sampling locations and type of samples that were collected during the investigation.

3.1.1 Soil Borings and Soil Sampling

In July and August 2010, nine soil borings were advanced using rotosonic drilling methods. The soil boring locations are presented on Figure 3-1 and the boring logs are presented in Appendix A. Continuous soil cores were obtained to an approximate depth of 250 feet bgs at each boring location. A 4-inch core barrel was advanced into undisturbed soil, thus filling the core barrel with a representative soil sample. From the ground surface to approximately 60 feet bgs, 4-inch cores were collected in 10 foot intervals, and below 60 feet bgs, cores were collected in 20 foot intervals. After each 4-inch core barrel was advanced, a 6-inch casing was driven over the 4-inch core to depth to maintain the open borehole while retrieving the 4-inch soil cores. An 8-inch override casing was advanced over both the 4- and 6-inch casings for the first 70 feet bgs at boring locations advanced in known source areas to minimize dragging of shallow soil contamination downwards and eliminate cross contaminating deeper soil samples. To recover the soil cores, the 4-inch core barrel was withdrawn and vibrated to release the soil cores into 10 or 20 foot plastic sample bags. Each sample bag was placed on a plastic liner, screened with a photoionization detector (PID), logged (lithology, visual staining, or odors), and soil samples were collected for field test kit and fixed based laboratory analysis.

Subsurface soil samples were analyzed on-site for total chloride (converted to Arochlor-1248 equivalents) with the Dexsil L2000DX Analyzer. This method assumes that all chloride present is associated with PCBs. Discrete soil samples were collected every 5 feet starting at 25 feet bgs in the source area soil borings for field test kit analysis, particularly at zones with elevated PID readings, above confining layers, or in visually stained layers. Below 120 feet, field test kit composite samples were collected every 10 feet. Each composite sample was homogenized in a disposable aluminum pan with a disposable plastic trowel. Composite samples were also collected at soil borings advanced outside of the known source areas. From the ground surface down to 120 feet bgs, 10-foot composite samples collected for test kit analysis. Below 120 feet composite samples were taken in 10- to 30-foot intervals depending on the shallower test kit results from that location. Table 3-1 presents a summary of the field test kit samples collected and the soil sample log sheets are presented in Appendix A.

Lab confirmation samples for PCB analyses were selected based upon the field test kits results and elevated PID readings. Lab confirmation samples were co-located with the field test kit samples and placed on ice for preservation. For the source area soil borings, six laboratory confirmation samples were collected from each boring. Two of the six confirmation samples were collected from sample intervals with the highest test kit results. Two additional confirmation samples were taken from intervals just above clay units or within stained layers, and the remaining two samples were taken from suspected clean intervals. Four soil samples were also collected from each source area boring and analyzed for volatile organic compounds (VOCs), total organic carbon (TOC), total petroleum hydrocarbon (TPH)-diesel range organics (DRO) and TPH- gasoline range organics (GRO). These samples were co-located with the PCB samples. One sample was taken directly above the water table, while the remaining three were taken where elevated PID readings were observed or just above clay layers. The downgradient soil borings, followed the same sample procedures except only three VOC, TOC, TPH-DRO, and TPH-GRO samples were collected from these borings. Table 3-2 provides a summary of the laboratory confirmation samples.

Soil cuttings generated during the investigation were collected and placed in 10 to 20 cubic yard roll-off containers. If PCB field test kits indicated potentially elevated PCBs, those associated soils were placed in 55-gallon drums for further waste characterization sampling. After waste characterization, the soils were transported and disposed off-site at an approved disposal facility by the Investigation Derived Waste (IDW) subcontractor.

3.1.2 Groundwater Grab Sampling

Groundwater grab samples were collected from downgradient boring locations BPS1-SB3010 and SB3012. Four groundwater grab samples were collected from each boring location at varying depths as determined or projected from analytical and lithological data collected from the source area borings Table

3-3 presents a summary of groundwater grab samples collected. Groundwater grab samples were collected utilizing a stainless steel screen sampler (Power Probe) and submersible pump (Grundfos RediFlo). The Power Probe attached to the 4-inch core barrel and was self contained and sealed. During advancement, the probe was pushed at least 5 feet below the 6-inch casing into the interval where groundwater was to be sampled. An ecologically safe biodegradable dye (Rhodamine WT) was added to the drilling water in order to visually determine if drilling fluid was encountered during purging and sampling. Before exposing the screen, a water level meter was used to determine if water existed inside the 4-inch core barrel. The 6-inch casing was withdrawn approximately 5 feet to expose the Power Probe screen and the Grundfos pump was then placed just above the 4 foot probe screen for purging groundwater.

Purging varied at each location and was dependent on the amount of drilling fluid observed in the purge water and turbidity readings. Groundwater grab samples were sent to a fixed based lab and analyzed for PCBs and VOCs. Field forms associated with the groundwater grab samples can be found in Appendix A.

3.1.3 Monitoring Well Installation

Four monitoring well clusters were installed via rotosonic drilling methods in October and November 2010. One monitoring well cluster (BPS1-TT-MW301S, I, D) was installed in the hydraulically upgradient (north) portion of the study area and three monitoring well clusters (BPS1-TT-MW302, -MW303, and -MW304) were installed hydraulically downgradient (south) of Site 1. Each downgradient well cluster consisted of four monitoring wells at shallow, intermediate (2), and deeper zones (S, I1, I2, and D) as determined by the lithology observed in the source area and the downgradient soil borings. The monitoring well locations are presented on Figure 3-1 and the construction details are provided in Table 3-4.

The monitoring wells were installed by advancing the 6-inch rotosonic casing to the target depths and constructed with 2-inch schedule 40 polyvinyl chloride (PVC) screen (0.010 inch slot) and riser pipe. The sand pack consisted of #1 Silica sand and was placed from 1 foot below to 3 feet above the screened interval. A 5-foot bentonite seal consisting of 3/8 inch bentonite chips was placed above the sand pack and allowed to hydrate prior to grouting. Bentonite/cement grout slurry was then placed via tremie pipe to the ground surface. Steel protective stick up casings were installed at the BPS1-TT-MW301 and BPS1-TT-MW304 well clusters and flush mount well covers were installed at BPS1-TT-MW302 and BPS1-TT-MW303.

Well development was conducted using two different methods. Airlifting and a submersible pump (Grundfos) were used at the intermediate depths and deep monitoring wells, and surging/purging with a

submersible pump (Grundfos) was used at the shallow well locations. Well development began after the grout had cured at each monitoring well. During well development, groundwater parameters were measured every 15 minutes and included: pH, specific conductivity, temperature, turbidity, and oxygen reduction potential (ORP). Parameter stabilization was achieved and approximately 400 gallons of water was purged from each shallow monitoring well and about 1,000 gallons was purged at each intermediate/deep monitoring well. Monitoring well construction and development records are presented in Appendix A.

3.1.4 Groundwater Flow and Sampling

For both groundwater sampling events a round of synoptic groundwater elevations was taken from each monitoring well. These measurements were used to generate groundwater elevation contour maps and provide information on groundwater flow patterns and gradients (see Appendix A for Groundwater Level Measurement Sheets). The first round of water levels was taken on November 29, 2010 and the second occurred on March 3, 2011. Figure 3-2 presents the potentiometic surface for shallow monitoring wells and Figure 3-3 presents the potentiometric surface for deep monitoring wells as recorded in March 2011. The potentiometric surface for the intermediate well locations indicated a similar groundwater flow pattern as shown in the shallow and deep wells. Based on the groundwater levels, a slight downward vertical gradient is observed between shallow and deep monitoring wells and a south to southeast groundwater flow is apparent at the Site. Water level measurements were recorded to the nearest 0.01 foot and referenced to the top of casing of each monitoring well. Table 3-5 provides a summary of the groundwater elevations at the Site.

Groundwater sampling was conducted from November 29 through December 1, 2010 and March 1 through March 3, 2011. A Grundfos Rediflo pump was used for groundwater purging and sample collection activities. Water quality parameters and turbidity measurements were collected at each monitoring well during purging and sampling. All groundwater samples were collected using low flow sampling techniques and the samples were sent to a fixed based lab for VOC and PCB analysis. Groundwater sample log sheets and low flow purge data sheets are presented in Appendix A.

Quality Assurance (QA) samples were taken during groundwater sampling and included rinsate blanks, source water blanks, field duplicates, matrix spike matrix duplicated (MSMSD), and trip blanks. QA sample log sheets are presented in Appendix A.

Water generated during the groundwater grab sampling, well development, monitoring well sampling and during decontamination procedures were containerized and stored for waste characterization sampling.

3.1.5 Surveying

The monitoring well and soil boring locations were surveyed by BANC3, a New York State licensed surveyor, on March 29, 2011. Each location was surveyed for horizontal position and vertical components including both ground surface and top of casing elevations for each monitoring well location. Horizontal measurements were accurate to 0.1 foot while vertical elevation measurements were accurate to 0.01 foot at each location. A summary of the survey results can be found in Appendix B.

4.0 GEOLOGY, ANALYTICAL RESULTS, AND FINDINGS

4.1 INTRODUCTION

Analytical results for this PCB field investigation consist of onsite field test kit for soils and fixed-based laboratory results for soil and groundwater. Results from the field test kits were used as screening level data to determine where fixed-based laboratory samples would be collected. The following subsections describe the analytical results and findings from this PCB investigation.

4.2 GEOLOGY

The geology encountered at the site was variable both horizontally and vertically. Medium to course sand and gravel was consistently observed in the upper 30 feet of each source area boring. Below this unit a few clay and potential lignite layers were observed from a few inches up to approximately 10 feet thick. Finely laminated silt and clay layers and mottled sand layers were encountered, but these layers were not consistent and could not be traced from boring to boring. The few notable clay units were observed during drilling at BPS1-SB3007 and BPS1-SB3012 around 150 feet bgs and another clay unit that was observed at BPS1-SB3010 and BPS1-SB3012 around 225 feet bgs. The thickness of the deeper clay unit was not fully defined since soil borings were not advanced deeper. This deeper clay unit was fairly consistent across the study area and thought to confine the potential PCB-contaminated groundwater.

A cross section location map (Figure 4-1) presents the cross sections generated for the investigation. Figure 4-2 presents Cross Section A to A' which runs north and south through the study area, while Figure 4-3 present Cross Section B to B' which runs east-west through the three downgradient soil borings and monitoring well locations.

Based on the lithology encountered in these soil borings and the borings advanced in 2009, monitoring wells were installed at depths just above potential semi-confining units observed during drilling. Table 3-4 presents the construction details for each on the monitoring wells installed during this investigation.

4.3 SOIL SAMPLING RESULTS

4.3.1 Field Test Kit Results

Field test kit samples were used to screen sample intervals for PCBs (measured as total chloride) to determine which samples to send for fixed-based laboratory analysis. Table 4-1 presents a summary of detections from the field test kits and the associated fixed-based laboratory results for comparison. The test kit results showed relatively good correlation with the laboratory data. Some false positives and

negatives were observed in the data comparison. The test kit results typically overestimated the PCB concentrations. The analytical results from this investigation will be used in conjunction with historical analytical results to determine were further PCB delineation is needed in the source areas. Further evaluation of the new and historical soil data will be presented under a separate cover and used to plan additional soil investigative activities at the site.

Appendix C provides the results from the field test kits.

4.3.2 Laboratory Results

PCBs were detected in 6 of the 9 soil borings with BPS1-SB3005, BPS1-SB3006, and BPS1-SB3009 showing the highest PCB concentrations (See Table 4-2). BPS1-SB3005 had detections of Aroclor-1242 (maximum of 160 milligram per kilogram [mg/kg]), Arcoclor-1248 (max. of 0.016 mg/kg), and Aroclor-1260 (max 0.8 mg/kg). The highest detection of Aroclor-1242 was found from 54.5 to 55.0 and 57.5 to 58.0 feet bgs (160 and 110 mg/kg respectively). BPS1-SB3006 had two detections of Aroclor-1248 at 32.5 (15 mg/kg) and 53.5 feet bgs (0.022 mg/kg). BPS1-SB3009, associated with Dry well 34-07 and had a maximum concentration of 10 mg/kg Aroclor-1248 at 36.0-36.5 feet bgs and was also detected as deep as 51.5 feet bgs at 0.27 mg/kg. PCB detections were also observed in BPS1-SB3008 (Aroclor-1248, 0.23 mg/kg at 52.5 feet bgs), BPS1-SB3010 (from 0 to 8 feet bgs, Aroclor-1242 at 0.023 mg/kg and Aroclor-1260 at 0.01 mg/kg), and a deep detection in BPS1-SB3012 of Aroclor-1242, 0.019 mg/kg at 203.5 feet bgs. Figure 4-4 presents a summary of the PCB detections observed in site soils during the investigation.

Detections of DROs were observed in some of the soil samples collected for laboratory analysis (see Table 4-2). BPS1-SB3008 had detections of DRO at 4 of the sample depths ranging from 4.6 to 13 mg/kg from 25 to 235 feet bgs. BPS1-SB3009 had detections of DRO at 4 of the sample depths ranging from 2.9 to 11 mg/kg from 25 to 209.5 feet bgs. BPS1-SB3011 had a DRO detection of 6.8 mg/kg at 49 feet bgs.

Appendix D and E provide the chain of custody forms, analytical results, and validation summaries of the soil samples sent for fixed based lab analysis.

4.4 GROUNDWATER SAMPLING RESULTS

4.4.1 Groundwater Grab Sampling Results

Groundwater grab samples were collected at two of the downgradient soil boring locations and analyzed for VOCs and PCBs. Table 4-3 provides a summary of the groundwater grab detections at BPS1-

SB3010 and BPS1-SB3012 along with the results from the associated monitoring wells installed at these locations. Aroclor-1242 was detected in all four groundwater grab sample intervals at BPS1-SB3010, with a maximum concentration of 0.42 µg/L at 114 to 118 feet bgs. Aroclor-1242 was only detected in one of the four groundwater grab samples in BPS1-SB3012 at 0.24 µg/L from 144 to 148 feet bgs. One groundwater grab sample (BPS1-GW3012, from 144 to 148 feet bgs) indicated VOC concentrations of benzene (0.19 µg/L), cis-1,2-dichloroethene (0.61 µg/L), tetrachloroethene (PCE) (0.91 µg/L), toluene (0.25 µg/L), and trichloroethene (TCE) (1.4 µg/L).

Based on the low concentrations of PCBs observed in these groundwater grab samples, monitoring wells were installed at these downgradient locations to assess the potential PCB migration from the source areas. However, based on a comparison of the groundwater grab and subsequent monitoring well results, the groundwater grab samples under-estimated the PCBs in groundwater (Table 4-3).

4.4.2 Monitoring Well Sampling Results

Nineteen monitoring wells were sampled for VOCs and PCBs during the two sampling events conducted in 2010 and March 2011. Based on detections of chromium and hexavalent chromium observed in IDW samples collected after the sampling event in 2010, select monitoring wells were also sampled for total metals and hexavalent chromium during the March 2011 event.

Aroclor-1242 was detected by the laboratory in all of the groundwater samples except for BPS1-MW304S and the field quality control blanks. The laboratory indicated that a conclusive PCB Aroclor identification was not possible due to the interference and/or weathering of the samples. Validation of the laboratory results indicated that both Aroclor-1242 and Aroclor-1248 have several common peaks and similar patterns in their standard chromatograms. Because of these similarities, it was too difficult to determine the predominant Aroclor or how to precisely quantify each Aroclor separately. Therefore the laboratory reported a single Aroclor mixture, Aroclor-1242. A “weathering effect” or degradation of compounds within the specific mixtures is also a likely factor in precisely identifying the Aroclor mixture present. Despite these complexities, validation concluded that an Aroclor mixture is present in the affected samples and due to the similarities between Aroclor-1242 and Aroclor-1248, the detected results (as Aroclor-1242) were qualified as estimated.

Of the 38 groundwater samples collected during both rounds of sampling, 32 samples indicated concentrations of Aroclor-1242 that exceeded the Federal and New York State Department of Health (NYSDOH) MCL of 0.5 micrograms per liter (µg/L). Aroclor-1242 was detected at concentrations ranging from 0.052 to 14 µg/L. See Table 4-4 and Figures 4-5, 4-6, and 4-7 for further details regarding the detections and distribution of Aroclor-1242.

A total of twelve VOCs were detected in groundwater during the two sampling events, with five of those VOCs (1,1,1-trichloroethane, 1,1-dichloroethane, cis-1,2-dichloroethene, PCE, and TCE) exceeding the NYSDOH MCL of 5 µg/L. 1,1,1-trichloroethane was detected in two of the monitoring wells at concentrations ranging from 6.1 to 23 µg/L during both sampling events. 1,1-dichloroethane was detected at BPS1-TT-MW304I1 (6.9 µg/L) during the 2010 sample event. Cis-1,2-dichloroethene was detected at concentrations ranging from 8.8 µg/L to 110 µg/L. Concentrations of PCE ranged from 17 to 550 µg/L with the highest detection found in BPS1-FW-MW01 during the March 2011 sampling event. PCE was also detected above MCLs in BPS1-FW-MW02, BPS1-FW-MW03, BPS1-TT-MW303I1, BPS1-TT-MW304I1, and at BPS1-TT-MW304I2. TCE was also exceeded the MCL at BPS1-FW-MW01 (41 µg/L) and concentrations ranging from 5.4 to 27 µg/L in BPS1-TT-MW303I1 and BPS1-TT304I2.

Total metals and hexavalent chromium samples were collected from eight of the monitoring well locations during the March 2011 sampling event. Hexavalent chromium and total chromium were observed at elevated concentrations. Hexavalent chromium was detected at BPS1-HN-MW29I (1.1 µg/L), BPS1-TT-MW-301I (4.5 µg/L), BPS1-TT-MW304I1 (58 µg/L), and BPS1-TT-MW304I2 (166 µg/L). Total chromium exceeded the MCL of 100 µg/L at BPS1-TT-MW304I2 (180 µg/L) and was detected all 8 groundwater samples. Total cadmium was detected in 5 of the groundwater samples below the MCL with a maximum concentration of 2.7 µg/L at BPS1-TT-MW301I1.

Table 4-4 provides an analytical summary of detected compounds observed in the groundwater samples collected at Site 1. Figures 4-5, 4-6, and 4-7 present the analytical detections for the shallow, intermediate, and deep monitoring wells respectively.

Appendix D and E provide the chain of custody forms, analytical results, and validation summaries of the groundwater samples sent for fixed based lab analysis.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions based on the PCB investigation activities are as follows:

1. Based on the analytical results for soil, the vertical extent of PCB-contaminated soil (concentrations > 10 mg/kg) in the source area is approximately 65 feet bgs.

2. The low concentrations of VOCs, TPH-DRO, and TPH-GRO detected in site soils and groundwater during this investigation are not sufficient to confirm whether fuel or solvents have acted as a carrier fluid that could promote PCB migration.

3. Potentiometric surface mapping of groundwater in the study area indicated groundwater flow is south to southeast.

4. Detections of PCBs in the groundwater samples collected in BPS1-MW301s, MW301I, and MW301D indicate a potential source of PCB-contaminated groundwater north of Site 1.

5. Detections of PCBs in all of the downgradient monitoring wells, except BPS1-MW304S, indicate that PCBs have migrated past the Site 1 boundary.

6. The vertical and horizontal extent of PCB-contaminated groundwater has not been defined.

7. Total chromium and hexavalent chromium were detected at elevated concentrations in groundwater.

8. A good correlation was observed between the PCB test kit results and the laboratory confirmation samples for soil.

9. A poor correlation was observed between groundwater grab results and the associated monitoring well samples.

Recommendations are as follows:

1. Further evaluate current and historical analytical data for soil to determine where additional PCB delineation is needed in the source areas.

2. Investigate potential upgradient sources of PCB groundwater contamination.

3. Determine the extent of PCB-contaminated groundwater downgradient of Site 1.

4. Further investigate the occurrence of chromium and hexavalent chromium in groundwater.

REFERENCES

Halliburton NUS (HNUS), 1993. Phase 2 Remedial Investigation Report for Naval Weapons Industrial Reserve Plant Bethpage, NY. Volume 1. October.

Isbister, J., 1966. Geology and Hydrology of Northeastern Nassau County, Long Island, New York. Water Supply Paper 1925, U.S. Geological Survey.

McClymonds, IN., and 0. Franke, 1972. Water Transmitting Properties of Aquifers on Long Island, New York. U.S. Geological Survey Professional Paper 627-E.

Tetra Tech NUS, Inc. (Tetra Tech), 2010. Final Sampling and Analysis Plan PCB Investigation Site 1-Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant, Bethpage, New York, May.

TABLES

TABLE 3-1
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sampled Interval (feet bgs)	Collection Method	Analysis
BPS1-SB3004-27.528.0	27.5-28.0	Discrete	PCB
BPS1-SB3004-34.034.5	34.0-34.5	Discrete	PCB
BPS1-SB3004-37.037.5	37.0-37.5	Discrete	PCB
BPS1-SB3004-42.042.5	42.0-42.5	Discrete	PCB
BPS1-SB3004-47.047.5	47.0-47.5	Discrete	PCB
BPS1-SB3004-49.049.5	49.0-49.5	Discrete	PCB
BPS1-SB3004-54.054.5	54.0-54.5	Discrete	PCB
BPS1-SB3004-61.061.5	61.0-61.5	Discrete	PCB
BPS1-SB3004-64.565.0	64.5-65.0	Discrete	PCB
BPS1-SB3004-68.068.5	68.0-68.5	Discrete	PCB
BPS1-SB3004-71.071.5	71.0-71.5	Discrete	PCB
BPS1-SB3004-77.578.0	77.5-78.0	Discrete	PCB
BPS1-SB3004-82.082.5	82.0-82.5	Discrete	PCB
BPS1-SB3004-86.086.5	86.0-86.5	Discrete	PCB
BPS1-SB3004-91.091.5	91.0-91.5	Discrete	PCB
BPS1-SB3004-97.097.5	97.0-97.5	Discrete	PCB
BPS1-SB3004-101.0101.5	101.0-101.5	Discrete	PCB
BPS1-SB3004-106.0106.5	106.0-106.5	Discrete	PCB
BPS1-SB3004-111.0111.5	111.0-111.5	Discrete	PCB
BPS1-SB3004-116.0116.5	116.0-116.5	Discrete	PCB
BPS1-SB3004-120130	120-130	Composite	PCB
BPS1-SB3004-130140	130-140	Composite	PCB
BPS1-SB3004-154.0154.5	154.0-154.5	Discrete	PCB
BPS1-SB3004-150160	150-160	Composite	PCB
BPS1-SB3004-160170	160-170	Composite	PCB
BPS1-SB3004-170180	170-180	Composite	PCB
BPS1-SB3004-180190	180-190	Composite	PCB
BPS1-SB3004-190198	190-198	Composite	PCB
BPS1-SB3004-200210	200-210	Composite	PCB
BPS1-SB3004-210220	210-220	Composite	PCB
BPS1-SB3004-220230	220-230	Composite	PCB
BPS1-SB3004-235.0235.5	235.0-235.5	Discrete	PCB
BPS1-SB3004-230240	230-240	Composite	PCB
BPS1-SB3004-240250	240-250	Composite	PCB
BPS1-SB3005-008	0-8	Composite	PCB
BPS1-SB3005-27.528.0	27.5-28.0	Discrete	PCB
BPS1-SB3005-34.034.5	34.0-34.5	Discrete	PCB
BPS1-SB3005-37.538.0	37.5-38.0	Discrete	PCB
BPS1-SB3005-43.043.5	43.0-43.5	Discrete	PCB
BPS1-SB3005-49.049.5	49.0-49.5	Discrete	PCB
BPS1-SB3005-54.555.0	54.5-55.0	Discrete	PCB
BPS1-SB3005-57.558.0	57.5-58.0	Discrete	PCB
BPS1-SB3005-61.061.5	61.0-61.5	Discrete	PCB
BPS1-SB3005-66.066.5	66.0-66.5	Discrete	PCB
BPS1-SB3005-72.072.5	72.0-72.5	Discrete	PCB
BPS1-SB3005-77.578.0	77.5-78.0	Discrete	PCB
BPS1-SB3005-81.081.5	81.0-81.5	Discrete	PCB
BPS1-SB3005-86.086.5	86.0-86.5	Discrete	PCB
BPS1-SB3005-94.595.0	94.5-95.0	Discrete	PCB
BPS1-SB3005-97.598.0	97.5-98.0	Discrete	PCB
BPS1-SB3005-102.0102.5	102.0-102.5	Discrete	PCB
BPS1-SB3005-105.5106.0	105.5-106.0	Discrete	PCB

TABLE 3-1
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sampled Interval (feet bgs)	Collection Method	Analysis
BPS1-SB3005-111.0111.5	111.0-111.5	Discrete	PCB
BPS1-SB3005-117.0117.5	117.0-117.5	Discrete	PCB
BPS1-SB3005-120130	120-130	Composite	PCB
BPS1-SB3005-130138	130-138	Composite	PCB
BPS1-SB3005-145.0145.5	145.0-145.5	Discrete	PCB
BPS1-SB3005-140150	140-150	Composite	PCB
BPS1-SB3005-150160	150-160	Composite	PCB
BPS1-SB3005-160170	160-170	Composite	PCB
BPS1-SB3005-170180	170-180	Composite	PCB
BPS1-SB3005-180190	180-190	Composite	PCB
BPS1-SB3005-190200	190-200	Composite	PCB
BPS1-SB3005-200210	200-210	Composite	PCB
BPS1-SB3005-210220	210-220	Composite	PCB
BPS1-SB3005-220230	220-230	Composite	PCB
BPS1-SB3005-232.5233.0	232.5-233.0	Discrete	PCB
BPS1-SB3005-230240	230-240	Composite	PCB
BPS1-SB3005-240250	240-250	Composite	PCB
BPS1-SB3006-27.027.5	27.0-27.5	Discrete	PCB
BPS1-SB3006-32.032.5	32.0-32.5	Discrete	PCB
BPS1-SB3006-36.537.0	36.5-37.0	Discrete	PCB
BPS1-SB3006-42.042.5	42.0-42.5	Discrete	PCB
BPS1-SB3006-46.547.0	46.5-47.0	Discrete	PCB
BPS1-SB3006-53.053.5	53.0-53.5	Discrete	PCB
BPS1-SB3006-56.557.0	56.5-57.0	Discrete	PCB
BPS1-SB3006-67.067.5	67.0-67.5	Discrete	PCB
BPS1-SB3006-72.072.5	72.0-72.5	Discrete	PCB
BPS1-SB3006-77.077.5	77.0-77.5	Discrete	PCB
BPS1-SB3006-80.581.0	80.5-81.0	Discrete	PCB
BPS1-SB3006-86.086.5	86.0-86.5	Discrete	PCB
BPS1-SB3006-91.091.5	91.0-91.5	Discrete	PCB
BPS1-SB3006-96.096.5	96.0-96.5	Discrete	PCB
BPS1-SB3006-101.0101.5	101.0-101.5	Discrete	PCB
BPS1-SB3006-107.0107.5	107.0-107.5	Discrete	PCB
BPS1-SB3006-110.0111.5	110.0-111.5	Discrete	PCB
BPS1-SB3006-117.0117.5	117.0-117.5	Discrete	PCB
BPS1-SB3006-120130	120-130	Composite	PCB
BPS1-SB3006-130140	130-140	Composite	PCB
BPS1-SB3006-140150	140-150	Composite	PCB
BPS1-SB3006-150160	150-160	Composite	PCB
BPS1-SB3006-160170	160-170	Composite	PCB
BPS1-SB3006-170178	170-178	Composite	PCB
BPS1-SB3006-181.0181.5	181.0-181.5	Discrete	PCB
BPS1-SB3006-180190	180-190	Composite	PCB
BPS1-SB3006-190200	190-200	Composite	PCB
BPS1-SB3006-200210	200-210	Composite	PCB
BPS1-SB3006-210220	210-220	Composite	PCB
BPS1-SB3006-226.5227.0	226.5-227.0	Discrete	PCB
BPS1-SB3006-220230	220-230	Composite	PCB
BPS1-SB3006-230240	230-240	Composite	PCB
BPS1-SB3006-240250	240-250	Composite	PCB
BPS1-SB3007-08.008.5	8.0-8.5	Discrete	PCB
BPS1-SB3007-27.027.5	27.0-27.5	Discrete	PCB

TABLE 3-1
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sampled Interval (feet bgs)	Collection Method	Analysis
BPS1-SB3007-30.030.5	30.0-30.5	Discrete	PCB
BPS1-SB3007-37.538.0	37.5-38.0	Discrete	PCB
BPS1-SB3007-43.544.0	43.5-44.0	Discrete	PCB
BPS1-SB3007-47.047.5	47.0-47.5	Discrete	PCB
BPS1-SB3007-52.052.5	52.0-52.5	Discrete	PCB
BPS1-SB3007-57.057.5	57.0-57.5	Discrete	PCB
BPS1-SB3007-64.064.5	64.0-64.5	Discrete	PCB
BPS1-SB3007-67.568.0	67.5-68.0	Discrete	PCB
BPS1-SB3007-72.573.0	72.5-73.0	Discrete	PCB
BPS1-SB3007-77.077.5	77.0-77.5	Discrete	PCB
BPS1-SB3007-82.583.0	82.5-83.0	Discrete	PCB
BPS1-SB3007-87.087.5	87.0-87.5	Discrete	PCB
BPS1-SB3007-90.090.5	90.0-90.5	Discrete	PCB
BPS1-SB3007-96.597.0	96.5-97.0	Discrete	PCB
BPS1-SB3007-100.0100.5	100.0-100.5	Discrete	PCB
BPS1-SB3007-106.0106.5	106.0-106.5	Discrete	PCB
BPS1-SB3007-110.0110.5	110.0-110.5	Discrete	PCB
BPS1-SB3007-116.0116.5	116.0-116.5	Discrete	PCB
BPS1-SB3007-120130	120-130	Composite	PCB
BPS1-SB3007-133.0133.5	133.0-133.5	Discrete	PCB
BPS1-SB3007-130140	130-140	Composite	PCB
BPS1-SB3007-140150	140-150	Composite	PCB
BPS1-SB3007-150160	150-160	Composite	PCB
BPS1-SB3007-160170	160-170	Composite	PCB
BPS1-SB3007-170180	170-180	Composite	PCB
BPS1-SB3007-180190	180-190	Composite	PCB
BPS1-SB3007-190198	190-198	Composite	PCB
BPS1-SB3007-200210	200-210	Composite	PCB
BPS1-SB3007-217.5218.0	217.5-218.0	Discrete	PCB
BPS1-SB3007-210220	210-220	Composite	PCB
BPS1-SB3007-220230	220-230	Composite	PCB
BPS1-SB3007-230240	230-240	Composite	PCB
BPS1-SB3007-240250	240-250	Composite	PCB
BPS1-SB3008-0.008.0	0-8	Composite	PCB
BPS1-SB3008-07.025.0	7-25	Composite	PCB
BPS1-SB3008-27.027.5	27.0-27.5	Discrete	PCB
BPS1-SB3008-34.034.5	34.0-34.5	Discrete	PCB
BPS1-SB3008-37.037.5	37.0-37.5	Discrete	PCB
BPS1-SB3008-41.041.5	41.0-41.5	Discrete	PCB
BPS1-SB3008-47.047.5	47.0-47.5	Discrete	PCB
BPS1-SB3008-52.052.5	52.0-52.5	Discrete	PCB
BPS1-SB3008-57.057.5	57.0-57.5	Discrete	PCB
BPS1-SB3008-64.064.5	64.0-64.5	Discrete	PCB
BPS1-SB3008-67.568.0	67.5-68.0	Discrete	PCB
BPS1-SB3008-73.073.5	73.0-73.5	Discrete	PCB
BPS1-SB3008-77.077.5	77.0-77.5	Discrete	PCB
BPS1-SB3008-83.083.5	83.0-83.5	Discrete	PCB
BPS1-SB3008-86.587.0	86.5-87.0	Discrete	PCB
BPS1-SB3008-91.592.0	91.5-92.0	Discrete	PCB
BPS1-SB3008-97.097.5	97.0-97.5	Discrete	PCB
BPS1-SB3008-103.5104.0	103.5-104.0	Discrete	PCB
BPS1-SB3008-107.0107.5	107.0-107.5	Discrete	PCB

TABLE 3-1
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sampled Interval (feet bgs)	Collection Method	Analysis
BPS1-SB3008-111.5112.0	111.5-112.0	Discrete	PCB
BPS1-SB3008-116.5117.0	116.5-117.0	Discrete	PCB
BPS1-SB3008-120130	120-130	Composite	PCB
BPS1-SB3008-130140	130-140	Composite	PCB
BPS1-SB3008-140150	140-150	Composite	PCB
BPS1-SB3008-150160	150-160	Composite	PCB
BPS1-SB3008-161.0161.5	161.0-161.5	Discrete	PCB
BPS1-SB3008-160170	160-170	Composite	PCB
BPS1-SB3008-170180	170-180	Composite	PCB
BPS1-SB3008-180190	180-190	Composite	PCB
BPS1-SB3008-190198	190-198	Composite	PCB
BPS1-SB3008-200210	200-210	Composite	PCB
BPS1-SB3008-210220	210-220	Composite	PCB
BPS1-SB3008-220230	220-230	Composite	PCB
BPS1-SB3008-234.5235.0	234.5-235.0	Discrete	PCB
BPS1-SB3008-230238	230-238	Composite	PCB
BPS1-SB3009-08.025.0	8-25	Composite	PCB
BPS1-SB3009-27.027.5	27.0-27.5	Discrete	PCB
BPS1-SB3009-30.030.5	30.0-30.5	Discrete	PCB
BPS1-SB3009-36.036.5	36.0-36.5	Discrete	PCB
BPS1-SB3009-41.041.5	41.0-41.5	Discrete	PCB
BPS1-SB3009-46.046.5	46.0-46.5	Discrete	PCB
BPS1-SB3009-51.051.5	51.0-51.5	Discrete	PCB
BPS1-SB3009-56.056.5	56.0-56.5	Discrete	PCB
BPS1-SB3009-62.062.5	62.0-62.5	Discrete	PCB
BPS1-SB3009-67.067.5	67.0-67.5	Discrete	PCB
BPS1-SB3009-73.574.0	73.5-74.0	Discrete	PCB
BPS1-SB3009-77.077.5	77.0-77.5	Discrete	PCB
BPS1-SB3009-81.582.0	81.5-82.0	Discrete	PCB
BPS1-SB3009-86.587.0	86.5-87.0	Discrete	PCB
BPS1-SB3009-90.591.0	90.5-91.0	Discrete	PCB
BPS1-SB3009-96.096.5	96.0-96.5	Discrete	PCB
BPS1-SB3009-101.0101.5	101.0-101.5	Discrete	PCB
BPS1-SB3009-106.0106.5	106.0-106.5	Discrete	PCB
BPS1-SB3009-113.5114.0	113.5-114.0	Discrete	PCB
BPS1-SB3009-117.0117.5	117.0-117.5	Discrete	PCB
BPS1-SB3009-120130	120-130	Composite	PCB
BPS1-SB3009-130140	130-140	Composite	PCB
BPS1-SB3009-140.0140.5	140.0-140.5	Discrete	PCB
BPS1-SB3009-140150	140-150	Composite	PCB
BPS1-SB3009-150160	150-160	Composite	PCB
BPS1-SB3009-160170	160-170	Composite	PCB
BPS1-SB3009-170180	170-180	Composite	PCB
BPS1-SB3009-180190	180-190	Composite	PCB
BPS1-SB3009-190198	190-198	Composite	PCB
BPS1-SB3009-209.0209.5	209.0-209.5	Discrete	PCB
BPS1-SB3009-200210	200-210	Composite	PCB
BPS1-SB3009-213.0213.5	213.0-213.5	Discrete	PCB
BPS1-SB3009-210220	210-220	Composite	PCB
BPS1-SB3009-220230	220-230	Composite	PCB
BPS1-SB3009-230240	230-240	Composite	PCB
BPS1-SB3009-240250	240-250	Composite	PCB

TABLE 3-1
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sampled Interval (feet bgs)	Collection Method	Analysis
BPS1-SB3010-0008	0-8	Composite	PCB
BPS1-SB3010-0818	8-18	Composite	PCB
BPS1-SB3010-1828	18-28	Composite	PCB
BPS1-SB3010-2838	28-38	Composite	PCB
BPS1-SB3010-3848	38-48	Composite	PCB
BPS1-SB3010-4858	48-58	Composite	PCB
BPS1-SB3010-49.049.5	49.0-49.5	Discrete	PCB
BPS1-SB3010-5868	58-68	Composite	PCB
BPS1-SB3010-6878	68-78	Composite	PCB
BPS1-SB3010-7888	78-88	Composite	PCB
BPS1-SB3010-93.594.0	93.5-94.0	Discrete	PCB
BPS1-SB3010-8898	88-98	Composite	PCB
BPS1-SB3010-98108	98-108	Composite	PCB
BPS1-SB3010-108118	108-118	Composite	PCB
BPS1-SB3010-118148	118-148	Composite	PCB
BPS1-SB3010-148168	148-168	Composite	PCB
BPS1-SB3010-188.0188.5	188.0-188.5	Discrete	PCB
BPS1-SB3010-168198	168-198	Composite	PCB
BPS1-SB3011-0008	0-8	Composite	PCB
BPS1-SB3011- 0818	8-18	Composite	PCB
BPS1-SB3011- 1828	18-28	Composite	PCB
BPS1-SB3011- 2838	28-38	Composite	PCB
BPS1-SB3011- 3848	38-48	Composite	PCB
BPS1-SB3011-48.549.0	48.5-49.0	Discrete	PCB
BPS1-SB3011- 4858	48-58	Composite	PCB
BPS1-SB3012-0008	0-8	Composite	PCB
BPS1-SB3012-0818	8-18	Composite	PCB
BPS1-SB3012-1828	18-28	Composite	PCB
BPS1-SB3012-2838	28-38	Composite	PCB
BPS1-SB3012-3848	38-48	Composite	PCB
BPS1-SB3012-4858	48-58	Composite	PCB
BPS1-SB3012-5868	58-68	Composite	PCB
BPS1-SB3012-6878	68-78	Composite	PCB
BPS1-SB3012-7888	78-88	Composite	PCB
BPS1-SB3012-8898	88-98	Composite	PCB
BPS1-SB3012-98108	98-108	Composite	PCB
BPS1-SB3012-112.5113.0	112.5-113.0	Discrete	PCB
BPS1-SB3012-108118	108-118	Composite	PCB
BPS1-SB3012-128138	128-138	Composite	PCB
BPS1-SB3012-138148	138-148	Composite	PCB
BPS1-SB3012-148158	148-158	Composite	PCB
BPS1-SB3012-158168	158-168	Composite	PCB
BPS1-SB3012-168178	168-178	Composite	PCB
BPS1-SB3012-178198	178-198	Composite	PCB
BPS1-SB3012-203.0203.5	203.0-203.5	Discrete	PCB
BPS1-SB3012-198208	198-208	Composite	PCB

Notes:
bgs : below ground surface
PCB : Polychlorinated Biphenyls

TABLE 3-2
LAB CONFIRMATION SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sample Interval (feet bgs)	Collection Method	
BPS1-SB3004-27.528.0	27.5-28.0	Discrete	PCB
BPS1-SB3004-34.034.5	34.0-34.5	Discrete	PCB
BPS1-SB3004-37.037.5	37.0-37.5	Discrete	PCB
BPS1-SB3004-42.042.5	42.0-42.5	Discrete	PCB
BPS1-SB3004-47.047.5	47.0-47.5	Discrete	PCB
BPS1-SB3004-49.049.5	49.0-49.5	Discrete	PCB
BPS1-SB3004-54.054.5	54.0-54.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3004-64.565.0	64.5-65.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3004-116.0116.5	116.0-116.5	Discrete	PCB
BPS1-SB3004-154.0154.5	154.0-154.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3004-180190	180-190	Composite	PCB
BPS1-SB3004-235.0235.5	235.0-235.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3005-27.528.0	27.5-28.0	Discrete	PCB
BPS1-SB3005-34.034.5	34.0-34.5	Discrete	PCB
BPS1-SB3005-37.538.0	37.5-38.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3005-43.043.5	43.0-43.5	Discrete	PCB
BPS1-SB3005-49.049.5	49.0-49.5	Discrete	PCB
BPS1-SB3005-54.555.0	54.5-55.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3005-57.558.0	57.5-58.0	Discrete	PCB
BPS1-SB3005-94.595.0	94.5-95.0	Discrete	PCB
BPS1-SB3005-145.0145.5	145.0-145.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3005-145.0145.5 DUP	145.0-145.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3005-180190	180-190	Composite	PCB
BPS1-SB3005-232.5233.0	232.5-233.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3006-32.032.5	32.0-32.5	Discrete	PCB
BPS1-SB3006-32.032.5 DUP	32.0-32.5	Discrete	PCB
BPS1-SB3006-53.053.5	53.0-53.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3006-72.072.5	72.0-72.5	Discrete	PCB
BPS1-SB3006-117.0117.5	117.0-117.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3006-181.0181.5	181.0-181.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3006-181.0181.5 DUP	181.0-181.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3006-226.5227.0	226.5-227.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3007-37.538.0	37.5-38.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3007-57.57.5	57.0-57.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3007-100.0100.5	100.0-100.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3007-140150	140-150	Composite	PCB
BPS1-SB3007-217.5218.0	217.5-218.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3007-240250	240-250	Composite	PCB
BPS1-SB3008-37.037.5	37.0-37.5	Discrete	PCB
BPS1-SB3008-52.052.5	52.0-52.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3008-86.587.0	86.5-87.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3008-161.0161.5	161.0-161.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3008-200210	200-210	Composite	PCB
BPS1-SB3008-234.5235.0	234.5-235.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3009-27.027.5	27.0-27.5	Discrete	PCB
BPS1-SB3009-36.036.5	36.0-36.5	Discrete	PCB
BPS1-SB3009-51.051.5	51.0-51.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3009-51.051.5 DUP	51.0-51.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3009-96.096.5	96.0-96.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3009-140.0140.5	140.0-140.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3009-209.0209.5	209.0-209.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3010-0008	0-8	Composite	PCB
BPS1-SB3010-49.049.5	49.0-49.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3010-5868	58-68	Composite	PCB
BPS1-SB3010-93.594.0	93.5-94.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3010-118148	118-148	Composite	PCB
BPS1-SB3010-188.0188.5	188.0-188.5	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3011-1828	18-28	Composite	PCB
BPS1-SB3011-3848	38-48	Composite	PCB
BPS1-SB3011-48.549.0	48.5-49.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3012-39.039.5	39.0-39.5	Discrete	PCB, VOC, DRO, GRO, TOC

TABLE 3-2
LAB CONFIRMATION SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sample Interval (feet bgs)	Collection Method	
BPS1-SB3012-4858	48-58	Composite	PCB
BPS1-SB3012-5868	58-68	Composite	PCB
BPS1-SB3012-112.5113.0	112.5-113.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3012-112.5113.0 DUP	112.5-113.0	Discrete	PCB, VOC, DRO, GRO, TOC
BPS1-SB3012-158168	158-168	Composite	PCB
BPS1-SB3012-203.0203.5	203.0-203.5	Discrete	PCB, VOC, DRO, GRO, TOC

Notes:
bgs : below ground surface
PCB : Polychlorinated Biphenyls
VOC : Volatile Organic Compounds
DRO : Diesel Range Organics
GRO : Gasoline Range Organics
TOC : Total Organic Carbon
DUP : Duplicate sample

TABLE 3-3
GROUNDWATER GRAB SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Sample Interval (feet bgs)	Collection Method	Analysis
BPS1-GW3010-5761	57-61	Groundwater Grab	PCB and VOC
BPS1-GW3010-114118	114-118	Groundwater Grab	PCB and VOC
BPS1-GW3010-144148	144-148	Groundwater Grab	PCB and VOC
BPS1-GW3010-144148 DUP	144-148	Groundwater Grab	PCB and VOC
BPS1-GW3010-196200	196-200	Groundwater Grab	PCB and VOC
BPS1-GW3012-4852	48-52	Groundwater Grab	PCB and VOC
BPS1-GW3012-110114	110-114	Groundwater Grab	PCB and VOC
BPS1-GW3012-144148	144-148	Groundwater Grab	PCB and VOC
BPS1-GW3012-200204	200-204	Groundwater Grab	PCB and VOC

Notes:
bgs : below ground surface
PCB : Polychlorinated Biphenyls
VOC : Volatile Organic Compounds
DUP : Duplicate

TABLE 3-4
MONITORING WELL CONSTRUCTION DETAILS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHAPGE, NEW YORK

Monitoring Well ID	Installation Date	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	Reference Elevation TOC (PVC) (feet MSL)	Ground Surface Elevation (feet MSL)
BPS1-FW-MW01	NA	63.5[1]	48.5-63.5[1]	126.10	123.57
BPS1-FW-MW02	NA	64[1]	49-64[1]	126.85	124.23
BPS1-FW-MW03	NA	67[1]	52-67[1]	125.46	122.86
BPS1-HN-MW29I	11/26/1991	130.5[2]	120-130[2]	115.37	116.06
BPS1-TT-MW301S	11/10/2010	62	51-61	128.88	126.37
BPS1-TT-MW301I	11/12/2010	141	130-140	128.48	125.95
BPS1-TT-MW301D	10/29/2010	221	210-220	128.9	126.35
BPS1-TT-MW302S	10/30/2010	52	41-51	116.01	116.32
BPS1-TT-MW302I1	10/26/2010	121	110-120	115.91	116.32
BPS1-TT-MW302I2	10/18/2010	151	140-150	115.91	116.33
BPS1-TT-MW302D	10/16/2010	218	203-213	116.08	116.35
BPS1-TT-MW303S	8/18/2010	58	46-56	115.65	116.06
BPS1-TT-MW303I1	10/19/2010	106	95-105	115.83	116.08
BPS1-TT-MW303I2	10/17/2010	157	146-156	115.89	116.15
BPS1-TT-MW303D	10/14/2010	228	208-218	115.94	116.2
BPS1-TT-MW304S	11/13/2010	54	43-53	119.13	116.49
BPS1-TT-MW304I1	11/11/2010	113	102-112	119.27	116.77
BPS1-TT-MW304I2	11/1/2010	151	140-150	119.18	116.7
BPS1-TT-MW304D	10/27/2010	191	180-190	119.19	116.67

NOTES:

bgs : below ground surface
MW : Monitoring Well
MSL : Mean Sea Level
NA : Not Available
PVC : Polyvinyl chloride
TOC : Top of Casing

[1] Top of Casing Measurement

[2] #1 Morie Sand to 117' bgs
Masonry Sand to 115' bgs
Bentonite slurry to 112' bgs
Bentonite grout to surface

TABLE 3-5
GROUNDWATER ELEVATION SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Well	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	Dec. 2010 Water Level (feet BTOC)	Mar. 2011 Water Level (feet BTOC)	Surveyed TOC (feet MSL)	Ground Surface Elevation (feet MSL)	Dec. 2010 Water Level (feet MSL)	Mar. 2011 Water Level (feet MSL)
BPS1-FW-MW01	63.47	48.5-63.5[1]	53.89	54.52	126.1	123.57	72.21	71.58
BPS1-FW-MW02	64.18	49-64[1]	54.53	55.15	126.85	124.23	72.32	71.70
BPS1-FW-MW03	**67**	52-67[1]	53.02	53.64	125.46	122.86	72.44	71.82
BPS1-HN-MW29I	130.5	120-130	43.82	44.34	115.37	116.06	71.55	71.03
BPS1-HN-MW29D	220	210-220	44.04	44.53	115.5	116.07	71.46	70.97
BPS1-TT-MW301S	**62**	51-61	55.77	56.06	128.88	126.37	73.11	72.82
BPS1-TT-MW301I	**140**	130-140	55.71	56.07	128.48	125.95	72.77	72.41
BPS1-TT-MW301D	**220**	210-220	56.48	56.91	128.9	126.35	72.42	71.99
BPS1-TT-MW302S	**51**	41-51	44	44.61	116.01	116.32	72.01	71.40
BPS1-TT-MW302I1	**120**	110-120	44.07	44.63	115.91	116.32	71.84	71.28
BPS1-TT-MW302I2	**150**	140-150	44.36	44.88	115.91	116.33	71.55	71.03
BPS1-TT-MW302D	**213**	203-213	44.66	45.18	116.08	116.35	71.42	70.90
BPS1-TT-MW303S	**58**	46-56	43.71	44.36	115.65	116.06	71.94	71.29
BPS1-TT-MW303I1	**105**	95-105	44.15	44.74	115.83	116.08	71.68	71.09
BPS1-TT-MW303I2	**156**	146-156	44.53	45.05	115.89	116.15	71.36	70.84
BPS1-TT-MW303D	**218**	208-218	44.71	45.21	115.94	116.2	71.23	70.73
BPS1-TT-MW304S	**53**	43-53	47.66	48.26	119.13	116.49	71.47	70.87
BPS1-TT-MW304I1	**112**	102-112	47.91	48.54	119.27	116.77	71.36	70.73
BPS1-TT-MW304I2	**150**	140-150	48.16	48.72	119.18	116.7	71.02	70.46
BPS1-TT-MW304D	**190**	180-190	48.32	48.86	119.19	116.67	70.87	70.33

Notes:
bgs : below ground surface
BTOC : Below top of casing
MSL : Mean sea level
Bold : Estimated value
[1] = Top of Casing Measurement

TABLE 4-1
SELECTED TEST KIT ANALYTICAL RESULTS/LABORATORY RESULTS
SITE 1- FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Soil Boring	Sample Depth (feet bgs)	Chloride Field Result As PCB-1248 * (mg/kg)	Fixed-Based Laboratory Results - Total PCB (mg/kg)
BPS1-SB3004	116.0 - 116.5	3.3	ND
BPS1-SB3004	120 - 130	5.24	ND
BPS1-SB3004	180 - 190	3.05	ND
BPS1-SB3005	0 - 8	**267**	NA
BPS1-SB3005	54.5 - 55.0	**197**	**161 J**
BPS1-SB3005	57.5 - 58.0	**194**	**111 J**
BPS1-SB3006	32.0 - 32.5	**11.1**	**15 J**
BPS1-SB3006	32.0 - 32.5 DUP	**11.1**	**17 J**
BPS1-SB3008	8.0 - 25.0	**52.2**	NA
BPS1-SB3008	200 - 210	**11.11**	ND
BPS1-SB3009	8.0 - 25.0	**2269**	NA
BPS1-SB3009	27.0 - 27.5	6.16	0.25 J
BPS1-SB3009	36.0 - 36.5	**17.2**	**10 J**
BPS1-SB3012	48 - 58	**12**	ND
BPS1-SB3012	58 - 68	**16.8**	ND

Notes:
bgs : below ground surface
PCB : Polychlorinated Biphenyls
mg/kg : milligram per kilogram
Bolded values are greater than 10 ppm (subsurface soil screening level)
ND : Not detected
NA : Not analyzed (between 0-25 feet bgs)
* : Field test kit readings of 0 to 3 mg/kg may be a result of the analytical method and potential chloride interferences and do not necessarily indicate the presence of PCBs.

TABLE 4-2
LABORATORY ANALYTICAL DETECTIONS - SOIL
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS Number	Project Screening Level[1]	BPS1-SB3004-27.528.0	BPS1-SB3004-34.034.5	BPS1-SB3004-37.037.5	BPS1-SB3004-42.042.5	BPS1-SB3004-47.047.5	BPS1-SB3004-49.049.5	BPS1-SB3004-54.054.5	BPS1-SB3004-64.565.0	BPS1-SB3004-116.0116.5	BPS1-SB3004-154.0154.5	BPS1-SB3004-180190	BPS1-SB3004-235.0235.5	BPS1-SB3005-27.528.0	BPS1-SB3005-34.034.5	BPS1-SB3005-37.538.0	BPS1-SB3005-43.043.5	BPS1-SB3005-49.049.5
Sample Date			7/13/10	7/14/10	7/14/10	7/14/10	7/14/10	7/14/10	7/14/10	7/14/10	7/14/10	7/14/10	7/15/10	7/15/10	7/16/10	7/16/10	7/16/10	7/16/10	7/16/10
Volatile Organic Compounds (mg/kg)																			
1,1,1-TRICHLOROETHANE	71-55-6	100							0.026 U	0.031 U		0.029 U		0.029 U			0.023 U		
2-BUTANONE	78-93-3	100							0.051 U	0.061 U		0.058 U		0.058 U			0.047 U		
TETRACHLOROETHANE	127-18-4	5.5							0.026 U	0.031 U		0.029 U		0.029 U			0.023 U		
Polychlorinated Biphenyls (mg/kg)																			
PCB-1242	53469-21-9	10	0.014 U	0.014 U	0.014 U	0.016 U	0.015 U	0.015 U	0.014 U	0.016 U	0.016 U	0.015 U	0.016 U	0.015 U	0.014 U	0.014 U	0.014 U	0.018 J	0.014 U
PCB-1248	12672-29-6	10	0.007 U	0.0071 U	0.0072 U	0.0081 U	0.0076 U	0.0078 U	0.0073 U	0.0082 U	0.0083 U	0.0077 U	0.0082 U	0.0078 U	0.0073 U	0.0073 U	0.007 U	0.0076 U	0.0073 U
PCB-1260	11096-82-5	10	0.014 U	0.014 U	0.014 U	0.016 U	0.015 U	0.015 U	0.014 U	0.016 U	0.016 U	0.015 U	0.016 U	0.015 U	0.014 U	0.014 U	0.014 U	0.015 U	0.014 U
Diesel Range Organics (mg/kg)									4.7 U	5 U		8.4 U		4.7 U			1.9 U		
Total Organic Carbon (%)									0.011 U	0.012 U		0.012 U		0.086 J			0.085 J		

Notes:
mg/kg : milligram per kilogram
U : Non-detected value
J : Estimated value
DUP : Duplicate
Bolded values indicate exceedances of Project Screening Levels
[1] NYSDEC Soil Cleanup Objectives (SCO) for Restricted Residential (RR) Use, December 2006.

TABLE 4-2
LABORATORY ANALYTICAL DETECTIONS - SOIL
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS Number	Project Screening Level[1]	BPS1-SB3005-54.555.0	BPS1-SB3005-57.558.0	BPS1-SB3005-94.595.0	BPS1-SB3005-145.0145.5	BPS1-SB3005-145.0145.5 DUP	BPS1-SB3005-180190	BPS1-SB3005-232.5233.0	BPS1-SB3006-32.032.5	BPS1-SB3006-32.032.5 DUP	BPS1-SB3006-53.053.5	BPS1-SB3006-72.072.5	BPS1-SB3006-117.0117.5	BPS1-SB3006-181.0181.5	BPS1-SB3006-181.0181.5 DUP	BPS1-SB3006-226.5227.0	BPS1-SB3007-37.538.0	BPS1-SB3007-57.57.5
Sample Date			7/16/10	7/16/10	7/16/10	7/17/10	7/17/10	7/17/10	7/17/10	7/27/10	7/27/10	7/27/10	7/27/10	7/27/10	7/28/10	7/28/10	7/28/10	7/29/10	7/29/10
Volatile Organic Compounds (mg/kg)																			
1,1,1-TRICHLOROETHANE	71-55-6	100	0.026 J			0.029 U	0.033 U		0.029 U			0.029 U		0.028 U	0.033 U	0.034 U	0.03 U	0.03 U	0.029 U
2-BUTANONE	78-93-3	100	0.057 U			0.057 U	0.066 U		0.059 U			0.058 U		0.056 U	0.066 U	0.077 U	0.059 U	0.059 U	0.057 U
TETRACHLOROETHANE	127-18-4	5.5	0.12			0.029 U	0.033 U		0.029 U			0.029 U		0.028 U	0.033 U	0.034 U	0.03 U	0.03 U	0.029 U
Polychlorinated Biphenyls (mg/kg)																			
PCB-1242	53469-21-9	10	**160 J**	**110 J**	0.016 U	0.017 U	0.017 U	0.017 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.017 U	0.018 U	0.015 U	0.015 U	0.015 U
PCB-1248	12672-29-6	10	0.0077 U	0.0073 U	0.016 J	0.0087 U	0.0088 U	0.0088 U	0.0079 U	**15 J**	**17 J**	0.022 J	0.0076 U	0.0081 U	0.0088 U	0.0091 U	0.008 U	0.008 U	0.0077 U
PCB-1260	11096-82-5	10	0.91 J	0.8 J	0.016 U	0.017 U	0.017 U	0.017 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.016 U	0.017 U	0.018 U	0.015 U	0.015 U	0.015 U
Diesel Range Organics (mg/kg)			8.5 U			6.1 U	6.9 U		4.1 U			5.8 U		6.1 U	6.6 U	6.8 U	5.9 U	5.9 U	5.7 U
Total Organic Carbon (%)			1			0.026 J	0.024 J		0.022 J			0.01 J		0.01 J	0.01 U	0.01 U	0.01 U	0.026 J	0.01 U

Notes:
mg/kg : milligram per kilogram
U : Non-detected value
J : Estimated value
DUP : Duplicate
Bolded values indicate exceedances of Project Screening Levels
[1] NYSDEC Soil Cleanup Objectives (SCO) for Restricted Residential (RR) Use, December 2006.

TABLE 4-2
LABORATORY ANALYTICAL DETECTIONS - SOIL
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS Number	Project Screening Level[1]	BPS1-SB3007-100.0100.5	BPS1-SB3007-140150	BPS1-SB3007-217.5218.0	BPS1-SB3007-240250	BPS1-SB3008-37.037.5	BPS1-SB3008-52.052.5	BPS1-SB3008-86.587.0	BPS1-SB3008-161.0161.5	BPS1-SB3008-200210	BPS1-SB3008-234.5235.0	BPS1-SB3009-27.027.5	BPS1-SB3009-36.036.5	BPS1-SB3009-51.051.5	BPS1-SB3009-51.051.5 DUP	BPS1-SB3009-96.096.5	BPS1-SB3009-140.0140.5	BPS1-SB3009-209.0209.5
Sample Date			7/29/10	7/29/10	7/30/10	7/30/10	8/2/10	8/2/10	8/2/10	8/2/10	8/3/10	8/3/10	7/31/10	7/31/10	7/31/10	7/31/10	7/31/10	7/31/10	8/1/10
Volatile Organic Compounds (mg/kg)																			
1,1,1-TRICHLOROETHANE	71-55-6	100	0.031 U		0.028 U			0.032 U	0.031 U	0.03 U		0.027 U			0.026 U	0.026 U	0.028 U	0.033 U	0.028 U
2-BUTANONE	78-93-3	100	0.062 U		0.056 U			0.065 U	0.049 U	0.059 U		0.047 U			0.051 U	0.053 U	0.057 U	0.066 U	0.055 U
TETRACHLOROETHANE	127-18-4	5.5	0.031 U		0.028 U			0.032 U	0.031 U	0.03 U		0.027 U			0.026 U	0.026 U	0.028 U	0.033 U	0.028 U
Polychlorinated Biphenyls (mg/kg)																			
PCB-1242	53469-21-9	10	0.016 U	0.016 U	0.016 U	0.016 U	0.014 U	0.017 U	0.016 U	0.015 U	0.016 U	0.016 U	0.014 U	0.014 U	0.015 U	0.015 U	0.015 U	0.017 U	0.016 U
PCB-1248	12672-29-6	10	0.0084 U	0.0081 U	0.0081 U	0.0083 U	0.073 J	0.21 J	0.0082 U	0.0079 U	0.0082 U	0.0083 U	0.25 J	**10 J**	0.26 J	0.23 J	0.0076 U	0.0089 U	0.008 U
PCB-1260	11096-82-5	10	0.016 U	0.016 U	0.016 U	0.016 U	0.014 U	0.017 U	0.016 U	0.015 U	0.016 U	0.016 U	0.014 U	0.014 U	0.015 U	0.015 U	0.015 U	0.017 U	0.016 U
Diesel Range Organics (mg/kg)			6.3 U		6.1 U			13	7.4 J	5.3 J		4.6 J			2.9 J	11	3.2 J	5.2 J	7 J
Total Organic Carbon (%)			0.01 U		0.01 U			0.038 J	0.015 J	0.01 U		0.021 J			0.01 U	0.012 J	0.01 U	0.01 U	0.013 J

Notes:
mg/kg : milligram per kilogram
U : Non-detected value
J : Estimated value
DUP : Duplicate
Bolded values indicate exceedances of Project Screening Levels
[1] NYSDEC Soil Cleanup Objectives (SCO) for Restricted Residential (RR) Use, December 2006.

TABLE 4-2
LABORATORY ANALYTICAL DETECTIONS - SOIL
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS Number	Project Screening Level[1]	BPS1-SB3010-0008	BPS1-SB3010-49.049.5	BPS1-SB3010-5868	BPS1-SB3010-93.594.0	BPS1-SB3010-118148	BPS1-SB3010-188.0188.5	BPS1-SB3011-1828	BPS1-SB3011-3848	BPS1-SB3011-48.549.0	BPS1-SB3012-39.039.5	BPS1-SB3012-4858	BPS1-SB3012-5868	BPS1-SB3012-112.5113.0	BPS1-SB3012-112.5113.0 DUP	BPS1-SB3012-158168	BPS1-SB3012-203.0203.5
Sample Date			8/15/10	8/15/10	8/16/10	8/16/10	8/16/10	8/17/10	8/18/10	8/18/10	8/18/10	8/9/10	8/10/10	8/10/10	8/11/10	8/11/10	8/13/10	8/14/10
Volatile Organic Compounds (mg/kg)																		
1,1,1-TRICHLOROETHANE	71-55-6	100		0.029 U		0.033 U		0.033 U			0.048 U	0.024 U			0.027 U	0.03 U		0.03 U
2-BUTANONE	78-93-3	100		0.059 U		0.066 U		0.065 U			0.096U	0.049 U			0.053 U	0.059 U		0.059 U
TETRACHLOROETHANE	127-18-4	5.5		0.029 U		0.033 U		0.033 U			0.048 U	0.024 U			0.027 U	0.03 U		0.03 U
Polychlorinated Biphenyls (mg/kg)																		
PCB-1242	53469-21-9	10	0.029 J	0.015 U	0.015 U	0.017 U	0.019 U	0.017 U	0.014 U	0.017 U	0.015 U		0.016 U	0.015 U	0.014 U	0.014 U	0.016 U	0.014 J
PCB-1248	12672-29-6	10	0.007 U	0.0079 U	0.0078 U	0.0088 U	0.0097 U	0.0087 U	0.0073 U	0.0088 U	0.0075 U		0.0081 U	0.0076 U	0.0074 U	0.007 U	0.0083 U	0.0079 U
PCB-1260	11096-82-5	10	0.010 J	0.015 U	0.015 U	0.017 U	0.019 U	0.017 U	0.014 U	0.017 U	0.015 U		0.016 U	0.015 U	0.014 U	0.014 U	0.016 U	0.015 U
Diesel Range Organics (mg/kg)				5.9 U		6.6 U		6.5 U			6.8 J	5.4 U			5.3 U	5.3 U		5.9 U
Total Organic Carbon (%)				0.02 J		0.01 U		0.01 U			0.01 U	0.01 U			0.019 J	0.013 J		0.041 J

Notes:
mg/kg : milligram per kilogram
U : Non-detected value
J : Estimated value
DUP : Duplicate
Bolded values indicate exceedances of Project Screening Levels
[1] NYSDEC Soil Cleanup Objectives (SCO) for Restricted Residential (RR) Use, December 2006.

TABLE 4-3
ANALYTICAL DETECTIONS FOR GROUNDWATER GRABS AND ASSOCIATED MONITORING WELLS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS No.	Federal MCLs [1]	NYSDOH MCLs [2]	BPS1-GW3010-5761	BPS1-TT-MW302S	BPS1-GW3010-114118	BPS1-TT-MW302I1	BPS1-GW3010-144148	BPS1-GW3010-144148 DUP	BPS1-TT-MW302I2	BPS1-GW3010-196200	BPS1-TT-MW302D
Sample Date				8/16/2010	11/30/2010	8/16/2010	3/1/2011	8/17/2010		3/1/2011	8/17/2010	3/1/2011
Volatile Organic Compounds (µg/L)												
BENZENE	71-43-2	5	5	0.5 U	0.5 U	0.5 U	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	156-59-2	70	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	127-18-4	5	5	0.5 U	0.32 J	0.5 U	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U	0.22 J
TOLUENE	108-88-3	1,000	5	0.5 U	0.5 U	0.5 U	0.1 U	0.19 J	0.21 J	0.1 U	0.27 J	0.17 U
TRICHLOROETHENE	79-01-6	5	5	0.25 U	0.25 U	0.25 U	0.76 J	0.25 U	0.25 U	1.1	0.25 U	1.4
Polychlorinated Biphenyls (µg/L)												
AROCLOR-1242	53469-21-9	0.5	0.5	0.1 J	**0.6 J**	0.42	**1.9 J**	0.25 J	0.26 J	**1.8 J**	0.17 J	**1.3 J**

Notes:
µg/L : micrograms per liter
U : Non-detected value
J : Estimated value
MCL : Maximum Contaminant Level
Bold Indicates Exceedance of MCLs
[1] (USEPA, 2007) Drinking Water Contaminants National Primary Drinking Water
[2] (NYSDOH, 2004) New York Public Supply Regulations, 10 NYCRR Part 5,

TABLE 4-3
ANALYTICAL DETECTIONS FOR GROUNDWATER GRABS AND ASSOCIATED MONITORING WELLS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS No.	Federal MCLs [1]	NYSDOH MCLs [2]	BPS1-GW3012-4852	BPS1-TT-MW304S	BPS1-GW3012-110114	BPS1-TT-MW304I1	BPS1-GW3012-144148	BPS1-TT-MW304I2	BPS1-GW3012-200204	BPS1-TT-MW304D
Sample Date				8/10/2010	3/3/2011	8/12/2010	3/2/2011	8/13/2010	3/3/2011	8/14/2010	11/30/2010
Volatile Organic Compounds (µg/L)											
BENZENE	71-43-2	5	5	0.5 U	0.5 U	0.5 U	**6.1**	0.19 J	0.31 J	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	156-59-2	70	5	0.5 U	0.5 U	0.5 U	**35**	0.61 J	3.1	0.5 U	0.5 U
TETRACHLOROETHENE	127-18-4	5	5	0.5 U	0.5 U	0.5 U	**54**	0.91 J	4.8	0.5 U	0.5 J
TOLUENE	108-88-3	1,000	5	0.5 U	0.1 U	0.25 J	0.1 U	0.5 U	0.1 U	0.5 U	0.5 U
TRICHLOROETHENE	79-01-6	5	5	0.25 U	0.5 U	0.25 U	**11**	1.4	1.4	0.25 U	0.25 U
Polychlorinated Biphenyls (µg/L)											
AROCLOR-1242	53469-21-9	0.5	0.5	0.086 U	0.08 U	0.08 U	**0.89 J**	0.24	**2.6 J**	0.08 U	**4 J**

Notes:
µg/L : micrograms per liter
U : Non-detected value
J : Estimated value
MCL : Maximum Contaminant Level
Bold Indicates Exceedance of MCLs
[1] (USEPA, 2007) Drinking Water Contaminants National Primary Drinking Water
[2] (NYSDOH, 2004) New York Public Supply Regulations, 10 NYCRR Part 5,

TABLE 4-4
ANALYTICAL DETECTIONS GROUNDWATER (MONITORING WELLS)
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS No.	Federal MCLs [1]	NYSDOH MCLs [2]	BPS1-HN-MW29I	BPS1-HN-MW29I	BPS1-FW-MW01	BPS1-FW-MW01	BPS1-FW-MW02 DUP	BPS1-FW-MW02	BPS1-FW-MW02	BPS1-FW-MW03	BPS1-FW-MW03
Sample Date				12/1/2010	3/2/2011	11/30/2010	3/2/2011	11/30/2010	11/30/2010	3/2/2011	11/30/2010	3/3/2011
Volatile Organic Compounds (µg/l)												
ACETONE	67-64-1	NE	50	5 U	1.4 U	5 U	1.0 U	5 U	5 U	1.0 U	5 U	1.0 U
1,1,1-TRICHLOROETHANE	71-55-6	200	5	0.5 U	0.5 U	**7.9**	**23**	0.65 J	0.62 J	0.98 J	0.29 J	0.39 J
1,1,2-TRICHLOROTRIFLUOROETHANE	76-13-1	NE	50	0.5 U	0.5 U	0.62 J	1.4	0.5 U	0.5 U	0.31 J	0.5 U	0.5 U
1,1-DICHLOROETHANE	75-34-3	NE	5	0.5 U	0.5 U	3.8	4.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	75-35-4	7	5	0.5 U	0.5 U	0.46 J	0.59 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	156-59-2	70	5	0.5 U	0.5 U	**32**	**110**	0.5 U	0.5 U	0.28 J	0.34 J	0.45 J
DICHLORODIFLUOROMETHANE	75-71-8	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	127-18-4	5	5	1.3	0.58 J	**180**	**550**	**28**	**29**	**41**	**67**	**66**
TOLUENE	108-88-3	1000	5	0.5 U	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.5 U	0.1 U
TRANS-1,2-DICHLOROETHENE	156-60-5	5	5	0.5 U	0.5 U	0.51 J	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	79-01-6	5	5	0.57 J	0.40 J	**15**	**41**	2.2	2.4	3.9	3.8	3.8
TRICHLOROFLUOROMETHANE	75-69-4	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Polychlorinated Biphenyls (µg/l)												
AROCLOR-1242	53469-21-9	0.5	0.5	**0.94 J**	**1.2 J**	**1 J**	**1 J**	0.29 J	0.3 J	0.49 J	**2.8 J**	**2.1 J**
Metals (µg/l)												
HEXAVALENT CHROMIUM					1.1							
CHROMIUM - TOTAL	7440-47-3	100	100		2							
CADMIUM - TOTAL	7440-43-9	5	5		0.071 J							

Notes:
µg/l : micrograms per liter
MCLs : Maximum Contaminant Level
U : non detect
J : estimated value
DUP : Duplicate sample
Bold indicates exceedances of MCLs

[1] (USEPA, 2007) Drinking Water Contaminants National Primary Drinking Water Regulations, from the USEPA website at http://www.epa.gov/safewater/contaminants/index.html#primary

[2] (NYSDOH, 2004) New York Public Supply Regulations, 10 NYCRR Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals Maximum Contaminant Level Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants, from the NYSDOH website at http://www.health.state.ny.us/environmental/water/drinking/part5/subpart5.htm

TABLE 4-4
ANALYTICAL DETECTIONS GROUNDWATER (MONITORING WELLS)
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS No.	Federal MCLs [1]	NYSDOH MCLs [2]	BPS1-TT-MW301S	BPS1-TT-MW301S	BPS1-TT-MW301I	BPS1-TT-MW301I	BPS1-TT-MW301D	BPS1-TT-MW301D DUP	BPS1-TT-MW301D	BPS1-TT-MW302S	BPS1-TT-MW302S
Sample Date				12/1/2010	3/2/2011	12/1/2010	3/2/2011	12/1/2010	3/2/2011	3/2/2011	11/30/2010	3/1/2011
Volatile Organic Compounds (µg/l)												
ACETONE	67-64-1	NE	50	5 U	1.0 U	1.0 U	6.2 U	5 U	1.0 U	1.0 U	5 U	1.0 U
1,1,1-TRICHLOROETHANE	71-55-6	200	5	0.5 U	0.5 U	0.5 U	0.5 U	0.45 J	0.37 J	0.34 J	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	76-13-1	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	75-34-3	NE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	75-35-4	7	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	156-59-2	70	5	0.5 U	0.5 U	0.5 U	0.5 U	0.57 J	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	75-71-8	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	127-18-4	5	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	0.25 J	0.24 J	0.32 J	0.5 U
TOLUENE	108-88-3	1000	5	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.35 U	0.36 U	0.5 U	0.1 U
TRANS-1,2-DICHLOROETHENE	156-60-5	5	5	0.5 U	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	79-01-6	5	5	0.25 U	0.5 U	0.25 U	0.5 U	2.1	1.4	1.4	0.25 U	0.5 U
TRICHLOROFLUOROMETHANE	75-69-4	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Polychlorinated Biphenyls (µg/l)												
AROCLOR-1242	53469-21-9	0.5	0.5	**0.57 J**	**14 J**	**0.69 J**	**0.73 J**	**0.79 J**	**0.87 J**	**0.82 J**	**0.6 J**	0.26 J
Metals (µg/l)												
HEXAVALENT CHROMIUM							4.5					1 U
CHROMIUM - TOTAL	7440-47-3	100	100				7.7					1.3
CADMIUM - TOTAL	7440-43-9	5	5				0.27					0.1 U

Notes:
µg/l : micrograms per liter
MCLs : Maximum Contaminant Level
U : non detect
J : estimated value
DUP : Duplicate sample
Bold indicates exceedances of MCLs

[1] (USEPA, 2007) Drinking Water Contaminants National Primary Drinking Water Regulations, from the USEPA website at http://www.epa.gov/safewater/contaminants/index.html#primary

[2] (NYSDOH, 2004) New York Public Supply Regulations, 10 NYCRR Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals Maximum Contaminant Level Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants, from the NYSDOH website at http://www.health.state.ny.us/environmental/water/drinking/part5/subpart5.htm

TABLE 4-4
ANALYTICAL DETECTIONS GROUNDWATER (MONITORING WELLS)
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS No.	Federal MCLs [1]	NYSDOH MCLs [2]	BPS1-TT-MW302I1	BPS1-TT-MW302I1	BPS1-TT-MW302I2	BPS1-TT-MW302I2	BPS1-TT-MW302D	BPS1-TT-MW302D	BPS1-TT-MW303S DUP	BPS1-TT-MW303S	BPS1-TT-MW303S
Sample Date				11/30/2010	3/1/2011	1129/2010	3/1/2011	11/29/2010	3/1/2011	11/30/2010	11/30/2010	3/1/2011
Volatile Organic Compounds (µg/l)												
ACETONE	67-64-1	NE	50	5 U	1.0 U	5 U	1.0 U	5 U	1.0 U	5 U	5 U	1.0 U
1,1,1-TRICHLOROETHANE	71-55-6	200	5	0.5 U	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	76-13-1	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	75-34-3	NE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	75-35-4	7	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	156-59-2	70	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	75-71-8	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	127-18-4	5	5	0.5 U	0.19 J	0.5 U	0.5 U	0.5 U	0.22 J	1	1	0.97 J
TOLUENE	108-88-3	1000	5	0.5 U	0.1 U	0.5 U	0.1 U	0.25 J	0.17 U	0.5 U	0.5 U	0.1 U
TRANS-1,2-DICHLOROETHENE	156-60-5	5	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	79-01-6	5	5	0.55 J	0.76 J	0.88 J	1.1	1	1.4	0.25 U	0.25 U	0.76 J
TRICHLOROFLUOROMETHANE	75-69-4	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Polychlorinated Biphenyls (µg/l)												
AROCLOR-1242	53469-21-9	0.5	0.5	**2 J**	**1.9 J**	**2.6 J**	**1.8 J**	**1.1 J**	**1.3 J**	0.056 J	0.052 J	0.13 J
Metals (µg/l)												
HEXAVALENT CHROMIUM												1 U
CHROMIUM - TOTAL	7440-47-3	100	100									5.3
CADMIUM - TOTAL	7440-43-9	5	5									0.11 J

Notes:
µg/l : micrograms per liter
MCLs : Maximum Contaminant Level
U : non detect
J : estimated value
DUP : Duplicate sample
Bold indicates exceedances of MCLs

[1] (USEPA, 2007) Drinking Water Contaminants National Primary Drinking Water Regulations, from the USEPA website at http://www.epa.gov/safewater/contaminants/index.html#primary

[2] (NYSDOH, 2004) New York Public Supply Regulations, 10 NYCRR Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals Maximum Contaminant Level Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants, from the NYSDOH website at http://www.health.state.ny.us/environmental/water/drinking/part5/subpart5.htm

TABLE 4-4
ANALYTICAL DETECTIONS GROUNDWATER (MONITORING WELLS)
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS No.	Federal MCLs [1]	NYSDOH MCLs [2]	BPS1-TT-MW303I1	BPS1-TT-MW303I1	BPS1-TT-MW303I2	BPS1-TT-MW303I2	BPS1-TT-MW303D	BPS1-TT-MW303D	BPS1-TT-MW304S	BPS1-TT-MW304S	BPS1-TT-MW304I1	BPS1-TT-MW304I1
Sample Date				11/30/2010	3/1/2011	11/29/2010	3/1/2011	11/29/2010	3/1/2011	12/1/2010	3/3/2011	12/1/2010	3/2/2011
Volatile Organic Compounds (µg/l)													
ACETONE	67-64-1	NE	50	5 U	1.0 U	5 U	1.0 U	5 U	1.0 U	5 U	1.0 U	5 U	1.0 U
1,1,1-TRICHLOROETHANE	71-55-6	200	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**15**	**6.1**
1,1,2-TRICHLOROTRIFLUOROETHANE	76-13-1	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.44 J	0.5 U
1,1-DICHLOROETHANE	75-34-3	NE	5	1.7	2.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**6.9**	3.1
1,1-DICHLOROETHENE	75-35-4	7	5	2	2.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1	0.35 J
CIS-1,2-DICHLOROETHENE	156-59-2	70	5	1.9	3.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**85**	**35**
DICHLORODIFLUOROMETHANE	75-71-8	NE	50	0.28 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	127-18-4	5	5	**79**	**120**	2.1	1.5	0.5 U	0.5 U	0.5 U	0.5 U	**93**	**54**
TOLUENE	108-88-3	1000	5	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U
TRANS-1,2-DICHLOROETHENE	156-60-5	5	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7 J	0.26 J
TRICHLOROETHENE	79-01-6	5	5	**17**	**25**	2.6	1.9	0.45 J	0.40 J	0.25 U	0.5 U	**27**	**11**
TRICHLOROFLUOROMETHANE	75-69-4	NE	50	0.3 J	0.5 U	0.23 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Polychlorinated Biphenyls (µg/l)													
AROCLOR-1242	53469-21-9	0.5	0.5	**3.9 J**	**2.8 J**	**3.4 J**	**2.3 J**	0.42 J	**0.66 J**	0.08 U	0.08 U	**0.5 J**	**0.89 J**
Metals (µg/l)													
HEXAVALENT CHROMIUM											1 U		58
CHROMIUM - TOTAL	7440-47-3	100	100								1.9		55
CADMIUM - TOTAL	7440-43-9	5	5								0.043 J		0.10 U

Notes:
µg/l : micrograms per liter
MCLs : Maximum Contaminant Level
U : non detect
J : estimated value
DUP : Duplicate sample
Bold indicates exceedances of MCLs

[1] (USEPA, 2007) Drinking Water Contaminants National Primary Drinking Water Regulations, from the USEPA website at http://www.epa.gov/safewater/contaminants/index.html#primary

[2] (NYSDOH, 2004) New York Public Supply Regulations, 10 NYCRR Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals Maximum Contaminant Level Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants, from the NYSDOH website at http://www.health.state.ny.us/environmental/water/drinking/part5/subpart5.htm

TABLE 4-4
ANALYTICAL DETECTIONS GROUNDWATER (MONITORING WELLS)
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	CAS No.	Federal MCLs [1]	NYSDOH MCLs [2]	BPS1-TT-MW304I2	BPS1-TT-MW304I2	BPS1-TT-MW304D	BPS1-TTMW304D	BPS1-TTMW304D DUP
Sample Date				11/30/2010	3/3/2011	11/30/2010	3/2/2011	3/2/2011
Volatile Organic Compounds (µg/l)								
ACETONE	67-64-1	NE	50	5 U	1.0 U	5 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	71-55-6	200	5	0.64 J	0.31 J	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	76-13-1	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	75-34-3	NE	5	0.51 J	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	75-35-4	7	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	156-59-2	70	5	**8.8**	3.1	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	75-71-8	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	127-18-4	5	5	**17**	4.8	0.5 J	0.5 U	0.5 U
TOLUENE	108-88-3	1000	5	0.5 U	0.1 U	0.5 U	0.1 U	0.1 U
TRANS-1,2-DICHLOROETHENE	156-60-5	5	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	79-01-6	5	5	**5.4**	1.4	0.25 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	75-69-4	NE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Polychlorinated Biphenyls (µg/l)								
AROCLOR-1242	53469-21-9	0.5	0.5	**1.7 J**	**2.6 J**	**4 J**	**2.7 J**	**2.9 J**
Metals (µg/l)								
HEXAVALENT CHROMIUM					166		1 U	1 U
CHROMIUM - TOTAL	7440-47-3	100	100		**180**		8.6	9.5
CADMIUM - TOTAL	7440-43-9	5	5		0.10 U		0.053 J	0.066 J

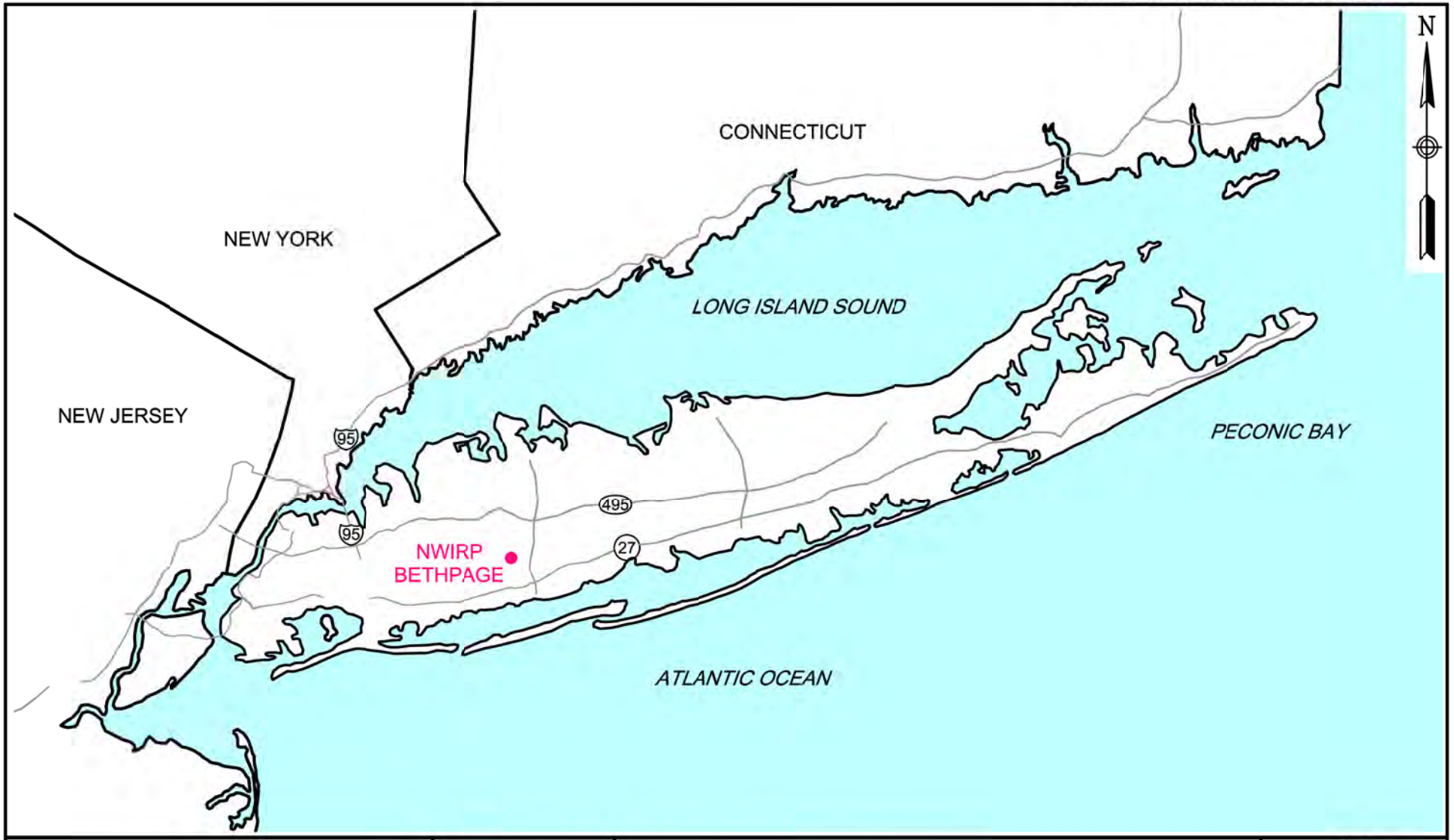
Notes:
µg/l : micrograms per liter
MCLs : Maximum Contaminant Level
U : non detect
J : estimated value
DUP : Duplicate sample
Bold indicates exceedances of MCLs

[1] (USEPA, 2007) Drinking Water Contaminants National Primary Drinking Water Regulations, from the USEPA website at http://www.epa.gov/safewater/contaminants/index.html#primary

[2] (NYSDOH, 2004) New York Public Supply Regulations, 10 NYCRR Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals Maximum Contaminant Level Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants, from the NYSDOH website at http://www.health.state.ny.us/environmental/water/drinking/part5/subpart5.htm

FIGURES

112G00622\0510\112G00622CM01.DWG 08/02/10 MKB



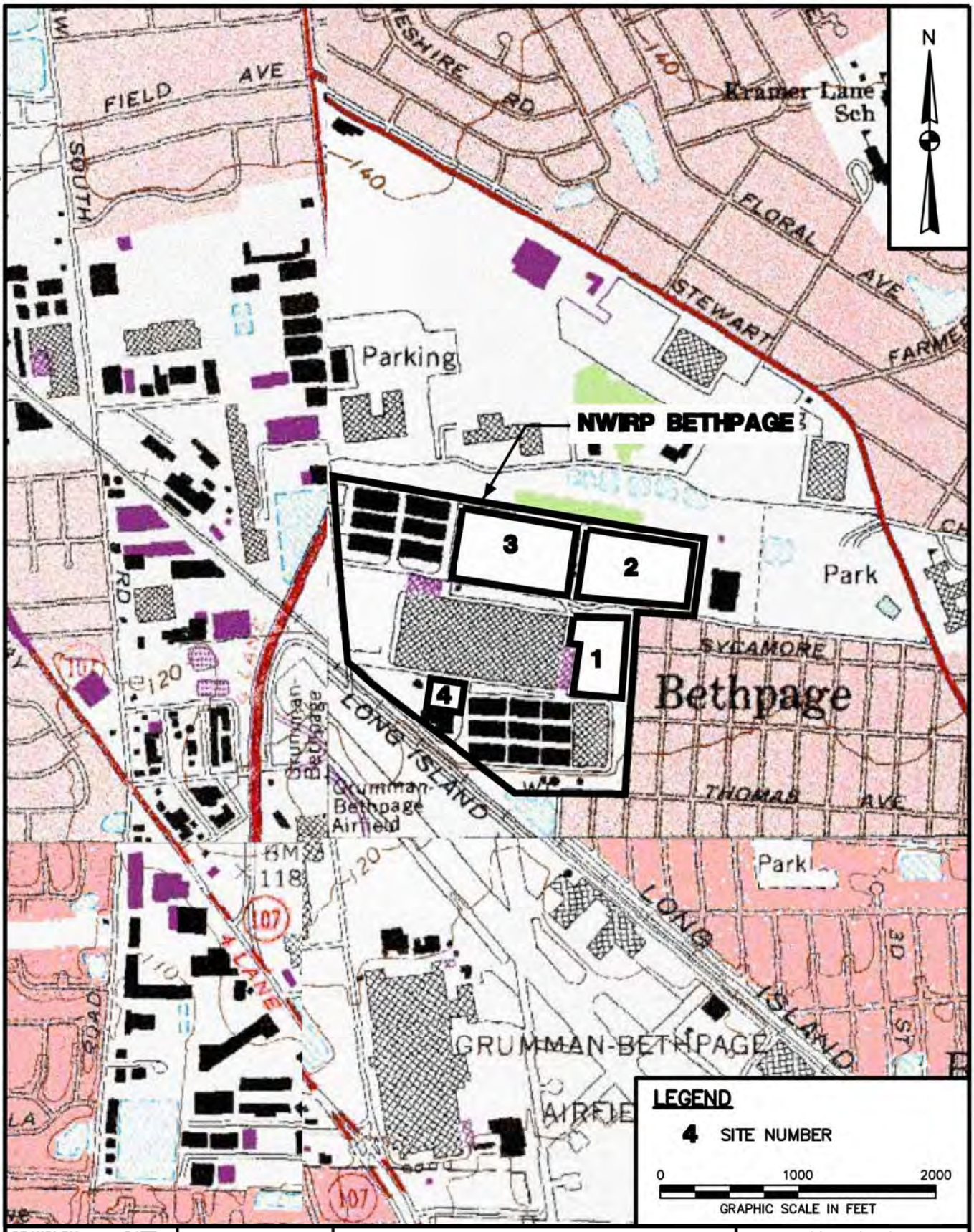
0 15 30
SCALE IN MILES

TETRA TECH NUS, INC.

GENERAL LOCATION MAP
NWIRP BETHPAGE
BETHPAGE, NEW YORK

SCALE	NOT TO SCALE
FILE	112G00622CM01
REV	0
DATE	08/02/10
FIGURE NUMBER	FIGURE 1-1

ACAD: 0804CM02.dwg 06/13/07 MF PIT



DRAWN BY MF DATE 6/13/07	Tetra Tech NUS, Inc.	SITE LOCATION MAP SITE 1 NWIRP BETHPAGE BETHPAGE, NEW YORK	CONTRACT NO. 0804
CHECKED BY DATE			OWNER NO.
REVISED BY DATE			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1-2 REV. 0

FORM CADD NO. TTNUS-AV.DWG - REV 1 -9/10/98

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 LAYOUT-04142011 MMC 07082011

N

Dry Well 20-08

DEMOLISHED 2009

Plant No. 3

Site 1

DEMOLISHED 2009

DEMOLISHED 2009

DEMOLISHED 2009

DEMOLISHED 2009

Dry Well 34-07

Plant 17 South

0 50 100 200 Feet

TETRA TECH NUS, INC

SITE 1 LAYOUT MAP
NWIRP BETHPAGE
BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	2-1	REV	DATE 7/8/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 PCB sample loc 070711.mxd MMC 07082011

N

BPS1-TT-MW301D
BPS1-TT-MW301S
BPS1-TT-MW301I
DEMOLISHED 2009
BPS1-SB3008
BPS1-SB3004
BPS1-SB3005
Site 1
BPS1-SB3006
DEMOLISHED 2009
DEMOLISHED 2009
DEMOLISHED 2009
BPS1-SB3007
DEMOLISHED
BPS1-SB3009
BPSI-FW-MW03
BPS1-FW-MW02
BPS1-FW-MW01
BPS1-HN-MW29I
BPS1-HN-MW29D
Plant No. 3
F
BPS1-TT-MW302S
BPS1-TT-MW302I2
BPS1-SB3010
BPS1-TT-MW302I1
BPS1-TT-MW302D
BPS1-SB3011
BPS1-TT-MW303D
BPS1-TT-MW303S
BPS1-TT-MW303I1
BPS1-TT-MW303I2
BPS1-SB3012
BPS1-TT-MW304S
BPS1-TT-MW304I1
BPS1-TT-MW304I2
BPS1-TT-MW304D
Plant 17 South

Legend

- Monitoring Well Location
- Soil Boring Location

0 50 100 200 Feet

TETRA TECH NUS, INC

SAMPLE LOCATION MAP
NWIRP BETHPAGE
BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	3-1	REV	DATE 7/8/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 shallow march2011.mxd MMC 07082011

N

BPS1-TT-MW301D
BPS1-TT-MW301S
72.82
BPS1-TT-MW301I

Plant No. 3

Site 1

72.5

72

71.5

71

71.82
BPSI-FW-MW03

71.70
BPS1-FW-MW02

BPS1-FW-MW01
71.58

BPS1-HN-MW29I

BPS1-HN-MW29D

71.40
BPS1-TT-MW302S

BPS1-TT-MW303S
71.29

BPS1-TT-MW302I1

BPS1-TT-MW303D

BPS1-TT-MW303I1

BPS1-TT-MW304S
70.87

BPS1-TT-MW304I1

BPS1-TT-MW304I2

BPS1-TT-MW302I2

BPS1-TT-MW303I2

BPS1-TT-MW304D

BPS1-TT-MW302D

Plant 17 South

Legend

- Monitoring Well Location
- Groundwater Contours (feet MSL)
- 71.26 Groundwater Elevation (feet MSL)

0 50 100 200 Feet

TETRA TECHNUS, INC

POTENTIOMETRIC MAP FOR SHALLOW WELLS MARCH 2011 BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 3-2	REV DATE 7/8/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 deep mar2011 MMC 07082011

N

Plant No. 3

Site 1

Plant 17 South

BPS1-TT-MW301S
BPS1-TT-MW301I
BPS1-TT-MW301D
71.99

BPS1-FW-MW03
BPS1-FW-MW02
BPS1-FW-MW01

BPS1-HN-MW29D
70.97
BPS1-HN-MW29I

BPS1-TT-MW302I2
BPS1-TT-MW302S
70.90
BPS1-TT-MW302D
BPS1-TT-MW302I1

BPS1-TT-MW303S
70.73
BPS1-TT-MW303D
BPS1-TT-MW303I1
BPS1-TT-MW303I2

BPS1-TT-MW304I1
BPS1-TT-MW304I2
BPS1-TT-MW304D
70.33

71.5
71
70.5

Legend

- Monitoring Well Location
- Groundwater Contours (feet MSL)
- 71.26 Groundwater Elevation (feet MSL)

0 70 140 280 Feet

TETRA TECH NUS, INC

POTENTIOMETRIC MAP FOR DEEP WELLS MARCH 2011 BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 3-3	REV DATE 7/8/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 PLANVIEW 04062011 MMC 07082011

N

A

BPS1-TT-MW301D
BPS1-TT-MW301S
BPS1-TT-MW301I
BPS1-SB3008
BPS1-SB3004
Site 1
BPS1-SB3005
BPS1-SB3006
BPS1-SB3007
BPS1-SB3009
BPS1-FW-MW02
BPSI-FW-MW03
BPS1-FW-MW01
BPS1-HN-MW29I
BPS1-HN-MW29D
Plant No. 3
BPS1-TT-MW302I2
BPS1-TT-MW302S
B
BPS1-SB3010
BPS1-SB3011
BPS1-TT-MW303S
BPS1-SB3012
BPS1-TT-MW304S
BPS1-TT-MW303D
BPS1-TT-MW304I1
BPS1-TT-MW303I1
A'
BPS1-TT-MW302I1
BPS1-TT-MW303I2
Plant 17
South
B'
BPS1-TT-MW304I2
BPS1-TT-MW302D
BPS1-TT-MW304D

Legend

- Monitoring Well Location
- Soil Boring Location

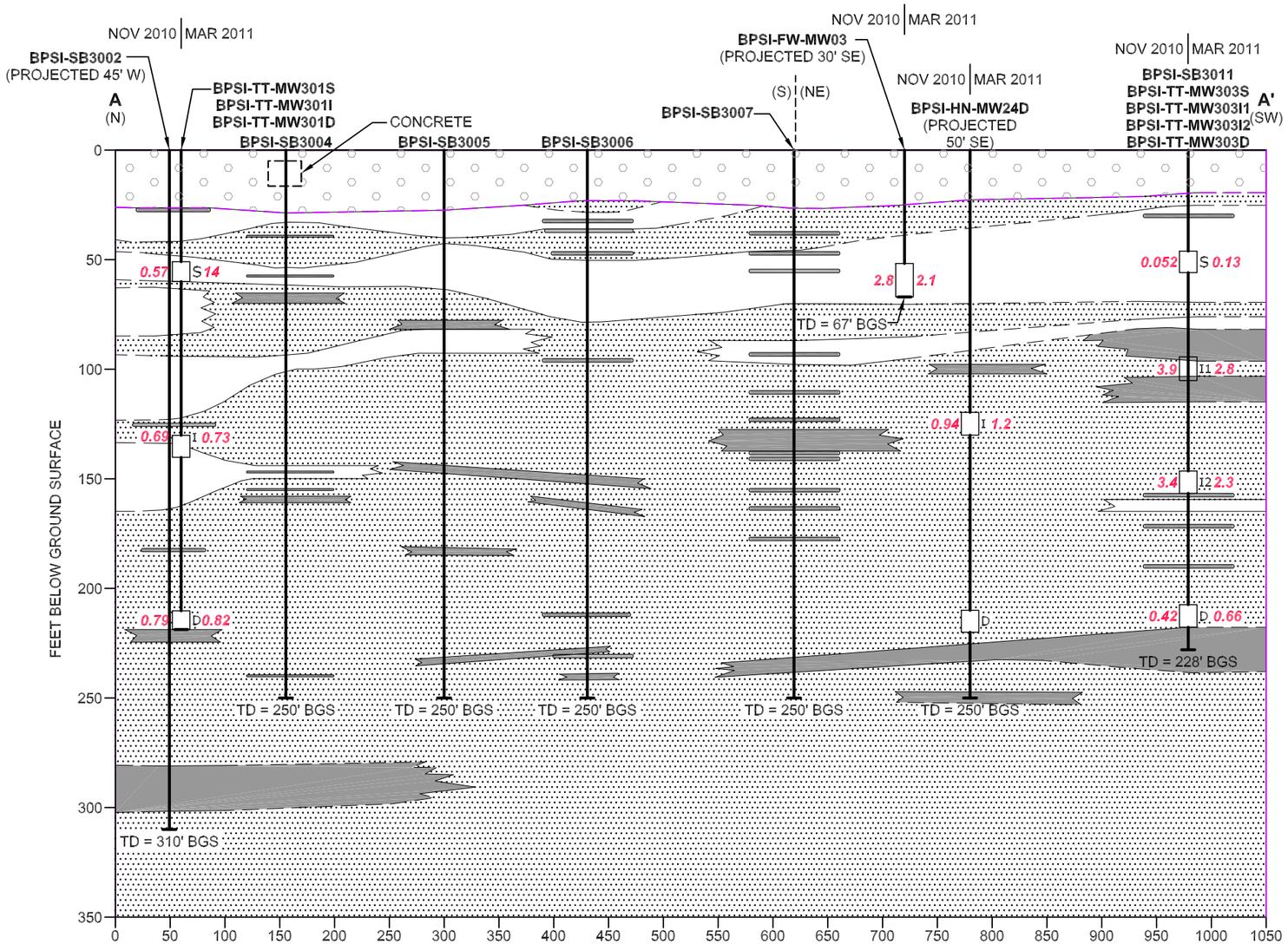
0 50 100 200 Feet

TETRA TECH NUS, INC

CROSS SECTION LOCATION MAP
NWIRP BETHPAGE
BETHPAGE, NEW YORK

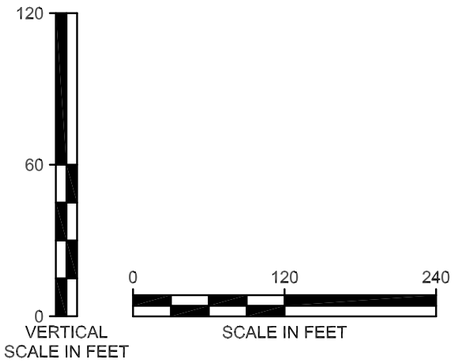
FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-1	REV	DATE 7/8/11

112G01041/0275/112G01041GS19-1.DWG 04/26/11 MKB



LEGEND

- SAND AND GRAVEL
- F-C SAND
- SILTY VF-F SAND
- CLAY, CLAYEY SILT, OR SANDY CLAY
- NOV 2010 | MAR 2011 — SAMPLING EVENTS
- BPSI-SB3011 — SOIL BORING
- BPSI-TT-MW303S — MONITORING WELL
- (PROJECTED 50' NW) — PROJECTED DISTANCE AND DIRECTION TO CROSS SECTION LINE
- GROUND SURFACE (APPROXIMATED TO BE FLAT)
- CLAY LENS (FEW INCHES)
- 0.57 S 14 — MONITORING WELL SCREEN AND TOTAL PCBs (µg/L)
- TD = 250' BGS — TOTAL DEPTH (BGS) BELOW GROUND SURFACE

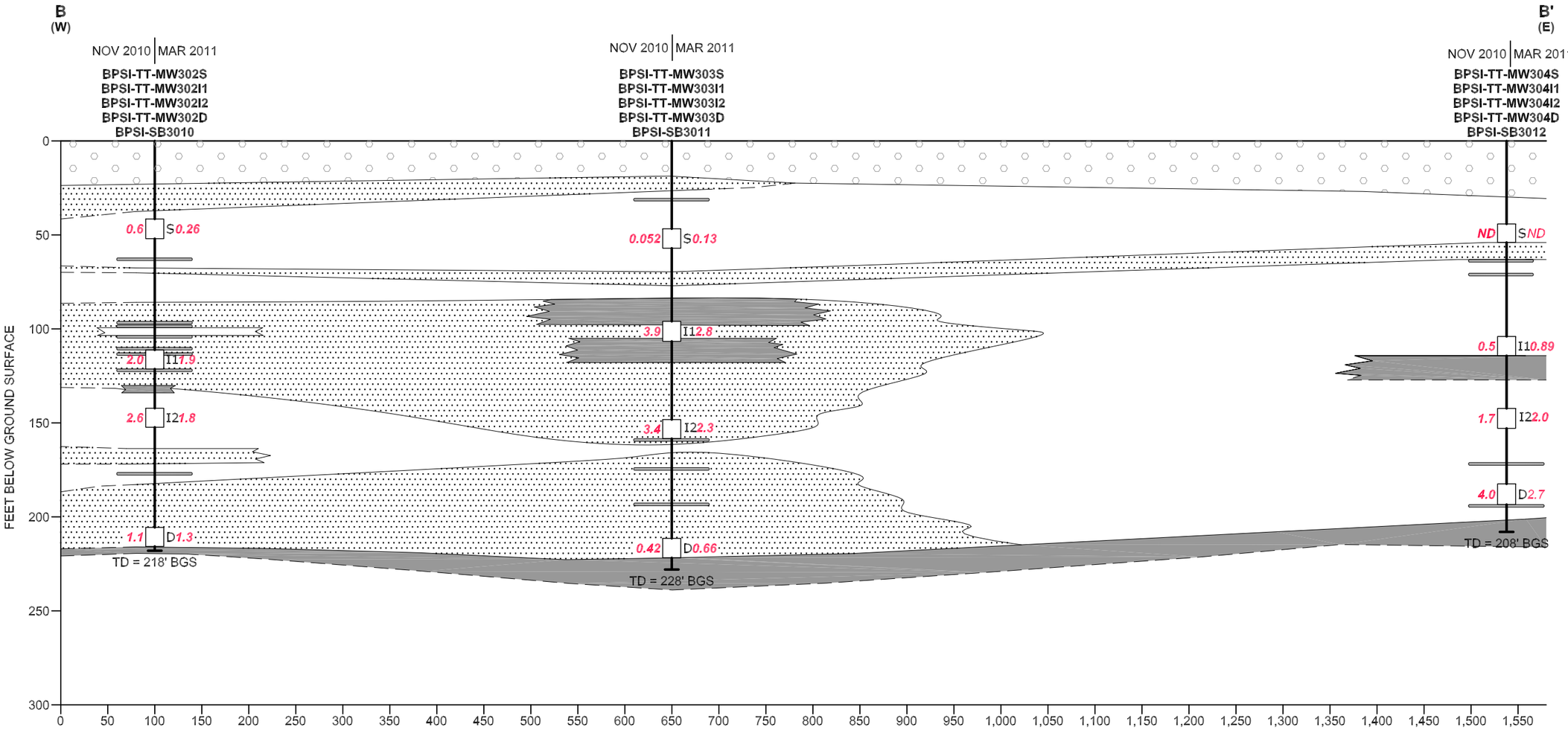


TETRA TECH

GEOLOGIC CROSS SECTION A – A'
SITE 1 – FORMER DRUM
MARSHALLING AREA
NAVAL WEAPONS INDUSTRIAL
RESERVE PLANT
BETHPAGE, NEW YORK

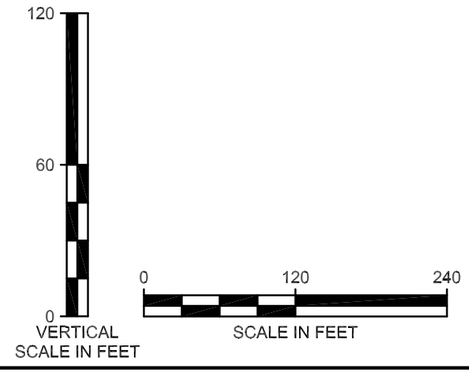
FILE	SCALE
112G01041GS19-1	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE 4-2	0 / 04/26/11

112G01041/0275/112G01041GS18-1.DWG 04/26/11 MKB



LEGEND

- SAND AND GRAVEL
- F-C SAND
- SILTY VF-F SAND
- CLAY, CLAYEY SILT, OR SANDY CLAY
- NOV 2010 | MAR 2011 — SAMPLING EVENTS
- **BPSI-SB3011** — SOIL BORING
- **BPSI-TT-MW303S** — MONITORING WELL
- (PROJECTED 50' NW) — PROJECTED DISTANCE AND DIRECTION TO CROSS SECTION LINE
- GROUND SURFACE (APPROXIMATED TO BE FLAT)
- CLAY LENS (FEW INCHES)
- *0.052* S *0.13* — MONITORING WELL SCREEN AND TOTAL PCBs (µg/L)
- TD = 250' BGS — TOTAL DEPTH (BGS) BELOW GROUND SURFACE



TETRA TECH

GEOLOGIC CROSS SECTION B – B'
SITE 1 – FORMER DRUM MARSHALLING AREA
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
BETHPAGE, NEW YORK

FILE	SCALE
112G01041GS18-1	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE 4-3	0 / 04/26/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 tag SB 041411 MMC 07082011

N

BPS1-SB3008
Soil PCBs (mg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1260
37 - 37.5	ND	0.072 J	ND
52 - 52.5	ND	0.23 J	ND

BPS1-SB3008

BPS1-SB3004

BPS1-SB3004
Soil PCBs (mg/kg)
ND

Plant No. 3

Site 1

BPS1-SB3005

BPS1-SB3005
Soil PCBs (mg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1260
43 - 43.5	0.018 J	ND	ND
54.5 - 55	160 J	ND	0.41 J
57.5 - 58	110 J	ND	0.8 J
94.5 - 95	ND	0.016 J	ND

BPS1-SB3006

BPS1-SB3006
Soil PCBs (mg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1260
32 - 32.5	ND	15 J	ND
53.5 - 55	ND	0.022 J	ND

BPS1-SB3009
Soil PCBs (mg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1260
27 - 27.5	ND	0.26 J	ND
36 - 36.5	ND	10 J	ND
51 - 51.5	ND	0.27 J	ND

BPS1-SB3009

BPS1-SB3007

BPS1-SB3007
Soil PCBs (mg/kg)
ND

BPS1-SB3011
Soil PCBs (mg/kg)
ND

BPS1-SB3012
Soil PCBs (mg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1260
203 - 203.5	0.019 J	ND	ND

BPS1-SB3010

BPS1-SB3011

BPS1-SB3012

Plant 17 South

BPS1-SB3010
Soil PCBs (mg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1260
0 - 8.0	0.023 J	ND	0.01 J

Notes:
PCB-polychlorinated biphenyls
ND-non detect

Legend

Soil Boring Location

0 50 100 200 Feet

TETRA TECH NUS, INC

SUBSURFACE SOIL
ANALYTICAL DETECTIONS
SOIL BORING LOCATIONS (AUGUST 2010)
BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-4	REV	DATE 7/8/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 tag 041111 MMC 07082011

N

BPS1-TT-MW301S (51 - 61 FT)

	Dec 2010	Mar 2011
VOCs	ND	ND
PCBs		
Aroclor-1242	**0.57 J**	**14 J**
Metals	NA	NA

BPS1-TT-MW301D

BPS1-TT-MW301I

Plant No. 3

Site 1

BPS1-HN-MW29I (120 - 130 FT)

	Dec 2010	Mar 2011
VOCs		
PCE	1.3	0.58 J
TCE	0.57 J	0.40 J
PCBs		
Aroclor-1242	**0.94 J**	**1.2 J**
Metals		
Hex Chrom	NA	1.1
Chromium	NA	2

BPS1-FW-MW02 (49 - 64 FT)

	Nov 2010	Nov 2010 (DUP)	Mar 2011
VOCs			
TCA	0.62 J	0.65 J	0.98 J
Freon 113	ND	ND	0.31 J
CIS-1,2-DCE	ND	ND	0.28 J
PCE	**29**	**28**	**41**
TCE	2.4	2.2	3.9
PCBs			
Aroclor-1242	0.3 J	0.29 J	0.49 J
Metals	NA	NA	NA

BPS1-FW-MW01 (48.5 - 63.5 FT)

	Nov 2010	Mar 2011
VOCs		
TCA	**7.9**	**23**
Freon 113	0.62 J	1.4
DCA	3.8	4.4
DCE	0.46 J	0.59 J
CIS-1,2-DCE	**32**	**110**
PCE	**180**	**550**
Trans 1,2-DCE	0.51 J	1
TCE	**15**	**41**
PCBs		
Aroclor-1242	**1 J**	**1 J**
Metals	NA	NA

BPS1-TT-MW302S (41 - 51 FT)

	Nov 2010	Mar 2011
VOCs		
PCE	0.32 J	ND
PCBs		
Aroclor-1242	**0.6 J**	0.26 J
Metals		
Hex Chrom	NA	ND
Chromium	NA	1.3

BPS1-HN-MW29I

BPS1-HN-MW29D

BPS1-TT-MW302I2

BPS1-TT-MW302S

BPS1-FW-MW03 (52 - 67 FT)

	Nov 2010	Mar 2011
VOCs		
TCA	0.29 J	0.39 J
CIS-1,2-DCE	0.34 J	0.45 J
PCE	**67**	**66**
TCE	3.8	3.8
PCBs		
Aroclor-1242	**2.8 J**	**2.1 J**
Metals	NA	NA

BPS1-TT-MW303D

BPS1-TT-MW303S

BPS1-TT-MW303I1

BPS1-TT-MW302D

BPS1-TT-MW302I1

BPS1-TT-MW303I2

BPS1-TT-MW304S

BPS1-TT-MW304I1

BPS1-TT-MW304I2

BPS1-TT-MW304D

Plant 17 South

BPS1-TT-MW304S (43 - 53 FT)

	Dec 2010	Mar 2011
VOCs	ND	ND
PCBs	ND	ND
Metals		
Hex Chrom	NA	ND
Chromium	NA	1.9

BPS1-TT-MW303S (46 - 56 FT)

	Nov 2010	Nov 2010 (DUP)	Mar 2011
VOCs			
PCE	1	1	0.97
TCE	ND	ND	0.76 J
PCBs			
Aroclor-1242	0.052 J	0.056 J	0.13 J
Metals			
Hex Chrom	NA	NA	ND
Chromium	NA	NA	5.3

Notes:
Results in micrograms per liter

NA-Not Analyzed
ND-Non Detect
VOC-volatile organic compound
PCE-tetrachloroethene
TCE-trichloroethene
PCB-polychlorinated biphenyl
CIS-1,2-DCE-CIS-1,2-dichloroethene
Trans-1,2-DCE-Trans-1,2-dichloroethene
DCA-1,1-dichloroethane
DCE-1,1-dichloroethene
Hex Chrom-hexavalent chromium

Legend

Monitoring Well Location

0 50 100 200 Feet

TETRA TECHNUS, INC

GROUNDWATER ANALYTICAL DETECTIONS NOV & DEC 2010 AND MARCH 2011 SHALLOW MONITORING WELLS BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-5	REV / DATE	7/8/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 tag INT 041211 MMC 07082011

N

Plant No. 3

Site 1

Plant 17 South

BPS1-TT-MW301I (130 - 140 FT)

	Dec 2010	Mar 2011
VOCs	ND	ND
PCBs		
Aroclor-1242	**0.69 J**	**0.73 J**
Metals		
Hex Chrom	NA	4.5
Chromium	NA	7.7

BPS1-TT-MW301D

BPS1-TT-MW301S

BPS1-HN-MW29I (120 - 130 FT)

	Dec 2010	Mar 2011
VOCs		
PCE	1.3	0.58 J
TCE	0.57 J	0.40 J
PCBs		
Aroclor-1242	**0.94 J**	**1.2 J**
Metals		
Hex Chrom	NA	1.1
Chromium	NA	2

BPS1-TT-MW304I1 (102 - 112 FT)

	Dec 2010	Mar 2011
VOCs		
TCA	**15**	**6.1**
Freon 113	0.44 J	ND
DCA	**6.9**	3.1
DCE	1	0.35 J
CIS-1,2-DCE	**85**	**35**
PCE	**93**	**54**
Trans-1,2-DCE	0.7 J	0.26 J
TCE	**27**	**11**
PCBs		
Aroclor-1242	**0.5 J**	**0.89 J**
Metals		
Hex Chrom	NA	58
Chromium	NA	55

BPS1-TT-MW302I2 (140 - 150 FT)

	Nov 2010	Mar 2011
VOCs		
TCE	0.88 J	1.1 J
PCBs		
Aroclor-1242	**2.6 J**	**1.8 J**
Metals	NA	NA

BPS1-TT-MW303I2 (146 - 156 FT)

	Nov 2010	Mar 2011
VOCs		
PCE	2.1	1.5
TCE	2.6	1.9
Freon 11	0.23 J	ND
PCBs		
Aroclor-1242	**3.4 J**	**2.3 J**
Metals	NA	NA

BPS1-FW-MW03

BPS1-FW-MW01

BPS1-FW-MW02

BPS1-HN-MW29D

BPS1-TT-MW302I1 (110 - 120 FT)

	Nov 2010	Mar 2011
VOCs		
TCA	ND	0.19 J
PCE	ND	0.19 J
TCE	0.55 J	0.76 J
PCBs		
Aroclor-1242	**2 J**	**1.9 J**
Metals	NA	NA

BPS1-TT-MW302S

BPS1-TT-MW303D

BPS1-TT-MW303S

BPS1-TT-MW302I1

BPS1-TT-MW302D

BPS1-TT-MW304I2 (140 - 150 FT)

	Nov 2010	Mar 2011
VOCs		
TCA	0.64 J	0.31 J
DCA	0.51 J	ND
CIS-1,2-DCE	**8.8**	3.1
PCE	**17**	4.8
TCE	**5.4**	1.4
PCBs		
Aroclor-1242	**1.7 J**	**2.6 J**
Metals		
Hex Chrom	NA	166
Chromium	NA	**180**

BPS1-TT-MW304S

BPS1-TT-MW304D

BPS1-TT-MW303I1 (95 - 105 FT)

	Nov 2010	Mar 2011
VOCs		
DCA	1.7	2.4
DCE	2	2.7
CIS-1,2-DCE	1.9	3.4
Freon 12	0.28 J	ND
PCE	**79**	**120**
TCE	**17**	**25**
Freon 11	0.3 J	ND
PCBs		
Aroclor-1242	**3.9 J**	**2.8 J**
Metals	NA	NA

Notes:
Results in micrograms per liter

NA-Not Analyzed
ND-Non Detect
VOC-volatile organic compound
PCE-tetrachloroethene
TCE-trichloroethene
PCB-polychlorinated biphenyl
CIS-1,2-DCE-CIS-1,2-dichloroethene
Trans-1,2-DCE-Trans-1,2-dichloroethene
DCA-dichloroethane
DCE-dichloroethene
Hex Chrom-hexavalent chromium

Legend

Monitoring Well Location

0 50 100 200 Feet

TETRA TECHNUS, INC

GROUNDWATER ANALYTICAL DETECTIONS NOV & DEC 2010 AND MARCH 2011 INTERMEDIATE MONITORING WELLS BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-6	REV	DATE 7/8/11

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb SITE1 tag DEEP 041211 MMC 07082011

N

BPS1-TT-MW301D (210 - 220 FT)

	Dec 2010	Mar 2011	Mar 2011 (DUP)
VOCs			
TCA	0.45 J	0.34 J	0.37 J
CIS-1,2-DCE	0.57 J	ND	ND
PCE	0.5 J	0.24 J	0.25 J
TCE	2.1	1.4	1.4
PCBs			
Aroclor-1242	**0.79 J**	**0.82 J**	**0.87 J**
Metals	NA	NA	NA

BPS1-TT-MW301I

BPS1-TT-MW301S

Plant No. 3

Site 1

BPS1-TT-MW302D (203 - 213 FT)

	Dec 2010	Mar 2011
VOCs		
PCE	ND	0.22 J
Toluene	0.25 J	0.17 J
TCE	1	1.4
PCBs		
Aroclor-1242	**1.1 J**	**1.3 J**
Metals	NA	NA

BPS1-TT-MW303D (208 - 218 FT)

	Nov 2010	Mar 2011
VOCs		
TCE	0.45 J	0.40 J
PCBs		
Aroclor-1242	0.42 J	**0.66 J**
Metals	NA	NA

BPS1-FW-MW02

BPS1-FW-MW01

BPS1-FW-MW03

BPS1-HN-MW29D

BPS1-HN-MW29I

BPS1-TT-MW302I2

BPS1-TT-MW302S

BPS1-TT-MW304S

BPS1-TT-MW303S

BPS1-TT-MW302I1

Plant 17 South

BPS1-TT-MW303I1

BPS1-TT-MW303I2

BPS1-TT-MW304I1

BPS1-TT-MW304I2

Notes:
Results in micrograms per liter

NA-Not Analyzed
ND-Non Detect
VOC-volatile organic compound
PCE-tetrachlroethene
TCE-trichloroethene
PCB-polychlorinated biphenyl
CIS-1,2-DCE-CIS-1,2-dichloroethene
Trans-1,2-DCE-Trans-1,2-dichloroethene
DCA-dichloroethane
DCE-dichloroethene
Hex Chrom-hexavalent chromium

BPS1-TT-MW304D (180 -190 FT)

	Dec 2010	Mar 2011	Mar 2011 (DUP)
VOCs			
PCE	0.5 J	ND	ND
PCBs			
Aroclor-1242	**4 J**	**2.7 J**	**2.9 J**
Metals			
Hex Chrom	NA	ND	ND
Chromium	NA	1	9.5

Legend

Monitoring Well Location

0 50 100 200 Feet

TETRA TECH NUS, INC

GROUNDWATER ANALYTICAL DETECTIONS NOV & DEC 2010 AND MARCH 2011 DEEP MONITORING WELLS BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-7	REV / DATE	7/8/11

APPENDICES

APPENDIX A

FIELD FORMS, LOGSHEETS, AND DOCUMENTATION

SOIL BORING LOGS

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Calverton
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3004
DATE: 7-13-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1320	S1	1					DK Brn	Silty Sand and Gravel (some wood frags)		moist	0	0	0	0
		2												
		3					Brn	F/C Sand with F Gravel		moist	0	0	0	0
		4												
		5									0	0	0	0
		6				Hard	Wht Grg	Concrete debris and Frags		dry to damp				
		7		6.0'							0	0	0	0
1325		8		8.0'										
1332	S2	9				Hard		No sample collected						
1512		10												
		11												
		12				Hard		Same as above based on drilling only						
		13												
		14												
		15				Hard								
		16												
		17												
1542		18												
	S3	19					Brn	F/C Sand and Gravel		moist	0	0	0	0
		20												
		21									0	0	0	0
		22								moist				
		23									0	0	0	0
		24												
		25					Brn	Same as above		moist	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 4"X6" continuous core. Rota Sonic drilling
10' sample cores from 0' to 58' BGS.
20' Sample cores from 58' to Total depth

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3004
DATE: 7-13-10
GEOLOGIST: Vince Shickora
DRILLER: J. Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	26						F/C Sand and Gravel		moist	0	0	0	0
7/13/10	27		6.5'			Org	↓						
1856	28		10.0'	④		Brn Tan	F/M Sand Trace silt and C Sand		moist	0	0	0	0
0758 S-3	29						↓		Sample BPSI-SB3004 27.5-28.5				
7/14/10	30						↓						
	31					Red Brn	F/C Sand with F Gravel Trace Silt and C Gravel		very moist	0	0	0	0
	32												
	33									0	0	0	0
	34			⑤					Took SB-3004 - 34.5-34.5				
	35						(Same)			0	0	0	0
	36												
	37		6.5'	⑥			↓		Took BPSI-SB3004-36.5-37.5	0	0	0	0
0814	38		10.0'			Red Brn	Silty F/M Sand Little C Sand		very moist				
0820 S-4	39						Trace F Gravel		rust stains	0	0	0	0
	40					Tan Brn	Silty F/C Sand and F Gravel - some		very moist				
	41					Gry	clay lenses			0	0	0	0
	42			⑦		Brn Tan	F/M Sand - some clay lenses - Trace F Gravel (micaceous) This		very moist				
	43								BPSI-SB3004-42.0-42.5	0	0	0	0
	44												
	45						↓			0	0	0	0
	46					Gry Tan	VFG Sand - some Silt Trace M Sand and C Sand		very moist				
	47		6.5'	⑧					BPSI-SB3004-47.0-47.5	0	0	0	0
0832	48		10.0'										
S-5	49			⑨		Gry	F Sand - little M Sand Trace silt		very moist	0	0	0	0
	50					Tan			BPSI-SB3004-49.0-49.5				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic
BORING No.: BPS1-SB3004
DATE: 7-14-10
GEOLOGIST: Vince Shickora
DRILLER: T. Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-5	51					Gry Tan	F Sand - little M Sand Trace Silt (micaceous)		very moist	0	0	0	0
		52												
		53									0	0	0	0
		54								wet at ~54.5'				
		55			④ ▽			F/M Sand - little C Sand Trace Silt	*	BPS1-SB004-54.0-54.5	0	0	0	0
		56												
		57									0	0	0	0
0855	▽	58												
0905	S-6	59					Brn Red	Clayey Silt and F Sand - little M Sand		wet	0	0	0	0
		60					Gry Brn	F/M Sand - little C Sand Trace Silt (micaceous)						
		61			⑤					⑤ BPS1-SB3004-61.0-61.5	0	0	0	0
		62												
		63					Gry Brn	Silty F/M Sand Trace C Sand		wet	0	0	0	0
		64					Org							
		65			⑥					⑥ BPS1-SB3004-64.5-65.0	0	0	0	0
		66					Pink Red	Clayey Silt and F Sand (mottled) Trace M Sand		wet				
		67			VAS		Gry Tan				0	0	0	0
		68			⑦					⑦ BPS1-SB3004-68.0-68.5				
		69									0	0	0	0
		70						(less clay)		wet				
		71			⑧		Org Brn	F/C Sand Trace Silt		* BPS1-SB3004-71.0-71.5	0	0	0	0
		72												
		73					Gry	Silty F Sand Trace clay and M Sand		wet	0	0	0	0
		74												
	▽	75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area

Remarks: (See page 1)

Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3004
DATE: 7-14-10
GEOLOGIST: Vince Shickora
DRILLER: J. Keiter

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		76					Gry	Silty VF Sand (Trace M Sand)		wet	0	0	0	0
		77		18.5'				Same						
1027	↓	78		20.0'	⑧					⑧ BPSI-SB3004-78.0-78.6	0	0	0	0
1058	S-7	79												
		80						(Same)			0	0	0	0
		81								wet				
		82			⑨					⑨ BPSI-SB3004-82.0-82.5	0	0	0	0
		83						Same as						
		84					Brn Gry	above		wet	0	0	0	0
		85					Brn Gry	F Sand - some silt Trace M Sand						
		86			⑩						0	0	0	0
		87								⑩ BPSI-SB3004-86.0-86.5				
		88									0	0	0	0
		89												
		90					Brn Gry			wet	0	0	0	0
		91			⑪		Gry	F/M Sand - Trace silt		⑪ BPSI-SB3004-91.0-91.5				
		92									0	0	0	0
		93					Brn Gry	Silty F/M Sand Trace clay		wet	-		-	
		94									0	0	0	0
		95					Org Brn	F/M Sand Trace silt						
		96			(VBS) ⑫		Red Brn				0	0	0	0
		97		20'	⑬					wet				
1125	↓	98		20'			Org Brn			⑬ BPSI-SB3004-97.0-97.5				
	S-8	99												
	↓	100						(Same)						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NAVIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3004
DATE: 7-14-10
GEOLOGIST: Vince Shickora
DRILLER: J. Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	101			⊛		Brn Gry	VF/F Sand - little silt Trace M Sand + clay (Micaceous)		wet	0	0	0	0
	102								⊛ BPSI-SB3004-101.0101.5				
	103									0	0	0	0
	104												
	105								wet	0	0	0	0
	106			⊛		Tan Gry	Same (Some silt)						
	107								⊛ BPSI-SB3004-106.0106.5	0	0	0	0
	108												
	109									0	0	0	0
	110						Same		wet				
	111									0	0	0	0
	112			⊛		Tan Gry			⊛ BPSI-SB3004-111.0111.5				
	113									0	0	0	0
	114												
	115						Same (Some silt)		wet	0	0	0	0
	116			⊛									
	117		18.5'			Tan Gry			⊛ BPSI-SB3004-116.0116.5	0	0	0	0
1256	118		20.0'							--		--	
5-9	119												
	120					Tan Gry	Same (Some silt)		wet				
	121												
	122												
	123												
	124								⊛ BPSI-SB3004-120.0130.0				
	125			⊛		Tan Gry	Same		wet				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWTRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3004
DATE: 7-14-10
GEOLOGIST: Vince Shickora
DRILLER: J. Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		126					Tan Gry	VF/F Sand - Some Silt Trace M Sand + clay (micaceous)		wet	0	0	0	0
		127												
		128									0	0	0	0
		129												
		130					Tan Gry	Same		wet	0	0	0	0
		131												
		132						(some clay)			0	0	0	0
		133												
		134					Brn Org	VF/F Sand - little to Trace Silt (micaceous)		wet	0	0	0	0
		135			④					⑤ BPS1-SB3004-130.0-150.0				
		136					Brn Red	(less silt)			0	0	0	0
		137		19.5'			Red							
		138		20.0'			Red Gry				0	0	0	0
1348	S/D	139					Red	Silty VF/F Sand		wet				
		140					Gry				0	0	0	0
		141												
		142									0	0	0	0
		143			④		Org Brn	VF/F Sand - little to Trace Silt.		wet	-		-	
		144								⑤ BPS1-SB3004-140.0-150.0	0	0	0	0
		145												
		146					Brn Red	F/M Sand - Trace Silt (micaceous)		wet	0	0	0	0
		147												
		148									0	0	0	0
		149						(few very thin clay lenses)						
		150					Brn Red	VF/F Sand - Trace Silt		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see Page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Rotasonic

BORING No.: BPSI-SB3004
DATE: 7-14-10
GEOLOGIST: Vince Shickora
DRILLER: J. Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		151					Brn Red	VF/F Sand - Trace silt (micaceous)		wet	0	0	0	0
		152						↓						
		153						↓			0	0	0	0
		154			⊕			↓		⊕ BPSI-SB3004-154.0 154.5				
		155					Brn Gry	Silty VF Sand - some clay (micaceous)			0	0	0	0
		156			⊕ FAS			↓ (few thin clay lenses)		⊕ BPSI-SB3004-150.0 160.0				
		157		18.5'				↓			0	0	0	0
1528	↓	158		20.0'			org Brn	F/M Sand - Trace silt (micaceous)		wet				
	S-11	159						↓			0	0	0	0
		160					Gry Tan	Clayey Silt and VF Sand (micaceous)						
		161					Red			wet	0	0	0	0
		162					Red Brn	VF/F Sand - some silt (micaceous)						
		163						↓			0	0	0	0
		164					org Brn	(less silt)						
		165			⊕			↓		wet	0	0	0	0
		166						↓		⊕ BPSI-SB3004-160.0 170.0				
		167					org Brn	Silty VF Sand - some clay (mottled)			0	0	0	0
		168					Gry	↓			-		-	
		169						↓			0	0	0	0
		170						(same)		wet				
		171						↓			0	0	0	0
		172						↓						
		173						↓			0	0	0	0
		174						↓		⊕ BPSI-SB3004-170.0 180.0				
	↓	175			⊕			↓ (less clay)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Rotosonic

BORING No.: BPSI-SB3004
DATE: 7-14-10
GEOLOGIST: Vince Shickora
DRILLER: J. Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		176						↓			0	0	0	0
		177		19.5'			Red Gry	VF Sand - Some Silt (micaceous)		wet				
1616	↓	178		20.0'				↓			0	0	0	0
	S-12	179												
		180					Red Gry	↓		wet	0	0	0	0
		181					Red	VF/F Sand - Trace silt and M Sand (micaceous)						
		182						↓			0	0	0	0
		183					Org Tan							
		184									0	0	0	0
		185					Org Tan	(Same)		wet				
		186						↓			0	0	0	0
		187					Org Brn	F/M Sand - Trace silt						
		188									0	0	0	0
		189					Gry Tan	VF/F Sand - Trace silt (micaceous)						
		190						↓		wet	0	0	0	0
		191					Tan	↓						
		192					Red Gry	Silty VF/F Sand some clay (mottled)			0	0	0	0
		193						(micaceous) ↓						
		194						(little clay)			0	0	0	0
↑		195								wet				
		196					Tan Red				0	0	0	0
7/14/10		197		19.0'			Gry	(little clay)						
		198		20.0'							0	0	0	0
1720	↓	199												
0918	S-13	200						(see next page)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1.)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Rotosonic

BORING No.: BPS1-SB3004
DATE: 7-15-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keiter

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
7/15/10 Time	201					Tan Gry	VF/F Sand - little silt (micaceous)		wet	0	0	0	0
	202					Red							
	203									0	0	0	0
	204					Red Gry							
	205			*			Same		wet	0	0	0	0
	206								* BPS1-SB3004-200.0-206				
	207					Org Tan				0	0	0	0
	208					Gry							
	209									0	0	0	0
	210					Org Tan	Same		wet				
	211					Gry				0	0	0	0
	212												
	213					Tan Gry				0	0	0	0
	214												
	215			*		Red Tan	Same		wet	0	0	0	0
	216					Gry			* BPS1-SB3004-210.0-220.0				
	217		18.5'							0	0	0	0
1006	218		20.0'			Tan Gry							
S-14	219									0	0	0	0
	220					Red Gry	Same (less silt)		wet				
	221									0	0	0	0
	222					Org Brn							
	223									0	0	0	0
	224								wet				
	225			*		Org Brn	Same		* BPS1-SB3004-120.0-130.0	0	0	0	0

* When rock coring, enter rock brokeness.

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Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Rotosonic

BORING No.: BPSI-SB3004
DATE: 7-15-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	226						VF/F Sand - little to Trace Silt (micaceous)		wet	0	0	0	0
	227												
	228									0	0	0	0
	229												
	230						Same		wet	0	0	0	0
	231						(Trace silt)						
	232									0	0	0	0
	233												
	234						Same			0	0	0	0
	235						(Trace Silt)		wet				
	236			⊛		DK Brn	F/M Sand - Some C Sand and Gravel - Trace Silt		⊛ BPSI-SB004-235.0 235.5	0	0	0	0
	237		19.0			org Brn	Silty F/M Sand - Some clay Trace C Sand + F Gravel						
1120	238		20.0			org Brn	VF/F Sand - Trace Silt and M Sand			0	0	0	0
5-15	239												
	240					Tan Brn	Same		wet	0	0	0	0
	241						(Few thin clay stringers)						
	242					org Brn				0	0	0	0
	243									-		-	
	244					org Tan				0	0	0	0
	245			⊛			Same		wet				
	246						(micaceous)		* BPSI-SB3004-240.0 250.0	0	0	0	0
	247					org Tan							
	248									0	0	0	0
	249						(micaceous)						
1240	250			EOB		org Tan	Same		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3005
DATE: 7-16-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0948		1					Brn Blk	Silty Sand and Gravel (Fill material)		moist	0	0	0	0
		2						4" Core (No Sample Core collected)						
		3									10	0	10	0
		4												
		5					Blk Brn	(Same		damp to moist	19	0	19	0
		6												
		7												
1014		8						(Same)		moist	25	0	25	0
	S-1	9					Blk Brn	F/C Sand and F/M Gravel						
		10									3.5	0	8	0
		11								wet (From drill water)				
		12												
		13								wet (From drill water)	1.4	0	6.0	0
		14					Brn							
		15						(Same)		moist	0.8	0	1.5	0
		16												
		17		7.0'			Brn Tan	Silty F/C Sand with some F Gravel Trace C Gravel		damp	0	0	0	0
1027		18		10.0'										
	S-2	19									0	0	0	0
		20						(Same)		wet (From drill water)				
		21									0	0	0	0
		22												
		23									0	0	0	0
		24												
		25						(Same)			0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 4" X 8" (oversize) Sonic From 0' to 70' BGS (Cont. Cores)
4" X 6" Sonic (Cont. Cores) From 70' to Total depth

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3005
DATE: 7-16-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		26					Tan Brn	F/C Sand - Some F Gravel Trace Silt M Gravel		moist	0	0	0	0
		27		7.6'										
1045		28		10.8'			Tan Brn	F Sand - little M/C Sand Trace Silt		moist	0	0	0	0
	S-3	29								BPSI-SB3005-27.5 28.0				
		30					Brn	F/C Sand and F/M Gravel little silt			0.1	0	0	0
		31								wet (from drill water)				
		32									0.2	0	0	0
		33					Org Brn							
		34								moist	0.4	0	0	0
		35						(same)		BPSI-SB3005-34.0 34.5				
		36									0.5	0	0	0
		37		9.1			Tan Brn	F/M Sand - Some C Sand and F Gravel Trace Silt		moist				
1104		38		10.0						BPSI-SB3005-37.5 38.0	1.8	0	0	0
	S-4	39												
		40									0.7	0	0	0
		41					Org Brn	Silty F Sand - Some clay Trace M/C Sand + Gravel		moist				
		42					Gry				0.8	0	0	0
		43								BPSI-SB3005-43.0 43.5	-		-	
		44					Gry	F/M Sand - Trace Silt			0.4	0	0	0
		45					Tan	and C Sand						
		46								moist	0.7	0	0	0
		47					Org Tan							
		48									0.9	0	0	0
		49					Gry Tan			BPSI-SB3005-49.0 49.5				
		50						(same)			3.2	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3005
DATE: 7-16-10
GEOLOGIST: Vice, Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		51					Gry Tan			Very moist	7.5	0	0	0
		52												
		53									21.4	0	0	0
		54					Org Tan							
		55						(Same as above)		wet at ~55' BGS	38.2	0	0	0
		56								BPSI-SB3005-54.5 55.0				
		57		16.5'			Gry Tan	M Sand - Some F Sand and Trace Silt		oil/Solvent Type odor observed	37.1	0	0	0
1152		58		20.0'						BPSI-SB3005-57.5 58.0				
	S-5	59					Gry Brn	F Sand - Some M Sand Trace Silt + pebbles		wet	3.0	0	0	0
		60												
		61								BPSI-SB3005-61.0 61.5	1.5	0	0	0
		62												
		63						(same)		wet	1.1	0	0	0
		64												
		65						(same)		wet	1.0	0	0	0
		66					Gry Brn Red	Silty F Sand - Some clay - Trace M Sand (mottled) (micaceous)		BPSI-SB3005-66.0 66.5				
		67									0.9	0	0	0
		68												
		69									0.9	0	0	0
		70						(same)						
		71									0.4	0	0	0
		72								BPSI-SB3005-72.0 72.5				
		73					Tan Gry	F/M Sand - little C Sand Trace Silt		wet	0.5	0	0	0
		74												
		75						(see next page			0.4	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3005
DATE: 7-16-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		76					Brn Gry	Silty VF Sand - little clay - Trace M Sand (micaceous)		wet	0	0	0	0
		77		16.3'										
1410	↓	78		20.0'	*					* BPSI-SB3005-77.5 78.0	0	0	0	0
	S-6	79					Gry	Silt - little clay Trace VF Sand (micaceous)		wet				
		80									0	0	0	0
		81			*		Gry Blk	VF/F Sand - little silt		* BPSI-SB3005-81.0 81.5				
		82					Gry				0	0	0	0
		83					Brn Gry	F Sand - Trace silt and M Sand (micaceous)		wet				
		84									0	0	0	0
		85					org Brn	(same)						
		86			*		Gry			* BPSI-SB3005-86.0 86.5	0	0	0	0
		87												
		88									0	0	0	0
		89					org Brn							
		90						(same)		wet	0	0	0	0
		91												
		92					org Brn				0	0	0	0
		93												
		94			*		Red	VF/F Sand - some silt Trace F pebbles (micaceous)		wet	0	0	0	0
		95								* BPSI-SB3005-94.5 95.0				
		96					Red	Silty VF Sand		wet	0	0	0	0
		97		18.5'	*		Brn Gry	(micaceous) (mottled) Trace F Sand		* BPSI-SB3005-97.5 98.0				
1435	↓	98		20.0'							0	0	0	0
	S-7	99					Red							
		100					Brn Gry	(same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3005
DATE: 7-16-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		101					Red Brn Gry	(same)		wet	0	0	0	0
		102			⊛									
		103								⊛ BPSI-SB3005-102.0 102.5	0	0	0	0
		104					Red							
		105					Brn Gry	(same)		wet	0	0	0	0
		106			⊛		Red Brn	VF/F Sand - Trace MSand and silt (micaceous)		⊛ BPSI-SB3005-105.5 106.0				
		107									0	0	0	0
		108					Red Gry	VF/F Sand with some silt (micaceous)		wet				
		109					Tan				0	0	0	0
		110												
		111			⊛			(same)			0	0	0	0
		112								⊛ BPSI-SB3005-111.0 111.5				
		113						(same)			0	0	0	0
		114					Tan Gry	VF/F Sand - Trace silt (micaceous)						
		115									0	0	0	0
		116												
		117		18.4'	⊛						0	0	0	0
1512	↓	118		20.0'			Tan Gry			⊛ BPSI-SB3005-117.0 117.5	-		-	
	S-8	119					Red				0	0	0	0
		120						(same)		wet				
		121					Tan Gry				0	0	0	0
		122												
		123					Tan				0	0	0	0
		124					Gry Red			wet				
	↓	125		⊛				(same)		⊛ BPSI-SB3005-125.0 130.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic
BORING No.: BPSI-SB3005
DATE: 7-16-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		126					Org Brn	VF/F Sand - little silt (micaceous)		wet	0	0	0	0
		127					Red							
		128									0	0	0	0
		129					Tan Gry							
		130						(same)		wet	0	0	0	0
		131												
		132					Gry Tan				0	0	0	0
		133												
		134			④					wet	0	0	0	0
		135					Gry Tan	(same) (less silt)		⑧ BPSI-SB3005-130.0145.0				
		136									0	0	0	0
7/16/10		137		17.9'			Red							
1558		138		20.0'			Gry Tan			wet	0	0	0	0
0805	S-9	139												
7/17/10		140					Org Brn	(same)			0	0	0	0
		141					Gry			wet				
		142									0	0	0	0
		143					Tan				0.3	0	0	0
		144					Brn Gry			wet	0.4	0	0	0
		145			④			(same)		⑧ BPSI-SB3005-145.0145.5	0.6	0	0	0
		146			④		Brn Gry	Silty clay (micaceous) (mottled)			0	0	0	0
		147								* BPSI-SB3005-140@150.0	0	0	0	0
		148												
		149					Brn Tan	VF/F Sand - Trace silt and M Sand		wet	0	0	0	0
		150												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3605
DATE: 7-17-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		151					Brn Tan	VF/F Sand - Trace silt and M Sand (micaceous)		wet	0	0	0	0
		152												
		153									0	0	0	0
		154												
		155					Brn Tan	(same)		(*) BPSI-3605-150.0 160.0	0	0	0	0
		156												
		157		20.0'							0	0	0	0
0835		158		20.0'			Brn Tan			wet				
	S-10	159									0	0	0	0
		160						(same)		wet				
		161					Brn Tan				0	0	0	0
		162												
		163									0	0	0	0
		164					Brn Tan							
		165						(same)		wet	0	0	0	0
		166								(*) BPSI-SB3605-160.0 170.0				
		167									0	0	0	0
		168					Brn Tan							
		169									0	0	0	0
		170						(same)		wet				
		171									0	0	0	0
		172					Brn Tan							
		173					org Brn	Silty VF/F Sand (micaceous) Trace clay		wet	0	0	0	0
		174					Gry							
		175								(*) BPSI-SB3605-170.0 180.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3005
DATE: 7-17-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		176					Red Brn	Silty VF/F Sand (micaceous) Trace clay		wet	0	0	0	0
		177		19.8'			Gry	↓						
0918	↓	178		20.0'				↓ (less silt)			0	0	0	0
	S-11	179					Brn							
		180					Tan Gry	VF/F Sand - little to Trace silt (micaceous)		wet	0	0	0	0
		181						↓						
		182									0	0	0	0
		183						↓ (same)		wet				
		184					Brn Gry	Silty clay - Trace VF Sand (micaceous)			0	0	0	0
		185			⊛			(mottled) ↓						
		186					Tan	VF/F Sand - Some silt		⊛ BPS1-SB3005-180.0-190.0	0	0	0	0
		187					Gry	↓ (micaceous)						
		188					Red				0	0	0	0
		189					Tan Gry							
		190						↓ (same)		wet	0	0	0	0
		191												
		192					Red Tan				0	0	0	0
		193					Gry	↓						
		194					Tan Brn	F Sand - Some M Sand Trace silt		wet	0	0	0	0
		195			⊛		Red	VF/F Sand - Some silt						
		196					Brn Gry	(micaceous) ↓		⊛ BPS1-SB3005-190.0-200.0	0	0	0	0
		197		20.0'				↓						
1015	↓	198		20.0'			Org Brn	↓ (Few thin clay lenses)			0	0	0	0
	S-12	199					Gry	↓						
	↓	200						↓ (Same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3005
DATE: 7-17-10
GEOLOGIST: Vince Shickosa
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		201					Brn Gry	VF/F Sand - some silt (micaceous)		wet	0	0	0	0
		202												
		203									0	0	0	0
		204					Tan Gry							
		205			①			(same)		wet	0	0	0	0
		206								② BPSI-SB3005-200.0210.0				
		207					Brn				0	0	0	0
		208					Tan Gry							
		209									0	0	0	0
		210						(same)		wet				
		211									0	0	0	0
		212					Red Brn							
		213					Gry Org Brn	Silty VF/F Sand (mottled) (micaceous)		wet	0	0	0	0
		214												
		215			①		Red	VF/F Sand - little to			0	0	0	0
		216					Brn Gry	Trace silt (micaceous)		② BPSI-SB3005-210.0220.0				
		217									0	0	0	0
1115	↓	218									-		-	
	S-13	219					Tan Gry				0	0	0	0
		220						(same		wet				
		221									0	0	0	0
		222					Tan Gry							
		223									0	0	0	0
		224								② BPSI-SB3005-220.0230.0				
	↓	225			①		Tan Gry	↓ (same)		(wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see Page 1)

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3005
DATE: 7-17-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		226					Tan Gry	VF/F Sand - little to Trace silt (micaceous)		wet	0	0	0	0
		227												
		228					Red Brn				0.1	0	0	0
		229												
		230						(same)		wet	0.1	0	0	0
		231					Brn Tan				0.2	0	0	0
		232			*					* BPSI-SB3005-232.5 233.0	0.4	0	0	0
		233					Gry	Clay - some silt		moist to wet	0.1	0	0	0
		234									0.0	0	0	0
		235			*		Red Brn	F Sand - Trace silt and M Sand (micaceous)		wet				
		236					org			* BPSI-SB3005-238.0240.0	0	0	0	0
		237		20.0'			Brn Gry	Silty VF/F Sand with little Clay (mottled)		wet				
1205	↓	238		20.0'				(micaceous) → (clay)			0	0	0	0
	S-14	239					Brn	VF/F Sand - Trace silt and M Sand		wet				
		240					Tan	(micaceous)			0	0	0	0
		241												
		242					Brn Tan				0	0	0	0
		243								wet	-		-	
		244									0	0	0	0
		245			*			(same)		* BPSI-SB3005-240.0250.0				
		246					Brn Tan				0	0	0	0
		247												
		248									0	0	0	0
		249		12.0'			Brn Tan			wet				
1507	↓	250		12.0'	EOB			↓ (same)			0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3006
DATE: 7-26-10 / 7-27-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1640	S-1	1					Brn DK	Silty Sand and Gravel (Fill material)		damp to dry	0	0	0	0
		2					Brn							
		3									0	0	0	0
		4					Brn							
↑		5					Brn DK	(Same		damp to moist	0	0	0	0
7/26/10		6												
		7		7.7'							0	0	0	0
1647	↓	8		8.0'										
	S-2	9					Tan Brn	F/C Sand with F/M gravel		moist	0	0	0	0
0755		10												
7/27/10		11									0	0	0	0
		12												
		13									0	0	0	0
		14												
		15					Tan Brn	(Same)		moist	0	0	0	0
		16												
		17		7.8'			Brn				0	0	0	0
0828	↓	18		10.0'			Gry	(Same)		moist				
	S-3	19									0.1	0	0	0
		20												
		21									0.1	0	0	0
		22					Brn Tan	(Same)		moist				
		23									0.2	0	0	0
		24					Tan	VF/F Sand - Trace silt and F Pebbles		moist				
	↓	25						(see next page)			0.2	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read. → 68'

Drilling Area Background (ppm): 0

Remarks: 4"X8" (overreaming) Steel From 0' to ~~70~~ (VAS) BGS
4"X6" Steel From ~~73~~ to Total depth

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3006
DATE: 7-27-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		26					Org Brn	VF/F Sand - Some C sand and Trace F pebbles - moist			0	0	0	6
		27		8.1'				M Sand		BPS1-SB3006-27.0 27.5				
0849		28		10.0'							0.2	0	0	0
	S-4	29					Org Brn	F/M Sand - Some C sand Trace silt - F pebbles		moist	0	0	0	6
		30												
		31									0	0	0	6
		32								BPS1-SB3006-32.0 32.5				
		33					Brn Gry	Clayey Silt - Trace F sand		moist	0	0	0	0
		34					Org Brn	F Sand - little C sand Trace F pebbles		moist	0	0	0	0
		35												
		36												
		37		9.7'			Red Brn	F/C Sand - some F/M graded		BPS1-SB3006-36.5 37.0 moist	0	0	0	6
0937		38		10.0'			Gry	Silt - Trace F Sand		dry to damp				
	S-5	39					Tan Gry	VF/F Sand - Trace M sand (micaceous)		moist	0	0	0	0
		40												
		41									0	0	0	6
		42								BPS1-SB3006-42.0 42.5				
		43					Tan Brn				0	0	0	0
		44						(Same)		very moist				
		45									0	0	0	0
		46					Tan Brn							
		47		9.7'			Gry Brn	(Few thin silt - clay lenses)		BPS1-SB3006-46.5 47.0	0	0	0	0
1009		48		10.0'				(Same)		very moist				
	S-6	49									0.2	0	0	0
		50						(See next page)		very moist				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3006
DATE: 7-27-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		51					Tan Brn	F/C Sand - Trace silt and F pebbles		very moist	1.3	0	0	0
		52									1.7	0	0	0
		53			*		org Brn	M Sand - little C Sand Trace F sand and silt		* BPSI-SB3006-53.053.5	2.1	0	0	0
		54						↓		wet @ 54' BGS	1.8	0	0	0
		55			▽			↓			1.1	0	0	0
		56					org Brn	F/C Sand - Trace silt and F pebbles		wet	0.8	0	0	0
		57		9.7'	*					* BPSI-SB3006-56.557.0	0.7	0	0	0
1040	↓	58		10.0'			Brn Tan	F/M Sand - little C Sand			0.2	0	0	0
	S-7	59						(No recovery)		(No recovery)				
		60											0	0
		61												
		62											0	0
		63												
		64											0	0
		65												
		66											0	0
		67						(No Recovery)		* BPSI-SB3006-67.067.5				
		68			*		Brn Tan	VF/F Sand - Trace M sand and silt.		wet	0	0	0	0
		69												
		70					Gry Tan	F/M Sand - little C Sand Trace silt		wet	0	0	0	0
		71												
		72			*		Gry Tan Brn			* BPSI-SB3006-72.072.5	0	0	0	0
		73												
		74									0	0	0	0
		75						(same)		wet				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3006
DATE: 7-27-10
GEOLOGIST: Vince Shickora
DRILLER: Jan Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		76					Tan Brn	F/M Sand - little C Sand Trace Silt		wet	0	0	0	0
		77			⊛					⊛ BPSI-SB3006-77.0 77.5				
1226	↓	78		10.5'			Brn Red	(same)		wet	0	0	0	0
	S-8	79		20.0'			Red	Silty VF Sand - Trace clay (mottled) (micaceous)		wet				
		80					Gry				0	0	0	0
		81			⊛			(more silt)		⊛ BPSI-SB3006-80.5 81.0				
		82						(same)		wet	0	0	0	0
		83					Red Gry	VF/F Sand - little Silt (micaceous)						
		84					Brn				0	0	0	0
		85					Tan Brn	F Sand - Trace M Sand and silt.		wet				
		86			⊛		Red				0	0	0	0
		87								⊛ BPSI-SB3006-86.0 86.5				
		88					Tan Brn				0	0	0	0
		89												
		90						(same)		wet	0	0	0	0
		91			⊛		Tan Gry	VF Sand - Silt (micaceous)		wet ⊛ BPSI-SB3006-91.0 91.5	0	0	0	0
		92												
		93					Brn Tan	VF/F Sand - Trace M Sand and silt		wet				
		94									0	0	0	0
		95					Tan	(same)		wet				
		96			⊛			(Few thin silt lenses)			0	0	0	0
		97		20.0'			org Tan			⊛ BPSI-SB3006-96.0 96.5				
1403	↓	98		20.0'						wet	0	0	0	0
	S-9	99												
		100						(See next page)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3006
DATE: 7-27-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		101			*		Red Brn Gry	Silty VF Sand - Trace clay (micaceous) (mottled)		wet	0	0	0	0
		102								* BPSI-SB3006-101.0 101.5				
		103									0	0	0	0
		104					Red							
		105					Brn Gry	(same)		wet	0	0	0	0
		106												
		107			*			(less silt)			0	0	0	0
		108								* BPSI-SB3006-107.0 107.5				
		109					Red	(less silt)			0	0	0	0
		110					Brn Gry	(same)		wet				
		111			*		Red Brn	VF/F Sand - little to Trace Silt (micaceous)		* BPSI-SB3006-111.0 111.5 wet	0	0	0	0
		112												
		113									0	0	0	0
		114					Tan Brn							
		115						(same)		wet	0.2	0	0	0
		116						(less silt)			0.9	0	0	0
		117		20.0'	*		Red Gry Tan			* BPSI-SB3006-117.0 117.5	1.2	0	0	0
1452	↓	118		20.0'				(same)		wet	0.6	0	0	0
5-10		119					Red Brn				0.1	0	0	0
		120						(same			0	0	0	0
		121												
		122					Red Tan				0	0	0	0
		123												
		124								wet	0	0	0	0
		125			*		Red Tan	Same		* BPSI-SB3006-120.0 130.0				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3006
DATE: 7-27-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		126					Tan Brn	VF/F Sand - little to Trace Silt (micaceous)		wet	0	0	0	0
		127						↓						
		128					Red	↓		wet	0	0	0	0
		129					Tan Gry	Silty VF Sand - Trace Clay (micaceous) (mottled)						
		130						↓		wet	0	0	0	0
		131					Brn	VF to F Sand						
		132					Tan	Trace Silt (micaceous)		wet	0	0	0	0
		133						↓						
		134						↓			0	0	0	0
		135			⊕		Brn Tan	(Same)		⊕ BPS1-SB3006-130.0 140.0				
		136						↓			0	0	0	0
		137		19.9'				↓						
1559	↓	138		20.0'			Tan Brn	↓		wet	0	0	0	0
	S-11	139						↓						
		140					Red Tan	(Same)		wet	0	0	0	0
		141						↓						
		142						(Trace M Sand)			0	0	0	0
		143					Brn Tan	↓			-		-	
		144						↓			0	0	0	0
		145			⊕			Same		wet				
		146					Tan Brn	(little M. Sand)		* BPS1-SB3006-140.0 150.0	0	0	0	0
		147						↓						
		148						(same)		wet	0	0	0	0
		149					Brn Gry	Clay with little silt (micaceous)		moist to wet				
		150						↓			0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3006
DATE: 7-27-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		151					Brn Gry	Clay with little silt (micaceous)		moist to wet	0	0	0	0
		152												
		153					Red Gry	Silty VF Sand (micaceous) (mottled)		wet	0	0	0	0
		154												
		155			#		org Brn	VF/F Sand - Trace silt and M Sand (micaceous)		wet	0	0	0	0
		156								# BPS1-SB3006-150.0 160.0				
		157		19.3'			org Brn				0	0	0	0
1651	↓	158		20.0'			Gry			wet				
	S-12	159									0	0	0	0
		160						(same)		wet				
		161					Tan Brn				0	0	0	0
		162												
		163					Brn Gry	Clay - Some silt (micaceous)		wet	0	0	0	0
		164												
		165			#		org Brn Gry	Silty VF Sand. little (micaceous) clay (mottled)		wet	0	0	0	0
		166								# BPS1-SB3006-160.0 170.0				
		167									0	0	0	0
		168					org				-		-	
		169					Brn Gry	(same)		wet	0	0	0	0
		170												
		171					Tan Brn	VF/F Sand. Trace silt (micaceous)			0	0	0	0
		172												
		173									0	0	0	0
		174					Brn Tan			wet				
		175			#			(same)		# BPS1-SB3006-170.0 175.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa-Sonic

BORING No.: BPSI-SB3006
DATE: 7-27-10 / 7-28-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		176					Org Brn Tan	VF/F Sand - Trace silt (micaceous)		wet	0	0	0	6
7/27/10		177		19.9'										
1740		178		20.0'							0	0	0	0
0800	S-13	179												
		180					Org Brn	(same)		wet	0.2	0	0	0
7/28/10		181			①		Gry			BPSI-SB3006-181.0 181.5	0.4	0	0	0
		182					Brn Gry	Silty VF Sand (micaceous)		wet	0.2	0	0	0
		183					Red	VF/F Sand - little to			0	0	0	0
		184					Brn Gry	Trace silt (micaceous)		wet				
		185			①						0	0	0	0
		186						(same)		② BPSI-SB3006-180.0 190.0				
		187					Org Brn Gry	Silty VF Sand - Trace clay (micaceous)		wet	0	0	0	0
		188												
		189						(mottled)			0	0	0	0
		190					Gry			wet				
		191									0	0	0	0
		192					Org Brn Gry	(same)		wet				
		193									0	0	0	0
		194					Brn Gry	VF/F Sand - Trace silt (micaceous)		wet				
		195			①						0	0	0	0
		196					Tan Brn			③ BPSI-SB3006-190.0 200.0				
		197		19.6'			Gry				0	0	0	0
0833		198		20.0'			Gry			wet				
	S-14	199									0	0	0	0
		200					Tan Gry	(same)		wet				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3006
DATE: 7-28-10
GEOLOGIST: Vince Shickosa
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		201					Tan Gry	VF/F Sand - Trace silt (micaceous)		wet	0	0	0	0
		202												
		203									0	0	0	0
		204					Tan Gry							
		205			*			(same)		wet	0	0	0	0
		206					Gry			* BPSI-SB3006-200.0-210.0				
		207									0	0	0	0
		208					Brn Gry							
		209									0	0	0	0
		210						(same)		wet				
		211									0	0	0	0
		212					Red Brn	(few thin silt lenses)						
		213					Gry				0	0	0	0
		214					Brn Gry	Silty VF Sand - (mottled) (micaceous)		wet				
		215			*		Brn	VF/F Sand - Trace		* BPSI-SB3006-210.0-220.0	0	0	0	0
		216					Gry	Silt (micaceous)		wet				
		217		19.9'							0	0	0	0
↓		218		20.0'			Brn Gry			wet	-		-	
0929	S-15	219									0	0	0	0
		220					Gry Brn	(Same)		wet				
		221									0	0	0	0
		222												
		223					org Brn				0	0	0	0
		224								* BPSI-SB3006-220.0-230.0				
		225			*		org Brn	(Same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see Page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3006
DATE: 7-28-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		226					Brn Gry	VF/F Sand - Trace silt (micaceous)		wet	0.1	0	0	0
		227			(A)			↓		(B) BPSI-SB3006-226.5-227.0	0.9	0	0	0
		228					Gry	Clay - little silt (micaceous)		wet	0.2	0	0	0
		229					org Brn	VF/F Sand - Trace silt						
		230					Brn	and M Sand. (micaceous)		wet	0	0	0	0
		231					Gry org	(Few thin clay lenses)						
		232									0	0	0	0
		233					org Brn							
		234									0	0	0	0
		235			(A)			(same)		wet				
		236					org Brn			(B) BPSI-SB3006-230.0-240.0	0	0	0	0
		237		19.9'										
1030	↓	238		20.0'			org Brn				0	0	0	0
	S-16	239												
		240									0	0	0	0
		241					org Brn	(same)		wet				
		242					Brn	↓			0	0	0	0
		243					Gry	clay - little silt (micaceous)		wet	-		-	
		244					Tan	VF/F Sand - Trace silt			0	0	0	0
		245			(A)		Brn	(micaceous)		wet				
		246						↓		(B) BPSI-SB3006-240.0-250.0	0	0	0	0
		247					Tan Brn	Silty VF Sand (micaceous)		wet				
		248					Gry				0	0	0	0
		249		12.0'			Brn	VF/F Sand - little to						
1129	↓	250		12.0'	EOB		Tan	Trace silt (micaceous)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3007
DATE: 7-29-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0835	S-1	1					Tan Brn	Sand - Silt - Gravel (Fill material)		damp	0	0	0	0
		2												
		3					DK Brn			moist	0	0	0	0
		4					Tan							
		5									0	0	0	0
		6								moist				
		7		7.8'			Tan Brn				0	0	0	0
0837	V	8		8.0'			BLK Brn	Silty Sand and F gravel some clay (Fill)		Black staining @BPSI-SB3007-8.0-8.5	2.1	0	0	6
	S-2	9					Tan	F/C Sand with F/M			0.2	6	0	0
		10					Brn	Gravel (Trace C Gravel)		moist	0.1	0	0	6
		11						(Fill?)						
		12					Tan Brn				0.1	0	0	0
		13												
		14									0	0	0	0
		15					Tan Brn	(Same)		moist				
		16									0	0	0	0
		17		9.1'										
0909	V	18		10.0'			Tan Brn				0	0	0	0
	S-3	19												
		20						(Same)		moist	0	0	0	0
		21												
		22									0	0	0	0
		23												
		24						(Same)			0	0	0	0
		25					Org Brn	F/M Sand - Some C Sand and Trace F pebbles		moist	0.2	6	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 4"X8" (overcasing) Sonic From 0' to 68' BGS
4"X6" Sonic From 68' to Total depth

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3007
DATE: 7-29-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		26					Org Brn	F/M Sand - Some C Sand Trace F Pebbles		moist	0.2	0	0	0
		27		8.9'						BPS1-SB3007-27.0-27.5	0.5	0	0	0
							Tan Brn				0.3	0	0	0
0930	↓	28		10.0'			Tan Gry	VF Sandy Silt (Micaceous)		very moist	0.1	0	0	0
	S-4	29									0.3	0	0	0
		30								BPS1-SB3007-30.0-30.5	0	0	0	6
		31												
		32					Tan Gry	Silty VF Sand (Micaceous)		moist				
		33									0	0	0	0
		34												
		35					Tan	(Same)		moist	0	0	0	0
		36					Gry				0.2	0	0	0
		37		8.2'			Gry	VF Sandy Silt (Micaceous)		moist	1.4	0	0	0
0950	↓	38		10.0'			Brn Gry	(Few thin clay lenses)		BPS1-SB3007-37.5-38.0	3.0	0	0	6
	S-5	39									0.1	0	0	6
		40												
		41					Gry Brn				0	0	0	0
		42						(Same)		very moist				
		43									0	0	0	0
		44					Gry Brn	VF/F Sand - Trace M Sand (Micaceous)		BPS1-SB3007-43.5-44.0				
		45									0	0	0	0
		46					Brn Tan	F/M Sand - Trace Silt			0.1	0	0	0
		47						(Few thin silt lenses)			0.2	0	0	0
1015	↓	48								BPS1-SB3007-47.0-47.5	0.1	0	0	0
	S-6	49												
		50						(Same)		very moist	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3007
DATE: 7-29-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		51					Brn Tan	F/M Sand - Trace silt		very moist	0.1	0	0	0
		52								BPSI-SB3007-52.0-52.5				
		53					Org Brn	F/C Sand - Trace silt and F pebbles		very moist	0.2	0	0	0
		54												
		55								wet ~ 54' BGS	0.3	0	0	0
		56					Brn Tan	F/M Sand with few thin silt lenses.		wet	2.0	0	0	0
		57		8.5'			Tan Brn	F/C Sand - Trace silt and F pebbles			4.2	0	0	0
1033		58		10.0'						BPSI-SB3007-57.0-57.5	4.3	0	0	0
	S-7	59									2.7	0	0	0
		60					Tan Brn	F/M Sand - little C Sand Trace silt (micaceous)		wet	0.1	0	0	0
		61												
		62					Tan				0	0	0	0
		63					Brn	(same)		wet				
		64					Brn Org			BPSI-SB3007-64.0-64.5	0	0	0	0
		65					Brn Red	F/C Sand - Trace Silt (micaceous)		wet				
		66									0	0	0	0
		67					Red							
		68								BPSI-SB3007-67.5-68.0	0	0	0	0
		69					Org Brn							
		70						(same)			0	0	0	0
		71					Brn	Silty F/M Sand. Trace clay (micaceous)		wet				
		72									0	0	0	0
		73								BPSI-SB3007-72.5-73.0				
		74					Org Brn Gry	VF Silty Silt (micaceous) (mottled)		wet	0	0	0	0
		75												

* When rock coring, enter rock brokeness.

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Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3007
DATE: 7-29-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		76					Org Brn Gry	VF Sandy Silt-Trace clay (micaceous) (mottled)		wet	0.1	0	0	0
		77					Red Tan			(#) BPSI-SB3007-77.0-77.5	0.3	0	0	0
1116		78					Gry	Silty VF Sand (micaceous) (mottled)		wet	0.1	0	0	0
1213	S-8	79					Red Brn	(Same)		wet	0	0	0	0
		80					Gry							
		81									0	0	0	0
		82								(#) BPSI-SB3007-82.5-83.0				
		83			(#)		Red Brn Gry				0	0	0	0
		84												
		85						(Same)		wet				
		86					Red Brn Gry	VF Sandy Silt (micaceous) (mottled)		wet	0	0	0	0
		87			(#)		Tan Gry	F/M Sand (micaceous) Trace Silt		(#) BPSI-SB3007-87.0-87.5 wet	0	0	0	0
		88					Tan Gry	Silty VF Sand-Trace clay (micaceous) (mottled)		wet				
		89									0	0	0	0
		90			(#)		Brn	F/M Sand - Trace C Sand						
		91					Tan	and Silt		(#) BPSI-SB3007-90.0-90.5				
		92									0	0	0	0
		93												
		94					Red Brn	(Few thin clay lenses)			0	0	0	0
		95						(Same)		wet	0	0	0	0
		96					Tan Brn			(#) BPSI-SB3007-96.5-97.0				
		97			(#)		Org Brn	F/C Sand - Trace Silt (micaceous)		wet	0	0	0	0
1237		98												
	S-9	99									10	0	0	0
		100			(#)		Brn Gry	Silty VF Sand - Trace clay (micaceous) (mottled)		(#) BPSI-SB3007-100.0-100.5	2.9	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3007
DATE: 7-29-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time	101					Red Brn	Silty VF Sand - Trace clay (Micaceous) (moist)		wet	0	0	0	0
	102												
	103									0	0	0	0
	104												
	105						(same)		wet	0	0	0	0
	106			*		Red Brn Gry							
	107								* BPS1-SB3007-106.0106.5	0	0	0	0
	108						(same)						
	109					Brn Gry	VF Sand - Trace silt (micaceous)		wet	0	0	0	0
	110					Org Gry	Silty VF Sand - some clay (micaceous)		wet				
	111			*		Org Brn	VF Sand - little to Trace Silt (micaceous)			0	0	0	0
	112					Gry	(Few clay lenses 1/4"-1/2")		* BPS1-SB3007-110.0110.5				
	113									0	0	0	0
	114					Gry			wet				
	115						(same)			0	0	0	0
	116					Brn Gry							
	117		19.6'	*					* BPS1-SB3007-116.0116.5	0	0	0	0
1318	118		20.0'			Red Gry			wet	-		-	
5-10	119					Tan Gry	F Sand - Trace silt and M Sand (micaceous)		wet	0	0	0	0
	120												
	121									0	0	0	0
	122					Red Brn	VF Sandy Silt - Trace clay (micaceous)		wet				
	123					Gry				0	0	0	0
	124												
	125			*		Gry	Clay - Trace silt and VF Sand		* BPS1-SB3007-120.0130.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3007
DATE: 7-29-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		126					Red Brn Gry	Silty VF Sand - Trace clay (micaceous) (mottled)		wet	0	0	0	0
		127												
		128					Gry	Clay - Trace silt			0	0	0	0
		129												
		130						(same)		wet	0	0	0	0
		131												
		132					Brn Gry				0	0	0	0
		133												
		134					Blk	Clayey Silt (No plasticity)		damp to moist	0	0	0	0
		135			(1)			(lignite/organic material?)		(1) BPSI-SB3007-130.0150				
		136					Brn Blk	Clay - Trace silt		wet	0	0	0	0
		137		19.5'			Gry							
1357	↓	138		20.0'			Brn Gry	VF Sandy Silt (micaceous) (mottled)		wet	0	0	0	0
	S-11	139					Gry	Clay - Trace silt		wet	0	0	0	0
		140					Tan Brn	F Sand (micaceous)		wet				
		141					Gry	Clay - Trace silt		wet	0	0	0	0
		142					Tan Brn	VF/F Sand - Trace silt (micaceous)						
		143					Red Brn				0	0	0	0
		144					org Brn	Silty VF Sand - Trace clay (micaceous)		wet				
		145			(2)		Gry	(mottled)			0	0	0	0
		146								(2) BPSI-SB3007-140.0150.0				
		147					Brn	VF/F Sand - Trace M sand and silt		Wet	0	0	0	0
		148					Gry Tan							
		149												
	↓	150					Tan							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3007
DATE:
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		151					Brn Tan	VF/F Sand - Trace M Sand and silt		wet	0	0	0	0
		152												
		153									0	0	0	6
		154					Org Brn							
		155					Tan	(same)		wet	0	0	0	6
		156						(Few thin clay lenses)		* BPSI-SB3007-150.0160.0				
		157		19.4'			Red Gry				0	0	0	0
1506	✓	158		20.0'				(same)						
S-2		159									0	0	0	0
		160								wet				
		161									0	0	0	0
		162												
		163						(same)		wet	0	0	0	0
		164					Gry	Silty Clay (micaceous)						
		165					Org	Silty VF Sand - Trace clay		wet	0	0	0	6
		166					Red Gry	(micaceous) (mottled)		* BPSI-SB3007-160.0170.0				
		167					Gry				0	0	0	0
		168					Org Brn	(same)						
		169					Tan	VF/F Sand - Trace silt		wet	0	0	0	6
		170					Gry	(micaceous)						
		171									0	0	0	0
		172					Org Tan			wet				
		173					Gry				0	0	0	0
		174								* BPSI-SB3007-170.0180.0				
		175					Tan Gry	(same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3007
DATE: 7-29-10
GEOLOGIST: Vince ShickoraA
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		176					Tan Gry	VF/F Sand - Trace silt (micaceous)		wet	0	0	0	0
		177		19.7'			Org							
1547	↓	178		20.0'				(Few thin clay lenses)		wet	0	0	0	0
	S-13	179												
		180					Brn Tan	(same)			0	0	0	0
		181												
		182									0	0	0	0
		183					Brn Tan	(same)		wet				
		184					Red Gry	Silty VF Sand (micaceous)		wet	0	0	0	0
		185					Red Brn	F Sand - little VF Sand (micaceous)		wet				
		186					Red	Silty VF Sand		BPS1-SB3007-180.0-190.0	0	0	0	0
		187					Brn Gry	(micaceous) (mottled) Trace clay						
		188								wet	0	0	0	0
		189					Red	VF/F Sand - Trace Silt						
		190					Brn Gry				0	0	0	0
		191						(same)						
		192					Brn Red			wet	0	0	0	0
		193												
		194					Org Brn	(same)			0	0	0	0
↑		195								wet				
7/29/10		196					Brn Gry	Silty VF Sand (micaceous) (mottled)		BPS1-SB3007-190.0-198.0	0	0	0	0
		197												
1639	↓	198					Org Brn Gry				0	0	0	0
0813	S-14	199												
7/30/10		200					Brn Gry	(same)		wet	0	0	0	0
↓														

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3007
DATE: 7-30-10
GEOLOGIST: Vince Shickosa
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		201					Brn Gry	Silty VF Sand (micaceous) (mottled)		wet	0	0	0	6
		202												
		203					Tan Gry	VF/F Sand - little to Trace Silt (micaceous)		wet	0	0	0	6
		204												
		205						(same)		wet	0	0	0	0
		206					Gry			BPSI-SB3007-200.0-210.0				
		207									0	0	0	0
		208												
		209					Gry			wet	0	0	0	0
		210						(same)						
		211					Tan Gry			wet	0	0	0	0
		212												
		213									0	0	0	0
		214					Brn Gry			wet				
		215						(same)			0	0	0	0
		216								BPSI-SB3007-210.0-220.0	0.1	0	0	0
		217		19.6'			Brn Gry			wet	0.4	0	0	0
0845	↓	218		20.0'						BPSI-SB3007-217.5-218.0	0.7	0	0	0
5-15		219									0.1	0	0	6
		220					Gry	(same)		wet				
		221									0	0	0	6
		222					Brn Gry							
		223								wet	0	0	0	0
		224												
		225					Brn Gry	(same)		BPSI-SB3007-220.0-230.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see Page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3007
DATE: 7-30-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		226					Brn Gry	VF/F Sand - little to Trace silt (micaceous)		wet	0	0	0	0
		227					Brn Org	↓						
		228					Brn Gry	Silty VF Sand - Trace clay (micaceous)		wet	0	0	0	0
		229					Brn Gry	VF Sand - little silt (micaceous)						
		230						↓			0	0	0	0
		231						(same)		wet				
		232					Org Brn	VF sandy Silt with Trace clay (micaceous) (mottled)			0	0	0	0
		233					Gry							
		234									0	0	0	0
		235					Gry Brn	(same)						
		236					Org			(*) BPSI-SB3007-230.0 240.0	0	0	0	0
		237		19.7'				(more VF Sand)		wet				
0935	↓	238		20.0'			Org Brn				0	0	0	0
	S-16	239					Gry							
		240						↓ (same)		wet	0	0	0	0
		241					Brn Org	Silty VF Sand (micaceous)						
		242					Brn Org	VF/F Sand - little to Trace silt (micaceous)		wet	0	0	0	0
		243												
		244									0	0	0	0
		245					Tan Brn	(same)		wet				
		246								(*) BPSI-SB3007-240.0 250.0	0	0	0	0
		247												
		248					Org Tan				0	0	0	0
		249		11.8'			Brn							
1021	↓	250		12.0'	EOB			↓ (same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0908	S-1	1					Brn	Gravel	GP	damp	0	0	0	0
		2					Brn Tan	Sand an Gravel (Fill Material)	SW	moist	0	0	0	0
		3												
		4									0	0	0	0
		5						(same)		moist				
		6								BPS1-SB3008-0007	0	0	0	0
		7												
0912		8					Brn	F/M Sand with some		moist	0	0	0	0
	S-2	9					Tan	F/M Gravel (pebbles)						
		10						(Fill Material)			0	0	0	0
		11						(same)		moist				
		12					Tan				0	0	0	0
		13					Brn							
		14									0	0	0	0
		15						(same)		moist				
		16					Tan			BPS1-SB3008-0825.0	0	0	0	0
		17		6.3'			Brn							
0926		18		10.0'							0	0	0	0
	S-3	19												
		20					Brn Tan	(same)		moist	0	0	0	0
		21												
		22					Brn				0	0	0	0
		23					Tan							
		24									0	0	0	0
		25					Brn Tan	(same)	N	moist				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 4"X6" Sonic (cont. cores) 0' to Total depth
8" Sonic Lovercasing 0' to 68' BGS

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		26					Brn Tan	F/M Sand with some F/M pebbles		Moist	0	0	0	0
		27		6.8'						BPSI-SB3008-27.0-27.5				
0944	↓	28		10.0'							0	0	0	0
	S-4	29					Red	F/C Sand - little to		very moist				
		30					DK Brn	Trace F pebbles and silt			0	0	0	0
		31												
		32									0	0	0	0
		33					Red							
		34					DK Brn	(Same)		moist	0	0	0	0
		35								BPSI-SB3008-34.0-34.5				
		36						(Few thin clay lenses)		very moist	0	0	0	0
		37		8.5'			Tan Brn Red			BPSI-SB3008-37.0-37.5	0	0	0	0
1004	↓	38		10.0'				(Same)		very moist				
	S-5	39									0	0	0	0
		40					Brn							
		41					Tan	VF/F Sand - little C Sand and Trace silt (micaceous)		BPSI-SB3008-41.0-41.5	0	0	0	0
		42												
		43												
		44						(Thin clay lense)		very moist	0	0	0	0
		45												
		46									0	0	0	0
		47		7.9'				(Same)		very moist				
1023	↓	48		10.0'				(Few thin silt-clay lenses)		BPSI-SB3008-47.0-47.5	0	0	0	0
	S-6	49												
		50						(See next page)		very moist	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		51					Tan Grey	F/M Sand - Trace C Sand (micaceous)		very moist	0.2	0	0	0
		52			⊛					⊛ BPS1-SB3008-52.0-52.5	0.6	0	0	0
		53					Tan	(same)		wet - 53' BGS	0.5	0	0	0
		54			▽		Grey				0.1	0	0	0
		55					org Tan	F/C Sand - Trace Silt and F pebbles		wet				
		56									0	0	0	0
		57		7.1'			Tan	F/M Sand - little C Sand - Trace Silt		wet				
1043	↓	58		10.0'	⊛					⊛ BPS1-SB3008-57.0-57.5	0	0	0	0
5-7		59												
		60					Brn Tan	(same)			0	0	0	0
		61								wet				
		62									0	0	0	0
		63					Brn							
		64			⊛		Tan	(same)		wet	0	0	0	0
		65					Brn Grey	Silty VF Sand - Trace clay (micaceous) (mottled)		⊛ BPS1-SB3008-64.0-64.5				
		66									0	0	0	0
		67												
		68			⊛		org Brn Grey	(Few thin clay lenses)		⊛ BPS1-SB3008-67.5-68.0	0	0	0	0
		69												
		70					Brn Grey	VF Sandy Silt - little clay (micaceous) (mottled)		wet	0	0	0	0
		71												
		72					org Brn	F/M Sand - some C Sand Trace Silt		wet	0	0	0	0
		73			⊛					⊛ BPS1-SB3008-73.0-73.5	0	0	0	0
		74												
		75								wet				

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		76						F/M Sand - Some C Sand Trace Silt		wet	0	0	0	0
		77		19.5'	(*)									
1139	↓	78		20.0'			Brn	Silty VF Sand - Trace		(*) BPSI-SB3008-77.0-77.5	0	0	0	0
1228	S-8	79					Gry	Clay (micaceous) (mottled)						
		80					org Brn	F/M Sand - Trace Silt		wet	0	0	0	0
		81												
		82									0	0	0	0
		83			(*)		Red Brn			(*) BPSI-SB3008-83.0-83.5				
		84						(same)		wet	0	0	0	0
		85					org Brn							
		86					org Brn	VF/F Sand Trace silt (micaceous)			0.2	0	0	0
		87			(*)		Gry	(Few thin clay lenses)		(*) BPSI-SB3008-86.5-87.0	0.5	0	0	0
		88					Brn Gry				0.2	0	0	0
		89												
		90					Brn Gry	(same)		wet	0	0	0	0
		91			(*)		org Brn	Silty VF Sand (micaceous) (mottled)						
		92					Gry Brn			(*) BPSI-SB3008-91.0-91.5	0	0	0	0
		93												
		94					org Brn	(same)			0	0	0	0
		95					Brn Gry	VF Sand - little silt (micaceous)						
		96									0	0	0	0
		97		19.8'	(*)		Gry	(Few thin silt lenses)		(*) BPSI-SB3008-97.0-97.5				
1247	↓	98		20.0'							0	0	0	0
	S-9	99												
		100								wet				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	101					Gry	VF Sand - Some Silt (micaceous)			0	0	0	0
	102								wet				
	103									0	0	0	0
	104			⊕		BlK Gry	(Few thin silt lenses)		⊕ BPSI-SB3008-103.5104.0				
	105									0	0	0	0
	106					Gry	(less silt)		wet				
	107			⊕						0	0	0	0
	108								⊕ BPSI-SB3008-107.0107.5				
	109					Brn Gry				0	0	0	0
	110						(Same)		wet				
	111					Gry				0	0	0	0
	112			⊕			(less silt)		⊕ BPSI-SB3008-111.5112.0				
	113					Brn Tan				0	0	0	0
	114						(few thin clay lenses)		wet				
	115					Gry Tan				0	0	0	0
	116					Gry	(Same)		⊕ BPSI-SB3008-116.5117.0				
	117		19.4'	⊕		Gry	Clay - Trace Silt (micaceous)		wet	0	0	0	0
1322	118		20.0'							-		-	
S-10	119					Tan Gry	VF/F Sand - little to Trace Silt (micaceous)		wet	0	0	0	0
	120					Brn	F/M Sand - Trace C Sand and Silt		wet				
	121					Brn Gry	Clay with some Silt (micaceous)			0	0	0	6
	122						↓						
	123						↓			0	0	0	0
	124					Tan Brn	VF Sand - Some Silt (micaceous)		wet				
	125			⊕		Gry	↓		⊕ BPSI-SB3008-120.0130.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		126					Gry Brn	Clay - Trace Silt (micaceous)		wet	0	0	0	0
		127												
		128					Org Brn	Silty VF Sand (micaceous) (mottled)			0	0	0	0
		129					Gry	Trace clay		wet				
		130					Red				0	0	0	0
		131					Gry							
		132					Gry	Clay - Trace Silt		wet	0	0	0	0
		133					Red	Silty VF Sand - Trace clay (micaceous) (mottled)						
		134					Brn Gry				0	0	0	0
		135												
		136					Red	(More Sand) Sand lense		* BPSI-SB3008-130.0-140.0	0	0	0	0
		137		19.7'			Brn	(Same)		wet				
1355	↓	138		20.0'			Red Gry	(Thin clay) lense			0	0	0	0
	S-11	139					Org Brn	F Sand - little to Trace M Sand - Trace Silt		wet				
		140					Red Brn				0	0	0	0
		141												
		142					Red Brn				0	0	0	0
		143								wet				
		144					Org Brn	(Same)			0	0	0	0
		145												
		146					Org Brn	(Thin Silt lense)		* BPSI-SB3008-140.0-150.0	0	0	0	0
		147												
		148					Tan Brn	(Same)		wet	0	0	0	0
		149					Red Brn	Silty VF Sand - Trace clay (micaceous) (mottled)						
		150					Gry				0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: (See page 1)

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		151					Red Gry	Silty VF Sand - Trace clay (micaceous)		wet	0	0	0	0
		152					DK Brn							
		153									0	0	0	0
		154					Org Brn	VF/F Sand - little to Trace M Sand (micaceous)		wet				
		155			4			Trace Silt			0	0	0	0
		156					Org Brn			* BPSI-SB3008-150.0-160.0				
		157		19.2'				(Few thin clay lenses)			0	0	0	0
1140	↓	158		20.0'			Org Tan			wet				
	S-12	159					Gry	Clay - Trace Silt		wet	0	0	0	0
		160					Brn Tan	VF/F Sand Trace Silt (micaceous)			8.2	0	0	0
		161			*						0.6	0	0	0
		162								* BPSI-SB3008-161.0-161.5	0.2	0	0	0
		163					Brn Tan				0	0	0	0
		164												
		165			4		Brn Tan	(same)		wet	0	0	0	0
		166								* BPSI-SB3008-160.0-170.0				
		167					Brn Tan				0	0	0	0
		168									-		-	
		169						(same)		wet	0	0	0	0
		170					Brn Tan							
		171									0	0	0	0
		172					Tan							
		173						(same)		wet	0	0	0	0
		174					Brn Tan			* BPSI-SB3008-170.0-180.0				
		175			*		Brn Gry	Silty VFSand (micaceous)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-2-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		176					Tan Gry	Silty VF Sand (micaceous)		wet	0	0	0	0
		177		19.6'										
1528	↓	178		20.0'				(less silt)		wet	0	0	0	0
	S-13	179					Brn Gry	VF/F Sand - Trace silt and M Sand						
		180					Brn	VF Sand - some silt		wet	0	0	0	0
		181					Gry	(micaceous)						
		182					Tan Gry	Silty VF Sand (micaceous)		wet	0	0	0	0
		183												
		184					Blk Gry	Clayey silt - little to Trace VF Sand (micaceous)		wet	0	0	0	0
		185		(*)			Brn							
		186					Red Brn	Silty VF Sand (micaceous) (mottled)		(*) BPSI-SB3008-180.0190.0	0	0	0	0
		187					Gry							
		188									0	0	0	0
		189					Red Brn							
		190					Gry	(same)		wet	0	0	0	0
		191												
		192					Red Brn	(Few thin clay lenses)			0	0	0	0
		193					Gry							
		194					Red			wet	0	0	0	0
↑		195		(*)			Brn Gry							
8/2/10		196					Org Brn	VF Sand - little to Trace Silt (micaceous)		(*) BPSI-SB3008-190.0198.0	0	0	0	0
		197					Gry							
1620	↓	198					Brn Gry	(same)		wet	0	0	0	0
0803	S-14	199					Gry	Clay - Trace silt + VF Sand		wet	0	0	0	0
	↓	200					Red Brn	VF/F Sand - little to Trace Silt (micaceous)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-3-10
GEOLOGIST: Vince Shickosa
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		201					Org Brn	VF/F Sand - little to Trace Silt (micaceous)		wet	0	0	0	0
		202												
		203					Red Brn				0	0	0	0
		204					Gry							
		205						(same)		wet	0	0	0	0
		206					Red Brn			(*) BPSI-SB3008-200.0-210.0				
		207					Gry	(Trace M-Sand)			0	0	0	0
		208					Tan Gry							
		209									0	0	0	0
		210					Tan Gry	(Thin clay lense)		wet				
		211						(same)			0	0	0	0
		212					Org Tan							
		213									0	0	0	0
		214					Org Tan							
		215						(same)		wet	0	0	0	0
		216					Org Tan			(*) BPSI-SB3008-210.0-220.0				
		217		19.8'							0	0	0	0
0840	↓	218		20.0'			Brn Org	Silty F/M Sand - Trace clay and C Sand		wet				
5-15		219					Brn	VF/F Sand - Trace Silt			0	0	0	0
		220					Tan	(MICACEOUS)		wet				
		221									0	0	0	0
		222					Org Brn							
		223									0	0	0	0
		224						(same)		(*) BPSI-SB3008-220.0-230.0				
		225					Org Brn			wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see Page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3008
DATE: 8-3-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		226					org Brn	VF/F Sand - Trace silt (micaceous)		wet	0	0	0	0
		227												
		228									0	0	0	0
		229					org Brn							
		230						(same)		wet	0	0	0	0
		231												
		232					org Brn				0	0	0	0
		233												
		234					org Dk Brn	(same)		wet	0	0	0	0
		235			④					⑧ BPSI-SB3008-234.5-235.0	0	0	0	0
		236			④		org Brn	Silty VF Sand - Trace clay (micaceous)		wet				
		237					Gry	(mottled)		⑧ BPSI-SB3008-230.0-238.0	0	0	0	6
0925	↓	238						↓ (less silt)		wet	0	0	0	0
		239			EoB									
		240												
		241												
		242												
		243												
		244												
		245												
		246												
		247												
		248												
		249												
		250												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)
Note → possible break in 6" casing causing low water pressure on rig
Boring SB3008 ended at 238'

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWERP Bethpage
PROJECT NUMBER: GTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0848	S-1	1					Brn Tan	Silty Sand and Gravel (Fill)		damp	0	0	0	0
		2												
		3						(less silt)			0	0	0	0
		4												
		5					Brn Tan	(same)		moist	0	0	0	0
		6												
		7						(less silt)			0	0	0	0
0853		8					Brn Tan			moist				
	S-2	9						F/C Sand and F/M Gravel - little silt (Fill?)			0	0	0	0
		10								moist				
		11					Brn Tan				0	0	0	0
		12								④ BPSI-SB3009-8.0 3.5.0				
		13									0	0	0	0
		14					org Brn Tan							
		15						(same)		moist	0	0	0	0
		16												
		17		7.7'			Tan Brn				0	0	0	0
0908		18		10.0'										
	S-3	19									0	0	0	0
		20					Brn Tan	(same)		moist				
		21									0	0	0	0
		22												
		23					Red Brn				0	0	0	0
		24					Brn Tan	(same)		moist				
		25					Red Brn	VF/F Sand Trace silt		moist	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 4"x6" Sonic (Cont. cores) from 0' to Total depth
8" Sonic (Overcasing) from 0' to 68' BGS

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keiter

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		26					Org Brn	VF/F Sand - Trace silt and M Sand (micaceous)		moist	0	0	0	0
		27					Tan							
0924		28		8.2'						④ BPSI-SB3009-27.0 27.5	0	0	0	0
	S-4	29		10.0'			Red Tan							
		30						(same)		moist	0	0	0	0
		31					Red			④ BPSI-SB3009-30.0 30.5				
		32					Red Tan				0	0	0	0
		33												
		34					Tan				0	0	0	0
		35						(same)		moist				
		36					Org Dk Brn	Silty VF Sand		damp to dry	0	0	0	0
		37								④ BPSI-SB3009-36.0 36.5				
0948		38					Tan Org Brn	F/M Sand - some silt Trace C Sand		very moist	0	0	0	0
	S-5	39												
		40					Red	(same)		moist	0	0	0	0
		41					Brn			④ BPSI-SB3009-41.0 41.5				
		42					Brn Red	VF/F Sand - Trace silt (micaceous)		moist	0	0	0	0
		43												
		44					Tan Red	(Few thin silt lenses)		moist	0	0	0	0
		45						(same)						
		46					Brn Tan				0	0	0	0
		47								④ BPSI-SB3009-46.0 46.5				
1014		48					Red Brn Tan			moist	0	0	0	0
	S-6	49					Red Brn	F/M Sand - Trace silt and C Sand		very moist				
		50									0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		51					Red Brn	F/M Sand - Trace silt and C Sand		very moist	0.2	0	0	0
		52								(*) BPSI-SB3009-51.0-51.5	0.2	0	0	0
		53			▽			(same)		wet @ 52' BGS	0.2	0	0	0
		54									0.1	0	0	0
		55					Brn Red	F/C Sand - Trace silt and F pebbles		wet	0	0	0	0
		56					Grey			(*) BPSI-SB3009-56.0-56.5				
		57			(*)		Red Tan	F/M Sand - Trace silt and C Sand.		wet	0	0	0	0
1039		58					Brn Red	M/C Sand - little F Sand and silt		wet				
	S-7	59					Brn	F/M Sand - little C Sand			0	0	0	0
		60					Red	Trace silt		wet				
		61									0	0	0	0
		62								wet				
		63			(*)		Tan Brn	(less C Sand)		(*) BPSI-SB3009-62.0-62.5	0	0	0	0
		64												
		65					Red Tan	(same)		wet	0	0	0	0
		66												
		67					Brn Red				0	0	0	0
		68			(*)		Red	('more C sand)		(*) BPSI-SB3009-67.0-67.5				
		69									0	0	0	0
		70						(same)						
		71									0	0	0	0
		72					Tan	(less C Sand)						
		73					Grey Red	(Few thin silt lenses) (same)			0	0	0	0
		74			(*)		DK Brn	VF/F Sand - little to Trace silt (micaceous)		(*) BPSI-SB3009-73.5-74.0				
		75					Tan				0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jan Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		76					DK Brn	VF/F Sand - little to Trace silt (micaceous)		wet	0	0	0	0
		77		18.8'			Gry	↓		BPSI-SB3009-77.0775				
1154	↓	78		20.0'			Gry Brn	Silty VF Sand (micaceous) (mottled)			0	0	0	0
	S-8	79					Brn Tan	F/M Sand - Trace Silt (micaceous)						
		80												
		81									0	0	0	0
		82					Gry Tan	(Few thin clay lenses)		BPSI-SB3009-81.582.0				
		83									0	0	0	0
		84					Brn Tan	(Same)						
		85						↓			0	0	0	0
		86					Brn Tan	VF/F Sand - little silt		wet				
		87								BPSI-SB3009-86.587.0	0	0	0	0
		88					dkg Brn	Silty VF Sand - Trace clay (micaceous						
		89					Gry				0	0	0	0
		90												
		91						(Few thin clay lenses)		wet	0	0	0	0
		92					Tan Red	F/M Sand - Trace silt (micaceous)		BPSI-SB3009-90.591.0				
		93									0	0	0	0
		94												
		95					Red.				0	0	0	0
		96						(Same)		wet				
		97		19.0'			Red Brn	Silty VF Sand (micaceous) (mottled)		BPSI-SB3009-96.0965	0	0	0	0
1325	↓	98		20.0'			Gry			wet				
	S-9	99					dkg Tan	VF/F Sand - little silt (micaceous)			0	0	0	0
		100												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: (See page 1)

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		101					Brn Tan	VF/F Sand - little silt (micaceous)		wet	0	0	0	0
		102								BPSI-SB3009-101.0 101.5				
		103									0	0	0	0
		104					Brn Tan	(same)						
		105									0	0	0	0
		106					Gry Brn	(Few thin clay lenses)		BPSI-SB3009-106.0 106.5				
		107					Tan				0	0	0	0
		108					Red			wet				
		109									0	0	0	0
		110					Tan	(same)						
		111					Org Tan				0	0	0	0
		112								wet				
		113						(same)			0	0	0	0
		114					Red			BPSI-SB3009-113.5 114.0				
		115					Brn Gry	Silty VF Sand (micaceous) (mottled) (Trace clay)		wet	0	0	0	0
		116												
		117		20.0'			Red Brn	F Sand - little VF Sand and Trace M Sand and		wet	0	0	0	0
1353	↓	118		20.0'			Org	Silt.		BPSI-SB3009-117.0 117.5				
S-10		119									0	0	0	0
		120					Org Brn							
		121					Brn	Clay - Some Silt Trace VF Sand		wet	0	0	0	0
		122					Gry							
		123					Brn	Silty VF Sand			0	0	0	0
		124					Gry	(micaceous) (mottled)		wet				
	↓	125								BPSI-SB3009-120.0 130.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		126					Brn	Silty VF Sand (micaceous) (mottled)		wet	0	0	0	0
		127					Gry	↓						
		128					Brn	↓			0	0	0	0
		129					Red Gry	VF Sandy Silt - Trace clay (micaceous) (mottled)		wet				
		130						↓			0	0	0	0
		131					Brn	↓						
		132					Gry	(Thin clay lense)		wet	0	0	0	0
		133						VF/F Sand - Some Silt (micaceous) (mottled)						
		134					Red Brn	↓			0	0	0	0
		135					Gry	↓		wet				
		136						↓		④ BPSI-SB3009-130.0/140.0	0	0	0	0
		137		19.9'			Red Gry	(Same)						
1437	↓	138		20.0'				↓		wet	0	0	0	0
	S-11	139					Red Gry	Silty VF Sand (micaceous) (mottled)			0.2	0	0	0
		140						Trace clay			0.9	0	0	0
		141					Brn Red	(Thin clay lense)		⑤ BPSI-SB3009-140.0/140.5	0.8	0	0	0
		142					Gry				0.2	0	0	0
		143												
		144					Red Gry				0	0	0	0
		145						(Same)						
		146					Brn			⑥ BPSI-SB3009-140.0/150.0	0	0	0	0
		147					Red Gry	(more silt)						
		148						↓			0	0	0	0
		149						↓						
	/	150						(Same)			0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		151					Brn Gry	Silty VF Sand Trace clay (micaceous) (mottled)		wet	0	0	0	0
		152					Brn	VF/F Sand - little M sand - Trace silt		wet				
		153					org Brn				0	0	0	0
		154												
		155			*		Red Brn	(same)		wet	0	0	0	0
		156					Tan			* BPSI-SB3009-150.0160.0				
		157		19.9'			Red Tan				0	0	0	0
1510		158		20.0'										
	S-12	159					Brn Gry	VF Sandy Silt - little clay (micaceous)		wet	0	0	0	0
		160					Red Brn	VF/F Sand - Trace M sand and silt						
		161					org				0	0	0	0
		162												
		163					org Brn				0	0	0	0
		164												
		165			*			(same)		wet	0	0	0	0
		166								* BPSI-SB3009-160.0170.0				
		167					Red	Silty VF Sand			0	0	0	0
		168					Brn Gry	Trace clay (micaceous) (mottled)		wet				
		169									0	0	0	0
		170						(same)		wet				
		171									0	0	0	0
		172					Red Brn							
		173					Gry				0	0	0	0
		174								wet				
		175			*			(same)		* BPSI-SB3009-170.0180.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes _____ No ✓ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 7-31-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		176					Red Brn	Silty VF Sand Trace clay (micaceous)		wet	0	0	0	0
		177		20.0'			Gry	(mottled)						
1555	↓	178		20.0'			Red Brn	VF/F Sand - Trace silt (micaceous)		wet	0	0	0	0
	S-13	179												
		180					Org Brn				0	0	0	0
		181												
		182					Red Brn				0	0	0	0
		183												
		184						(same)		wet	0	0	0	0
		185			②		Org Brn			③ BPSI-SB3009-180.0190.0				
		186					Brn Gry	Silty VF Sand Trace clay (micaceous)		wet	0	0	0	0
		187					Tan Brn	VF/F Sand Trace silt (micaceous)						
		188									0	0	0	0
		189					Brn Gry	VF Sandy Silt - Trace clay (micaceous)		wet				
		190					Org	Silty VF Sand Trace			0	0	0	0
		191					Brn Gry	clay (micaceous) (mottled)		wet				
		192									0	0	0	0
		193					Red Brn							
		194					Gry	(same)			0	0	0	0
↑		195			②									
7/31/10		196					Red Brn	(less silt)		④ BPSI-SB3009-190.0198.0	0	0	0	0
		197		20.0'			Gry							
1655	↓	198		20.0'			Tan Gry	(same)		wet	0	0	0	0
0823	S-14	199												
		200						(same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 8-1-10
GEOLOGIST: Vince Shickosa
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		201					Red Brn	Silty VF Sand - Trace clay (micaceous)		wet	0	0	0	0
		202					Gry							
		203					Red Brn	VF/F Sand - Trace M Sand and silt (micaceous)		wet	0.1	0	0	6
		204									0.2	0	0	0
		205					org Brn				0.5	0	0	0
		206					Tan			BPSI-SB3009-200.0210.0	0.5	0	0	0
		207					Tan			wet	0.8	0	0	0
		208					Brn				1.7	0	0	0
		209					org Brn	(Same)		wet	3.6	0	0	0
		210					Gry	Clay - Trace Silt (micaceous)		BPSI-SB3009-209.0209.5	2.4	0	0	0
		211									0.3	0	0	0
		212					Gry			wet	0.3	0	0	0
		213					Blk	Clayey Silt (micaceous) (No plasticity)		moist to damp	0.1	0	0	0
		214					Gry Blk	(Lignite/organic matl.?)		BPSI-SB3009-213.0213.5	0.1	0	0	0
		215									0.0	0	0	0
		216					org Brn	VF Sandy Silt - little clay (micaceous)		BPSI-SB3009-210.0220.0				
		217		20.0'							0	0	0	0
0916		218		20.0'			Gry							
	S-15	219					org Brn				0	0	0	0
		220						(Same)		wet				
		221									0	0	0	0
		222					org Brn	VF/F Sand - Trace Silt (micaceous) Trace M Sand						
		223									0	0	0	0
		224								wet				
		225						(Same)		BPSI-SB3009-220.0230.0	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see Page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3009
DATE: 8-1-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		226					org Brn	VF/F Sand - Trace Silt (micaceous) Trace M Sand		wet	0	0	0	0
		227												
		228					Tan Brn				0	0	0	0
		229												
		230					org Tan	(same)		wet	0	0	0	0
		231					Brn							
		232									0	0	0	0
		233					org Brn							
		234									0	0	0	0
		235			①		Tan Brn	(same)		wet				
		236								② BPSI-SB3009-230.0-240.0	0	0	0	0
		237		20.0'			org Brn							
1015	↓	238		20.0'							0	0	0	0
	S-16	239												
		240					org Brn	(same)		wet	0	0	0	0
		241												
		242									0	0	0	0
		243					org Brn							
		244									0	0	0	0
		245			②			(same)		wet				
		246					org Brn			② BPSI-SB3009-240.0-250.0	0	0	0	0
		247												
		248					Gry	(Few thin clay lenses)			0	0	0	0
		249					org Brn							
1111	↓	250			EoB			(same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWTRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3010
DATE: 8/15/10
GEOLOGIST: ~~Vince Shickora~~ J Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
								(asphalt)						
	S-1	1			asphalt	sl. loose	brn	fine-coarse SAND and GRAVEL	SW		0	0	0	0
		2				sl. loose/dense	brn	fine-coarse SAND		DRY				
		3				sl. loose/range	brn	some gravel and cobbles			0	0	0	0
		4									0			
		5									0	0	0	0
		6								moist damp				
		7		8.5/							0			
		8		10										
	S-2	9									0	0	0	0
		10												
		11								damp	0			
		12												
		13									0	0	0	0
		14												
		15									0			
		16												
		17					tan	(color change only)		damp	0	0	0	0
1140		18												
	S-3	19						gravelly fine-coarse SAND, trace silt			0			
		20												
		21		9.5/							0	0	0	0
		22		10										
		23									0			
		24												
		25					dk brn	silty fine-medium SAND	SM		0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: _____

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3010
DATE: 8-15-10
GEOLOGIST: ~~Vince Shickora~~ J. Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-3	26				sl. loose	tan	gravelly fine-coarse SAND some cobbles	SW		0	0	0	0
		27								damp				
1204	↓	28					dk gray	silty fine-medium SAND (micaceous)	SM		0			
	S-4	29												
		30									0	0	0	0
		31								damp				
		32		8.5							0			
		33		/10							0	0	0	0
		34				sl. dense sl. loose	brn	silty fine-medium SAND	~~SP~~					
		35					lt brn	fine-medium SAND, trace silt	SP		0			
		36						(micaceous)		moist				
		37					red	(color change only)			0	0	0	0
1305	↓	38												
	S-5	39						similar to above			0			
		40												
		41									0	0	0	0
		42		4.1						wet-				
		43		/10						poor recovery	0			
		44												
		45									0	0	0	0
		46												
		47									0			
1324	↓	48												
	S-6	49					orange-brn	fine-medium SAND, trace silt, micaceous		water table at 49 - VOC	0	0	0	0
	↓	50					gray-tan	(color change only - poss. staining)	↓	sample collected				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3010
DATE: 8/15/10
GEOLOGIST: ~~Vince Shickora~~ J. Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	(S-6)	51				sl. loose	tan	fine-medium SAND	SP	wet	0	0	0	0
		52		9/				trace silt						
		53		/10							0			
		54						(color						
		55					dk pink	changes only)			0	0	0	0
8/15/10		56					tan red	fine-medium SAND, trace	SW	coarse sand				
		57					tan	fine-medium SAND	SP		0			
1335		58					tan/ orang							
	S-7	59					tan orange	(color change only)			0	0	0	0
		60								wet				
		61					tan	fine-medium SAND, micaceous			0			
8/16/10		62												
		63		19/			pink/ orange	fine-medium SAND		wet	0	0	0	0
		64		/20				trace silt, stringers of gray silty clay (1-3)			0			
		65												
		66												
		67					yellow/ brn	silty fine-medium SAND	SM		0	0	0	0
		68												
		69									0			
		70				loose	tan	fine-medium SAND	SP	wet				
		71						trace silt - micaceous			0	0	0	0
		72												
		73								wet	0			
		74												
	√	75									0	0	0	0

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3016
DATE: 8-15-10
GEOLOGIST: Voice Shickora J. Lambert
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (FL) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time													
(S-7)	76				loose	tan	fine-medium SAND, trace silt-micaceous	SM	wet	0	0	0	0
	77												
0854	78				sl. loose	lt orange	fine-medium SAND, some silt			0			
S-8	79					orange	fine-medium SAND, trace silt (micaceous)			0	0	0	0
	80												
	81								wet				
	82		17.5							0			
	83		20							0	0	0	0
	84												
	85					dk yello	silty fine-medium SAND		wet	0			
	86												
	87									0	0	0	0
	88												
	89									0			
	90												
	91								wet				
	92									0	0	0	0
	93												
	94									0			
	95				dense	purple/tan	layered varved fine SAND and SILT, trace clay						
	96				sl. loose	tan	silty fine-medium SAND		wet	0			
	97				dense	purple/tan	varved fine SAND and SILT, trace clay						
0933	98				sl. loose	tan	fine-medium SAND, some silt (micaceous)			0	0	0	0
S-9	99												
	100												

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: (See page 1)

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3010
DATE: 8-15-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
(S-9)	101				sl. loose	tan	fine-medium SAND, some silt	SM	wet	0	0	0	0
	102		9/										
	103		10		sl. dense	brn	silty fine SAND with stringers of gray silty CLAY	SC		0			
	104					tan/ orange red	layered bands of silty fine-medium SAND	SM		0	0	0	0
	105												
	106								wet	0	0	0	0
	107												
8954	108				sl. loose	tan	silty fine-medium SAND			0			
S-10	109				dense		silty CLAY, some fine sand	SC					
	110				sl. loose		fine-medium SAND some silt (micaceous)	SM	wet	0			
	111												
	112				dense		silty CLAY, some fine sand	SC		0	0	0	0
	113		8.5/		sl. dense	tan/ orange	silt and fine SAND layered with orange (some orange layers)	SM					
	114		10							0			
	115								wet				
	116									0	0	0	0
	117												
1032	118									0			
S-11	119												
	120		18/		dense	gray	silty CLAY, ~~some fine sand~~	SC		0	0	0	0
	121		20		sl. dense	tan/ gray	silty fine-medium SAND	SM	wet	0			
	122												
	123												
	124									0	0	0	0
	125												

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSJ-SB3010
DATE: 8-15-10
GEOLOGIST: ~~Kyle Shrockna~~ J. Lambert
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time													
(S-11)	126				sl. dense	tan/brn	silty fine-medium SAND	SM	wet	0	0	0	0
	127				↓					0			
	128				↓								
	129				dense	tan	silty CLAY, some fine sand	SC		0			
	130												
	131				sl. loose	yellow	fine-medium SAND, micaceous	SP	wet	0	0	0	0
	132				↓		↓						
	133				↓		↓			0			
	134				↓		↓						
	135				↓	dk grey	(color change only)			0	0	0	0
	136				↓		↓		wet				
	137				↓		↓			0			
1342	138				↓		↓						
S-12	139				v. loose	tan	fine-medium SAND			0	0	0	0
	140				↓		↓						
	141		3.5		↓		↓			0			
	142		/10		↓		↓						
	143				↓		↓			0	0	0	0
	144				↓		↓						
	145				↓		↓						
	146				↓		↓			0			
8/16/10 1452	147				↓		↓						
1466	148				↓		↓			0	0	0	0
S-13	149				↓		fine-medium SAND, micaceous						
8/17/10	150				↓		↓						

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: (see page 1)

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3010
DATE: 8/15/10
GEOLOGIST: ~~Vince Shickora~~ J. Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-13	151				V. loose	tan	fine-medium SAND, micaceous	SP		0	0	0	0
		152		19.5						wet	1			
		153		/20							0			
		154												
		155									0	0	0	0
		156					orange/ gray	fine-medium SAND						
		157								wet	0			
		158												
		159					tan to orange	fine-medium SAND trace silt			0	0	0	0
		160												
		161					orange				0			
		162				dense	tan-gray	silty fine SAND, some medium sand	SM	wet				
		163									0	0	0	0
		164						with some orange lenses 163 - 165'						
		165									0			
		166												
		167								wet				
1125		168									0	0	0	0
	S-14	169				SL. loose		fine-medium SAND, some silt						
		170									0			
		171		19										
		172		/20						wet	0			
		173					orange	fine-medium SAND, trace silt						
		174									0	0	0	0
		175				dense	tan	silty CLAY	SC					

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: (See page 1)

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSL-SB3010
DATE: 8-15-18
GEOLOGIST: ~~Vince Shuckra~~ J. Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	(S-14)	176				3' loose	orange	fine-medium SAND, trace silt (micaceous)	SP		0	0	0	0
		177								wet				
		178									0			
		179												
		186				dense	tan	silty fine SAND	SM		0	0	0	0
		181					orange	layered (almost varved)		wet				
		182									0			
		183												
		184									0	0	0	0
		185												
		186				sl. loose	tan	fine-medium SAND micaceous, trace silt	SP	wet	0			
		187												
1210		188									0	0	0	0
	S-15	189			*	dense		silty fine SAND layered tan/orange	SM	VOC sample set 188-188.5'				
		190									0			
		191												
		192		10/						wet	0	0	0	0
		193		/10										
		194									0			
		195												
		196				loose		fine-medium SAND, trace silt (micaceous)	SP	wet				
		197									0	0	0	0
1239		198												
		199			E&B									
		200												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3010
DATE: 10-15-10 / 10-16-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time	176												
	177												
	178												
	179												
	180												
	181												
	182												
	183												
	184						See Boring Log						
	185						for 0' to 198' BGS						
	186						completed on 8-18-10						
	187												
	188												
	189												
	190												
	191												
	192												
	193												
	194												
	195												
	196												
	197												
	198												
S-1	199					Brn Gry	VF/F Sand - little Silt - micaceous		wet	0	0	0	0
10/16/10 1006 ↓	200												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse,read.

Drilling Area Background (ppm): 0

Remarks: Direct push from 0' to 198' BGS (6" casing only)

Converted to Well: Yes ✓ No _____ Well I.D. #: BPSI-MW302D

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versasonic

BORING No.: BPSI-SB3010
DATE: 10-16-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		201					Gry Tan	VF/F Sand - little silt (micaceous)		wet	0	0	0	0
		202												
		203									0	0	0	0
		204					Gry Tan							
		205						Same as above		wet	0	0	0	0
		206					Tan							
		207		9.8'			org				0	0	0	0
		208		10.0'			org	(Trace M Sand)		wet				
1048	S-2	209									0	0	0	0
		210					Tan Gry							
		211								wet	0	0	0	0
		212					Gry Tan							
		213									0	0	0	0
		214						Same as above		wet				
		215				dense	Gry Brn	Clay - little silt			0	0	0	0
		216												
		217		9.9'			Gry Tan	VF/F Sand - Trace Silt (micaceous)		wet	0	0	0	0
1130		218		10.0'										
		219			EoB									
		220												
		221												
		222												
		223												
		224												
		225												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see Page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3011
DATE: 8-18-10
GEOLOGIST: J. Lambert
DRILLER: Jon Kiefer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
							(asphalt)						
S-1	1				sl. loose	brn	fine-coarse SAND and GRAVEL (fine)	SW	dry	0	0	0	0
	2												
	3		2.5/							0			
	4		/4.6										
	5		(4-10'							0			
	6		core)						dry				
	7									0	0	0	0
1228	8												
S-2	9					tan	(color change only)			0	0	0	0
	10												
	11		5.5/						dry	0			
	12		/10										
	13									0	0	0	0
	14					lt brn	fine-coarse SAND						
	15									0			
	16								dry				
	17									0	0	0	0
1245	18												
S-3	19						fine SAND, some silt, trace medium sand micaceous	SM		0			
	20												
	21								damp	0	0	0	0
	22												
	23									0			
	24												
	25					orange	(color change only)			0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes ✓ No _____ Well I.D. #: BPSI-TW3011

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3011
DATE: 8/18/10
GEOLOGIST: Trace, Stickford, J. Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		26				sl. loose	tan	fine SAND, trace silt, trace medium sand (micaceous)	SP	moist	0	0	0	0
		27					orange				0			
1305		28						fine-medium SAND, trace silt (micaceous)			0			
	S-4	29		9.7										
		30		/10							0	0	0	0
		31				loose	tan	fine SAND and SILT, trace clay, ~~trace fine sand~~	SM	moist				
		32				sl. loose	H orange	fine-medium SAND, some silt (micaceous)			0			
		33												
		34									0	0	0	0
		35												
		36				sl. dense	tan	silty fine SAND			0			
		37				sl. loose	orange	fine-medium SAND, trace silt (micaceous)		moist-wet				
1318		38									0	0	0	0
	S-5	39				loose								
		40		4.5/						wet (from drilling)	0			
		41		/10							0	0	0	0
		42												
		43												
		44								water table appears to be about 45-48'	0			
		45												
		46									0	0	0	0
		47												
		48									0			
1333	S-6	49		9.5/		sl. loose	tan	fine-medium SAND trace silt	SP	wet 48.5-49' VOC sample	0	0	0	0
		50		/10										

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.:
DATE:
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	5-6	51				sl. loose	tan	fine-medium SAND trace silt	SP		0	0	0	0
		52									0			
		53												
		54					dk pink	(color change only)			0	0	0	0
		55												
		56					orange	fine-medium SAND, trace silt (micaceous)			0			
		57												
		58					orange					0	0	0
		59			EOB 56'									
		60												
		61												
		62												
		63												
		64												
		65												
		66												
		67												
		68												
		69												
		70												
		71												
		72												
		73												
		74												
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm):

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of ___

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3011
DATE: 10-13-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	51						↑						
	52						See Boring log						
	53						For 0' to 58' BGS						
	54						completed on						
	55						8-18-10						
	56				VR	Red Tan							
	57												
	58						↓						
S-1	59					Red Tan	F/M Sand - little C sand Trace Silt (Micaceous)		wet	0	0	0	0
	60												
	61									0	0	0	0
	62					Red Tan							
	63								wet	0	0	0	0
	64						↓						
	65					Red Tan	Same as above			0	0	0	0
	66						↓		wet				
	67					Brn Tan				0	0	0	0
	68						↓						
	69					Brn Tan	Same as above			0	0	0	0
	70					Red Brn	VF/F Sand - Trace M Sand and Silt		wet				
	71					Tan	↓			0	0	0	0
	72												
	73					Red	↓			0	0	0	0
	74					Brn Tan	Same as above		wet				
	75									0	0	0	0

TIME
8/18/10
10/13/10 1032

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: Direct push from 0' to 58' BGS (6" casings only)
4" x 6" Sonic sampling from 58' to Total depth

Converted to Well: Yes ✓ No ___ Well I.D. #: BPSI-MW3031

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3011
DATE: 10-13-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-1	76					Gry Brn	Silty VF/F Sand (micaceous)		wet	0	0	0	0
		77		14.3'				↓						
	↓	78		20.0'			Red Brn	F/M Sand - little C Sand Trace Silt.		wet	0	0	0	0
1105	S-2	79						↓						
	↓	80					Red Brn	↓			0	0	0	0
		81						↓		wet				
		82					Brn Tan	↓			0	0	0	0
		83						Same as above		wet				
		84					Red Brn	Clayey Silt - Trace VF Sand			0	0	0	0
		85					Gry	(micaceous) (mottled)						
		86						↓		wet	0	0	0	0
		87					Red	↓						
		88					Brn Gry	↓			0	0	0	0
		89						Same as above		wet				
		90					Red	↓			0	0	0	0
		91					Brn Gry	↓						
		92						↓		wet	0	0	0	0
		93					Red	↓						
		94					Brn Gry	↓			0	0	0	0
		95						Same as above		wet				
		96					Gry	Clay - Some silt			0	0	0	0
		97		19.0'										
1140	↓	98		20.0'			Gry Brn	VF/F Sand - Trace M Sand and Silt		wet	0	0	0	0
1310	S-3	99						↓						
	↓	100						↓						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See Page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa-Sonic

BORING No.: BPS1-SB3011
DATE: 10-13-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		101					Gry Brn	VF/F Sand - Trace M Sand and Silt		wet	0	0	0	0
		102						(micaceous)						
		103					Gry				0	0	0	0
		104												
		105					Gry	Same as above		wet	0	0	0	0
		106					Gry	Silty Clay - Trace F Sand		wet				
		107					Brn				0	0	0	0
		108					Brn Gry	Clay - Some Silt Trace F Sand		wet				
		109						(mottled)			0	0	0	0
		110												
		111					Brn Gry	Same as above		wet	0	0	0	0
		112												
		113						(more F Sand)			0	0	0	0
		114												
		115					Brn Gry	Same as above		wet	0	0	0	0
		116					Brn Gry	VF/F Sand - Trace Silt (micaceous)						
		117		18.9'							0	0	0	0
		118		20.0'			Gry			wet				
1455	S-4	119									0	0	0	0
		120												
		121					Brn Gry	Same as above			0	0	0	0
		122						Silty VF/F Sand (micaceous) (mottled)		wet				
		123					Brn Gry				0	0	0	0
		124												
		125								wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3011
DATE: 10-13-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keiter

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time													
	126					Brn Gry	Silty VF/F Sand (micaceous) (mottled)		wet	0	0	0	0
	127						↓						
	128					DK Brn	(Trace m sand)			0	0	0	0
	129			- - -		Gry	Same as above		wet				
	130					Tan	VF/F Sand - Trace m Sand and Silt (micaceous)			0	0	0	0
	131						↓						
	132									0	0	0	0
	133					Tan			wet				
	134					Gry				0	0	0	0
	135						(Same)						
	136					Gry				0	0	0	0
	137		17.4'						wet				
↓	138		20.8'			Gry				0	0	0	0
1537 S-5	139						Same as above						
	140									0	0	0	0
	141					Gry			wet				
	142									0	0	0	0
	143												
	144					Brn Gry				0	0	0	0
	145						Same as above		wet				
	146					Tan Brn				0	0	0	0
	147												
	148					Gry Tan				0	0	0	0
	149												
↓	150					Gry Tan	↓ (Same)		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa-Sonic

BORING No.: BPS1-SB3011
DATE: 10-13-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time	151						VF/F Sand - Trace M Sand and silt (micaceous)		wet	0	0	0	0
	152					Brn Tan							
	153									0	0	0	0
	154												
	155					DK	Same as above		wet	0	0	0	0
	156					Brn org							
10/13/10	157		19.8'				(Few thin clay lenses)			0	0	0	0
	158		20.0'			Gry Brn			wet				
1630	S-6 159						Same as above		wet	0	0	0	0
10/14/10 0757	160					Brn org	F/M Sand - Trace silt, C Sand and F pebbles						
	161									0	0	0	0
	162												
	163					org Tan	VF/F Sand - Trace M sand and silt (micaceous)		wet	0	0	0	0
	164												
	165					Brn Tan				0	0	0	0
	166												
	167								wet	0	0	0	0
	168					Red Tan							
	169									0	0	0	0
	170								wet				
	171					Brn Red	Same as above			0	0	0	0
	172					Red	Silty VF/F Sand - little clay						
	173					Brn Gry				0	0	0	0
	174						(Few thin clay lenses)		wet				
	175									0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3011
DATE: 10-19-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		176					Gry Tan	VF/F Sand - Trace Silt (micaceous)		wet	0	0	0	0
		177		17.9'										
		178		20.0'							0	0	0	0
0850	S-7	179												
		180					Brn Gry	Silty VF Sand - Trace clay (micaceous)		wet	0	0	0	0
		181						(mottled)						
		182									0	0	0	0
		183												
		184									0	0	0	0
		185					Brn Gry	VF/F Sand - Trace Silt (micaceous)		wet				
		186									0	0	0	0
		187					Gry							
		188					Red Gry				0	0	0	0
		189												
		190					Red Gry	Same as above		wet	0	0	0	0
		191												
		192						(Few thin clay lenses)			0	0	0	0
		193					Brn Gry							
		194									0	0	0	0
		195						Same as above		wet				
		196					Brn Gry				0	0	0	0
		197		19.1'				(little more silt)						
		198		20.0'			Gry Tan				0	0	0	0
0950	S-8	199												
		200					Gry Tan	Same as above		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: VersaSonic

BORING No.: BPSJ - SB3011
DATE: 10-14-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		201					Brn Tan	VF/F Sand - Trace Silt (micaceous)		wet	0	0	0	0
		202						↓						
		203						↓			0	0	0	0
		204					Brn org	Same as above		wet				
		205					Tan	Silty VF Sand			0	0	0	0
		206					Gry	(micaceous) Trace clay		wet				
		207		9.1'			Brn	VF/F Sand - Trace Silt and M Sand			0	0	0	0
		208		10.0'			Tan	(micaceous)		wet				
1052	S-9	209						↓			0	0	0	0
		210					Tan	Same as above		wet				
		211						↓			0	0	0	0
		212					Brn Tan			wet				
		213									0	0	0	0
		214						↓						
		215					Brn Tan	Same as above		wet	0	0	0	0
		216						↓						
		217		9.9'				(little silt)			0	0	0	0
		218		10.0'			Brn Tan			wet				
1143	S-10	219					Gry	↓			0	0	0	0
		220					org	Silty clay (mottled)		wet				
		221					Brn Gry				0	0	0	0
		222				dense	Gry Blk	Silt - little clay (micaceous)		moist				
		223						(lignite?)			0	0	0	0
		224												
		225				dense		↓		moist	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO - WE44
DRILLING COMPANY: MILLER
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3011
DATE: 10-14-10
GEOLOGIST: Vince Shickora
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time													
	226				dense	Gry Blk	Silt - little clay (micaceous)		moist	0	0	0	0
	227		10.0'	- - -		org Brn							
1300	228		10.0'			Gry	Clayey Silt - little F Sand		wet	0	0	0	0
	229			EoB									
	230												
	231												
	232												
	233												
	234												
	235												
	236												
	237												
	238												
	239												
	240												
	241												
	242												
	243												
	244												
	245												
	246												
	247												
	248												
	249												
	250												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: GTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3012
DATE: 8-9-10 → 8-19-10
GEOLOGIST: Vince ShicKora/J. Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0745	S-1	1				sl. loose	Brn	Silty Sand and F Gravel	SM	damp to moist	0	0	0	0
		2												
		3												
		4												
		5												
		6					Brn	fine-coarse SAND some gravel	SW	damp PS1-SB3012-0008	0	0	0	0
		7												
0949		8					lt brn	silty fine-coarse SAND, some fine gravel	SM	dry	0			
	S-2	9												
		10												
		11					gray	silty SAND and fine-coarse gravel		dry (cooked)	0			
		12												
		13					lt brn	SAND, some ~~trace~~ silt			0	0	0	0
		14		5				some f-coarse gravel						
1002		15									0			
		16												
		17		6.8/							0	0	0	0
1019		18		/100										
	S-3	19					med brn	med-coarse SAND trace silt, trace fine gravel	SP	moist	0			
		20												
		21												
		22									0	0	0	0
		23								moist				
		24		5.0/						PS1-SB3012-0002324	0			
		25		/10			lt brn	fine-med. SAND, trace silt, trace gravel						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 4"x6" Sonic from 0' to Total depth
-Groundwater grab samples collected at selected intervals

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB302
DATE: 8-9-10 → 8-14-10
GEOLOGIST: Vince Shickora/J. Lambert
DRILLER: Jon Keiter

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		26				sl. loose	lt brn	fine-medium SAND,	SP	moist	0	0	0	0
		27						trace silt, trace gravel						
1031	↓	28									0	0	0	0
	S4	29												
		30					lt brn orange	fine → medium SAND,			0			
		31						trace silt		moist				
		32		8 /							0	0	0	0
		33		10										
		34			*					PSI-SB302- 33-34	0			
		35												
		36									0	0	0	0
		37					lt brn orange	medium - coarse SAND trace silt						
	↓	38								moist	0	0	0	0
1052	S5	39			*					wet - water table at 39-48'				
		40												
		41								PSI-SB302-39-39.5 for VOC/PCB	0	0	0	0
		42		8.4										
		43		10										
		44									0			
		45												
1048/9/10		46									0	0	0	0
		47												
	↓	48		18.8			↓	↓			0			
1104	S6	49		20			lt	medium - coarse SAND						
8/10/10		50					brn	silty fine SAND	↓					

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BP81-SB3012
DATE: 8-9-10 → 8-14-10
GEOLOGIST: Vince Shickora / T. Lambert
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time													
(S-6)	51				loose		medium-coarse SAND, silt	SW					
	52				sl. loose		silty fine SAND	SM	wet				
	53						medium-coarse SAND						
	54					gray brn	v. fine SAND, some silt						
	55												
	56			mottled pink/gray									
	57								wet				
	58												
	59												
	60												
	61					lt brn	v. fine - medium SAND,	SP					
	62				dense sl. dense	gray	trace coarse gravel silty fine SAND	SM					
	63				sl. loose	orange brn	one clay lense at fine - coarse SAND	SC SW	wet				
	64					red							
	65												
	66						(color changes only)		wet				
	67					orange brn							
1707	68												
S-7	69				dense		silty clay	SC SW		0	0	0	0
	70				sl. loose - dense		lens @ 0.2' thick	↓ SC					
	71		17.4		sl. loose			SW		0			
	72		/20							0			
	73					lt brn							
	74									0			
	75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: (See page 1)

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB302
DATE: 8-9-10 → 8-14-10
GEOLOGIST: V. Shickora / J. Lambert
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
(S-7)	76				sl. loose	lt brn	fine-coarse SAND	SW	wet	0			
	77												
	78									0	0	0	0
	79												
	80									0			
	81												
	82									0	0	0	0
	83				loose	pink	fine-medium SAND	SP					
	84					grading				0			
	85					to dk pink							
	86					dk pink				0			
	87												
0850	88									0	0	0	0
S-8	89		8.8			~~med~~ red	fine SAND trace						
	90		/10			brn	medium-coarse sand			0			
	91						(micaceous)						
	92									0	0	0	0
	93												
	94									0			
	95												
	96					lt brn				0			
	97												
1005	98									0			
S-9	99						(color change only)						
	100												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: ~~Ordnance~~ NWIRP Bethpage
PROJECT NUMBER: ~~112G01014-0330~~
DRILLING COMPANY: ~~Talon Drilling~~ Miller
DRILLING RIG: Versa-Sonic

BORING No.: BPS1-SB3012
DATE: 8-9-10 → 8-14-10
GEOLOGIST: J. Lambert
DRILLER: J. Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
S-9	101				loose	lt brn	fine-medium SAND,	SP		0			
	102						trace silt, micaceous						
	103									0	0	0	0
	104												
	105									0			
	106												
	107		15/							0	0	0	0
	108		20										
	109									0			
	110												
	111									0	0	0	0
	112			*					* VOC sample set-112-11B'				
	113				ex. loose	black	organic-rich silt almost shale/lignite like	SC		0			
	114												
	115									0	0	0	0
8/11/10	116												
	117									0			
1530	118												
S-10	119						NO RECOVERY						
8/12/10	120										0	0	0
	121												
	122												
	123										0	0	0
	124												
	125												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPSI-SB3012
DATE: 8-9-10 → 8-14-10
GEOLOGIST: Vince Shickora / JJ Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-1	126						NO RECOVERY						
8/12		127										0	0	0
		128												
0835	S-11	129												
		130												
8/13		131				dense	gray	silty clay fine sandy	SM	wet	0			
		132		2/				SILT, some clay						
		133		/10							0	0	0	0
		134												
		135									0.2			
		136								wet				
		137									0	0	0	0
		138												
0950	S-12	139		8.5		loose	gray	fine SAND, micaceous,	SP	wet	0			
		140		/10				trace silt						
		141									1.0	0	0	0
		142								wet				
		143									7.9			
		144												
		145				sl. dense		silty fine SAND,	SM		5.8	0	0	0
		146				sl. loose		fine - medium SAND, trace clay	SP	wet		sl. odor		
		147												
		148									0	0	0	0
	S-13	149												
		150												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BPS1-SB3012
DATE: 8-9-10 → 8-14-10
GEOLOGIST: Vince Shickora / J Lambert
DRILLER: Jon Keifer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time													
S-13	151				Sl. loose	lt brn	fine - medium SAND	SP	wet	0	0	0	0
	152		9/				(micaceous)						
	153		/10							0			
	154												
	155									0	0	0	0
	156								wet				
	157					yellow-brn	(color change			0			
BGD	158						(early)						
S-14	159									0	0	0	0
	160												
	161								wet	0	0	0	0
	162		16/										
	163		/20							0			
	164									0			
	165					red/yellow) – (mottled)				0	0	0	0
	166					brown			wet				
	167					orange	fine - medium SAND, trace silt	SP		0			
	168												
	169				plastic	white	silty CLAY seam -	SC		0	0	0	0
	170				Sl. loose	orange	fine - medium SAND < 1mm thick	SP					
	171					tan	trace silt		wet	0			
	172												
	173									0	0	0	0
	174												
	175									0			

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: (See page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa-Sonic

BORING No.: BPSI-SB-3012
DATE: 8/9/10 → 8/14/10
GEOLOGIST: Vince Shickora/J. Lambert
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		176				sl. loose	tan	fine-medium SAND	SP	wet	0			
		177						trace silt						
613		178									0	0	0	0
	S-15	179					tan	fine-medium SAND						
		180						trace silt			0			
		181												
		182									0	0	0	0
		183		19/20										
		184									0			
		185												
		186									0	0	0	0
		187												
		188									0			
		189												
		190									0	0	0	0
		191												
		192					mot. orange	fine-medium SAND trace silt			0			
		193				plastic sl. loose	gray mot. orange	<1mm gray CLAY lens @ fine-medium SAND	SC SP					
		194					tan	(color change only)			0	0	0	0
8/13/10		195												
		196									0			
		197												
1700		198									0	0	0	0
	S-16	199					tan							
8/14/10		200					tan	silty CLAY, trace fine sand	SC		0			

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (See page 1)

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: CTO-WE44
DRILLING COMPANY: Miller
DRILLING RIG: Versa Sonic

BORING No.: BP SI-SB3012
DATE: 8-9-10 → 8/13/10
GEOLOGIST: Vince Shickosa
DRILLER: Jon Keifer

Time	Sample No. and Type or RQD	Depth (FL) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	(S-16)	201				sl. loose	orange	silty fine-medium SAND	SM		0			
		202				v. dense	orange	CLAY some silt-	SC	# VOC sample (S01)				
		203			*	ex. dense	black	platy interbedded w/ fine-grained SHALE breaks easily	MD OS	moist	0	0	0	0
		204												
		205									0			
		206												
		207									0	0	0	0
0955		208												
		209			TOB									
		210												
		211												
		212												
		213												
		214												
		215												
		216												
		217												
		218												
		219												
		220												
		221												
		222												
		223												
		224												
		225												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: (see Page 1)

Converted to Well: Yes _____ No _____ Well I.D. #: _____

SOIL SAMPLE LOG SHEETS

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3004-27.5280
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-13-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1656	27.5-28.0' bgs	~~organ~~ orangish-brown	F-M sand tr. C. sand moist
Method: Grab (hand trowel)			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only Rush TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM ~~clear glass~~ poly	yes	
Field PCB Test kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3004-34,034.5
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0822	34.0-34.5' bgs	Red Brn	F/C sand w/ F gravel tr. silt and C. gravel very moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only Rush TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM clear glass ~~poly~~	yes	
Field PCB Test kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30~~04-37.5~~37.037.5Q
Sample Location: BPS1-SB30~~04~~
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0825	37.0-37.5' bgs	Red Brn	F/C sand w/ F gravel tr. silt and C. gravel
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	~~no~~	
PCB and DRO	250 mL WM clear glass	~~no~~	
TOC and % TS	125 mL WM clear glass	~~no~~	
PCB only Rush TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM clear ~~glass~~ poly	yes	
Field PCB Test kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3004-42.0425
Sample Location: BPS1-SB3004
Sampled By: SB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0841	42.0-42.5' bgs	Brn tan	F/M sand some thin clay lenses-tr. F gravel (micaceous) very moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only Rush TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM clear glass poly	yes	
Field PCB Test kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 04 - 47.0-47.5
Sample Location: BPS1-SB30 09
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0845	47.0-47.5' bgs	Gray tan	F. sand little M sand tr. silt very moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only Rush TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM clear ~~glass~~ poly	yes	
Field PCB Test kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3004-490495
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0914	49.0-49.5' bgs	Gray tan	F. sand, little M sand, tr. silt, very moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only Risk TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM clear glass poly	yes	
Field PCB Test kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3004-54.0545
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10 / Time: 0919 / Method: Hand trowel / Monitor Reading (ppm): 0	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	54.0-54.5' bgs	orange,tan, brn	F/M sand-little C. sand tr. silt wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear ~~glass~~ poly	no	
Field PCB Test kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3004-64.565.0
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1117	64.5-65.0' bgs	Gray Brn Orange	Silty F/M sand tr. C. sand wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear ~~glass~~ poly	no	
Field PCB Test Kit	125mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3004-116.0116.5
Sample Location: BPS1-SB30
Sampled By: JB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1317	116.0-116.5' bgs	Tan gray	VF/F sand some silt tr. M sand and clay (micaceous) wet
Method: Hand Trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	yes	
%TS only	125 mL WM poly	yes	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3004-154.0154.5
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1556	154.0-154.5' bgs	Brn gray	silty VF sand - some clay (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear ~~glass~~ poly	no	
Field PCB Test Kit	125 mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Jack Bickett

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of___

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3004-180190
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: ~~7-14-10~~	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1745			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

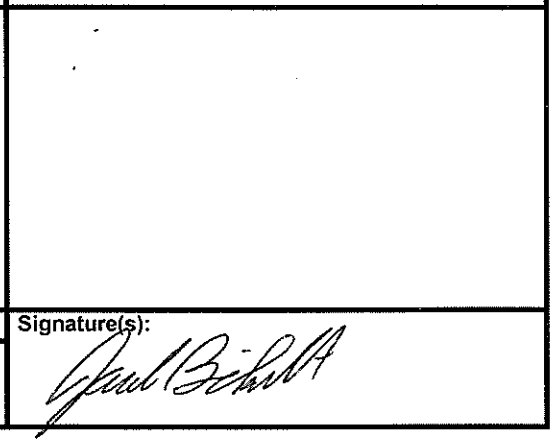
Date: 7-14-10	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
		180 - 186.75	Red orange tan	VF/F sand tr. silt and M sand (micaceous) wet
Method:		186.75 - 187.5	Orange Brn	F/M sand tr. silt wet
Time 1740		187.5 - 190	Gray Tan	VF/F sand tr. silt (micaceous) wet
Monitor Readings				
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	yes	
%TS only	125 mL WM poly	yes	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3004-235.0235.5
Sample Location: BPS1-SB3004
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-15-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1132	235.0-235.5	DK Brn	F/M sand some C sand and gravel tr. silt wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3005-27.528.0
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1051	27.5-28.0' bgs	Tan Brn	F. sand little M/C sand tr. silt moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only 24 Hr Rush TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM poly	yes	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3005-34.0345
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1125	34.0-34.5	orange brn	F/C sand and F/M gravel little silt wet
Method: Hand trowel			
Monitor Reading (ppm): 0.4			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only 24 Hr Rush TAT	250 mL WM clear glass	yes	
%TS only	125 mL WM poly	yes	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005-37.538.0
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1115	37.5-38.0' bgs	Tan Brn	F/M sand some C. sand and F. gravel tr. silt moist
Method: hand trowel			
Monitor Reading (ppm): 1.8			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005-43.043.5
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10	Depth Interval	Color	Description (Sand, Silty, Clay, Moisture, etc.)
Time: 1216	43.0-43.5' bgs	Gray tan	silty F. sand- some clay tr. M/C sand w/gravel moist
Method: Hand trowel			
Monitor Reading (ppm): 0.4			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	yes	
%TS only	125 mL WM poly	yes	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005-49.049.5
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1222	49.0-49.5' bgs	Gray tan	F/M sand tr. silt and C sand moist
Method: Hand trowel			
Monitor Reading (ppm): 3.2			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	Yes	
%TS only	125 mL WM poly	Yes	
Field PCB Test Kit	125 mL clear glass	Yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005- 54.5552
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1201	54.5-55.0' bgs	Orange tan	F/M sand tr. silt and C. sand wet
Method: Hand trowel			
Monitor Reading (ppm): 30.2			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005-57.558.0
Sample Location: BPS1-SB3005
Sampled By: VS
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10 / Time: 1227 / Method: Hand trowel / Monitor Reading (ppm): 37.1	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	57.5 - 58.0' bgs	Gray tan	M sand - some F. sand and tr. silt wet

COMPOSITE SAMPLE DATA:

Date: / Method: / Monitor Readings (Range in ppm):	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only 24 HR TAT	250 mL WM clear glass	Yes	
%TS only	125 mL WM poly	Yes	
Field PCB Test Kit	125 mL clear glass	Yes	

OBSERVATIONS / NOTES:

Oil/solvent type odor observed

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005-94.5950
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.: ___

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other: ___
[] QA Sample Type: ___

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-16-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1455	94.5-95.0 bgs	Red	VF/F Sand some silt tr. F pebbles (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	
PCB and %TS	250 mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
~~MS/MSD~~	~~Duplicate ID No.:~~

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005-1450/1455
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-17-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0849	154.0-154.5' bgs	Brn tan	VF/F sand tr silt and M sand wet
Method: Handtrowel			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: BPS1-Dup01-20100717 Time 1200

Signature(s):

VOCs and GRO, PCB and DRO, TOC and %TS

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3005-180190
Sample Location: BPS1-SB3005
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-17-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1036	180-190' bgs	Brn Tan gray	VF/F sand little to trace silt (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
7-17-10		180-183	Brn Tan gray	VF/F sand little to trace silt (micaceous) wet
Method:		183-185.25	Brn gray	silty clay trace VF sand (micaceous) mottled wet
Hand trowel		185.25-190	tan gray red	VF/F sand some silt (micaceous wet
Monitor Readings				
(Range in ppm):				
0				
Time 1036				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	NO	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM poly	No	
Field PCB Test Kit	125 mL clear glass	yes	
PCB %TS	250mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30-05-232.5-233.0
Sample Location: BPS1-SB30-05
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-17-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1217	232.5-233.0' bgs	Brn tan	VF/F sand little to trace silt (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 0.4			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes x2	
PCB and DRO	250 mL WM clear glass	yes x2	
TOC and % TS	125 mL WM clear glass	yes x1	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

directly above gray clay layer

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3006-320325
Sample Location: BPS1-SB3006
Sampled By: JB
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-27-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0946	32.0-32.5' bgs	Brown gray	Clayey silt fr. F. Sand moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear glass	no	
Field PCB kit	125mL clear glass	yes	
PCB and %TS	250mL clear glass	yes	

OBSERVATIONS / NOTES:

Field PCB Test kit showed PCB at 11.1 mg/kg

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.: Time 1200
BPS1-Dup03-20100727

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB30 06-53.053.5
Sample Location: BPS1-SB30 06
Sampled By: JB
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-27-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1045	53.0-53.5' bgs	orange brown	M sand little C sand tr. F sand and silt very moist
Method: Hand trowel			
Monitor Reading (ppm): 2.1			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

Water table at 54' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3006-72.0725
Sample Location: BPS1-SB3006
Sampled By: JB
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-27-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1242	72.0-72.5 bgs	Gray, tan, brn	F/M sand little C sand tr. silt wet
Method: Hand trowel			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear glass	no	
PCB + %TS	250mL clear glass	yes	
Field PCB kit	125mL clear glass	yes	
		X	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 06-117.0117.5
Sample Location: BPS1-SB30 06
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-27-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1453	117.0 - 117.5' bgs	Red, gray, tan	VF/F sand tr. silt (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 1.2			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3006-181018I5
Sample Location: BPS1-SB3006
Sampled By: JB
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-28-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0843	181.0-181.5' bgs	JB 7-28-10 ~~orange~~ brown gray	Silty VF Sand (micaceous) wet
Method: Hand Trowel			
Monitor Reading (ppm): 0.4			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear ~~glass~~ poly	no	
Field PCB kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.: Time 1200
BPS1-SB Dup02-20100728

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3006-226522?0
Sample Location: BPS1-SB3006
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-28-10 / Time: 1038 / Method: Hand trowel / Monitor Reading (ppm): 0.9	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	226.5-227.0' bgs	Brn-Gray and Gray	VF/F sand, trace silt (micaceous) wet and Clay little silt (micaceous) wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear ~~glass~~ poly	no	
Field PCB kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3007-37.5380
Sample Location: BPS1-SB3007
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-29-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0952	37.5-38.0' bgs	Brn gry	VF Sandy silt (micaceous) Few thin clay lenses moist
Method: Hand trowel			
Monitor Reading (ppm): 3.0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3007-57.057.5
Sample Location: BPS1-SB3007
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-29-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1037	57.0-57.5' bgs	Tan Brn	F/C sand tr. silt and F. pebble wet
Method: Hand trowel			
Monitor Reading (ppm): 4.2			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

water table @ 54' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3007-100.0100.5
Sample Location: BPS1-SB3007
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-29-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1324	100.0-100.5' bgs	Brn Gray	Silty VF sand tr. clay (micaceous) mottled wet
Method: Hand trowel			
Monitor Reading (ppm): 2.9			

COMPOSITE SAMPLE DATA:

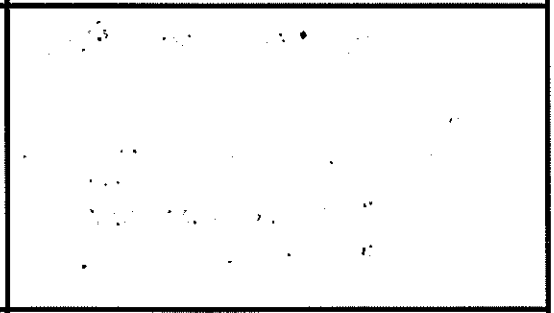
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	Yes	
PCB and DRO	250 mL WM clear glass	Yes	
TOC and % TS	125 mL WM clear glass	Yes	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM poly	No	
Field PCB Test Kit	125 mL clear glass	Yes	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
~~MS/MSD~~	~~Duplicate ID No.:~~

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3007-140150
Sample Location: BPS1-SB3007
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
7-29-10	1519	140-141	Gray	Clay tr. silt wet
Method: Hand trowel		141-143	Tan-Brn, Red-Brn	VF/F sand tr. silt (micaceous) wet
		143-146.25	Orange-Brn-Gray	Silty VF sand trace clay (micaceous) mottled wet
Monitor Readings (Range in ppm): 0		146.25-150	Brn Gray Tan	VF/F sand tr. M sand and silt wet

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	NO	
PCB and DRO	250 mL WM clear glass	NO	
TOC and % TS	125 mL WM clear glass	NO	
PCB only	250 mL WM clear glass	NO	
%TS only	125 mL WM poly	NO	
Field PCB Test Kit	125 mL clear glass	yes	
PCB and %TS	250 mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
Yes	

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3007-217.5218c
Sample Location: BPS1-SB3007
Sampled By: JB
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-30-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0850	217.5-218.0' bgs	Brn Gray	VF/F sand little to trace silt (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 0.7			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3007-240250
Sample Location: BPS1-SB3007
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
7-30-10	1040	240-241	Brn-Orange	Silty VF sand (micaceous) wet
Method: Hand trowel		241-250	Brn-Org; Tan-Orange; Tan-Brn	VF/F sand little to trace silt (micaceous) wet
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	
PCB and %TS	250mL glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3008-37.037.5
Sample Location: BPS1-SB3008
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-2-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1013	37.0-37.5' bgs	Tan, Brn, Red	F/C sand little to trace F pebbles and silt very moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM poly	No	
Field PCB Test Kit	125 mL clear glass	Yes	
PCB + %TS	250 mL clear glass	Yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3008-52.0525
Sample Location: BPS1-SB3008
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-2-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1051	52.0-52.5' bgs		
Method: Hand trowel			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3008-86.587.0
Sample Location: BPS1-SB3008
Sampled By: JB
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-2-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1258	86.5-87.0' bgs		
Method: Hand trowel			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3008-161.0161.5
Sample Location: BPS1-SB3008
Sampled By: JB
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-2-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1535	161.0-161.5' bgs		
Method: Hand trowel			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3008-200210
Sample Location: BPS1-SB3008
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-3-10	0851	200-202	Org, Brn	VF/F sand little to tr. silt (micaceous) wet
Method:		202-206	Red, Brn, gray	Same
Hand trowel		206-209	Tan, Gray	VF/F sand little to tr. silt tr. M sand wet
Monitor Readings		209-210	Tan, Gray	VF/F sand little to tr. silt (thin clay lense) wet
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM poly	No	
Field PCB Test Kit	125 mL clear glass	yes	
PCB and %TS	250mL clear glass	Yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3008-234.5235.0
Sample Location: BPS1-SB3008
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-3-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0940	234.5-235.0' bgs	dg, Brn, gray	Silty VF sand-tr. clay (micaceous)
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	Yes	
PCB and DRO	250 mL WM clear glass	Yes	
TOC and % TS	125 mL WM clear glass	Yes	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM poly	No	
Field PCB Test Kit	125 mL clear glass	Yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 09-27.027.5
Sample Location: BPS1-SB30 09
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-31-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0945	27.0-27.5' bgs	org, brn, tan	VF/F sand - tr. silt and M sand (micaceous) moist
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM poly	No	
Field PCB Test Kit	125 mL clear glass	Yes	
PCB and %TS	1250mL glass	Yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3009-36.036.5
Sample Location: BPS1-SB3009
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-31-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1010	36.0-36.5' bgs	org, dk brn	silty VF sand damp to dry
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM poly	No	
Field PCB Test Kit	125 mL clear glass	yes	
PCB and %TS	250mL clearglass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3009-51.051.5
Sample Location: BPS1-SB3009
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-31-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1102	51.051.5' bgs	Red brn	F/M sand trace silt and C sand very moist
Method: Hand trowel			
Monitor Reading (ppm): 0.2			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

water table at 52' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.: Time 1200
—	BPS1-Dup04-20100731

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 09-96.0965
Sample Location: BPS1-SB30
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-31-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1332	96.0965	Red/brn, gray	silty VF sand (micaceous) (mottled) wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 09-140.0140.5
Sample Location: BPS1-SB30 09
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-31-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1515	140.0-140.5' bgs	Red grv	silty VF sand tr. clay (micaceous)(mottled) (thin clay base) wet
Method: Hand trowel			
Monitor Reading (ppm): 0.8			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass		
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30-209.0-209.5
Sample Location: BPS1-SB30
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-1-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0929	209.0-209.5' bgs	org Brn	VF/F sand tr. M sand and silt (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 3.6			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass		
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM poly	no	
Field PCB Test Kit	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB30 10-0008
Sample Location: BPS1-SB30 10
Sampled By: JB
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 8-15-10	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
		0-0.8'	brown	F-C sand and gravel dry
Method: Hand trowel		0.8-1.2'	black	asphalt
		1.2-8'	orange brown	F-C sand some gravel and cobbles dry
Monitor Readings (Range in ppm): 0				
Time 1050				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	
PCB %TS	250 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 10-49.049.5
Sample Location: BPS1-SB30 10
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-15-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1342	49.0-49.5' bgs	orange brown	F-M sand tr. silt (micaceous)
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	

OBSERVATIONS / NOTES:

water table at 49' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3010-5862
Sample Location: BPS1-SB3010
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: / Time: / Method: / Monitor Reading (ppm):	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-16-10		58-62	tan orange	F-M sand micaceous wet
Method:		62-66	pink orange	F-M sand tr. silt stringers of gray silty clay (~3")
Hand trowel		66-68	yellow brown	silty F-M sand wet
Monitor Readings				
(Range in ppm):				
0				
Time				
0902				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	
PCB %TS	250 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3010-93,594.0
Sample Location: BPS1-SB3010
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-16-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0941	93.5-94.0' bgs	Yellow	silty F-M sand wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	2 40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	2 250 mL WM clear glass	yes	
TOC and % TS	1 125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	no	

OBSERVATIONS / NOTES:

right above thin clay layer

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3010-118148
Sample Location: BPS1-SB3010
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-16-10		118-120	tan, orange	F. sand and silt wet
Method:		120-120.7	gray	Silty clay wet
Hand trowel		120.7-128	tan pink	silty F-M sand wet
Monitor Readings		128-130.5	tan	Silty clay some F. sand
(Range in ppm):		130.5-148	yellow, dk pink, tan	F-M sand wet
0				
Time 1502				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	NO	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	
PCB %TS	250mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3010-188.0188.5
Sample Location: BPS1-SB3010
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-17-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1245	188.0-188.5' bgs	tan (layered tan/orange)	Silty F. Sand
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 11-1823
Sample Location: BPS1-SB30 11
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-18-10		18-25'	light brown to orange	F. sand some silt tr. M. sand (micaceous) moist
Method:		25-26'	tan	F. sand. tr. silt and M. sand (micaceous) moist
Hand trowel		26-28'	orange	F-M. sand tr. silt (micaceous)
Monitor Readings				
(Range in ppm):				
0				
Time 1308				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM clear poly	NO	
Field PCB Jar	125 mL WM clear glass	Yes	
PCB %TS	250mL clear glas	Yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB301(-3848
Sample Location: BPS1-SB301(
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-18-10		38-48'	orange	F-M sand tr. silt (micaceous) moist to wet
Method: Hand trowel				
Monitor Readings (Range in ppm): 0				
Time 1335				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM clear poly	No	
Field PCB Jar	125 mL WM clear glass	yes	
PCB %TS	250mL clear glass	yes	

OBSERVATIONS / NOTES:

Water table appears to be about 45 48'
drilling water entered sample bag

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3011-48.549.0
Sample Location: BPS1-SB3011
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-18-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1350	48.5-49.0 ft	tan	F-M sand tr. silt wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB301 2-39.039.5
Sample Location: BPS1-SB301 2
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 3-9-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1130	39.039.5	light brown - orange	M-C sand tr. silt moist
Method: hand trowel + terra core			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	—	
TOC and % TS	125 mL WM clear glass	—	
PCB only	250 mL WM clear glass	—	
%TS only	125 mL WM clear glass	—	
DRO	250mL glass	yes	
TOC	125 mL glass	yes	

OBSERVATIONS / NOTES:

Water table ~40' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 12-4858
Sample Location: BPS1-SB30 12
Sampled By:
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-10-10		48-51	light brown	M-C sand
Method:		51-52	light brown	silty F sand wet
Hand trowel		52-53	light brown	M-C sand
Monitor Readings		53-58	gray/brown	VF sand some silt
(Range in ppm):				
0				
Time 1712				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear glass	~~yes~~ no	
PCB and %TS	250 mL clear glass	yes	
Field PCB jar	125 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 12-5868
Sample Location: BPS1-SB30 12
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-10-10		58-60'	mottled pink/gray	VF sand some silt wet
Method: Hand trowel		60-61'	light brown	VF-M sand tr. C gravel
1718		61.0-61.2'	gray	Clay
Monitor Readings		61.2		
(Range in ppm):				
0				
Time 1718				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	No	
PCB and DRO	250 mL WM clear glass	No	
TOC and % TS	125 mL WM clear glass	No	
PCB only	250 mL WM clear glass	No	
%TS only	125 mL WM clear glass	No	
Field PCB jar	125 mL clear glass	yes	
PCB and %TS	250 mL clear glass	yes	

OBSERVATIONS / NOTES:

Field PCB test kit showed concentration of n16mg/kg

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB3012-112.5113.0
Sample Location: BPS1-SB3012
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-11-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1535	112.5-113.0' bgs	light brown	F-M sand, tr. silt (micaceous) wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.: BPS1-Dup05-20100811 Time 1200

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 12-158168
Sample Location: BPS1-SB30 12
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-13-10		158-164	yellow brown	F-M sand (micaceous) wet
Method:		164-166	red yellow	F-M sand (mottled) wet
Hand trowel		166-168	brown orange	F-M sand tr. silt wet
Monitor Readings				
(Range in ppm):				
0				
Time 1617				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	no	
PCB and DRO	250 mL WM clear glass	no	
TOC and % TS	125 mL WM clear glass	no	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear glass	no	
Field PCB jar	125 mL clear glass	yes	
PCB %TS	250 mL clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1 PCB Investigation
Project No.: 112G02230

Sample ID No.: BPS1-SB30 12-203.0203.5
Sample Location: BPS1-SB30 12
Sampled By: JB
C.O.C. No.:

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 3-14-10	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0905	203.0 - 203.5' bgs	orange	Clay some silt interbedded w/F sand wet
Method: Hand trowel			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs and GROs	40 mL glass vial + 10mL MeOH	yes	
PCB and DRO	250 mL WM clear glass	yes	
TOC and % TS	125 mL WM clear glass	yes	
PCB only	250 mL WM clear glass	no	
%TS only	125 mL WM clear poly	no	
Field PCB Jar	125 mL WM clear glass	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

GROUNDWATER GRAB SAMPLING SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: GW Grab Sample
[] QA Sample Type:

Sample ID No.: BPSI-GW3010-5761
Sample Location: BPSI-SB3010
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 8-16-10 / Time: 0752	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Method: Grundfos RediFlow	light brown	6.18	0.077	20.48	2255	7.18	0.0	36

PURGE DATA:

Date: 8-16-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP	Time
Method: Grundfos RediFlow	DRILLING WATER	5.66	0.202	25.47	Pink 24.7	—	—	139	1210
Monitor Reading (ppm): —									
Well Casing Diameter & Material	0.5	5.46	0.116	22.04	brown	8.34	0.0	96	0746
Type: 2" screen casing 1½" scrn	3.5	6.18	0.077	20.48	light brown 2255	7.18	0.0	36	0750
Total Well Depth (TD): 61			Collect Sample						0752
Static Water Level (WL): 47									
One Casing Volume(gal/L):									
Start Purge (hrs): 0746									
End Purge (hrs): 0752									
Total Purge Time (min): 6									
Total Vol. Purged (gal/L): 3.5 gal									

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	—	2 1L amber glass	yes

OBSERVATIONS / NOTES:

0746 water level 47 Ft bgs
0750 53

clay around ~60.5' bgs
screen from 57-61' bgs

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Groundwater grab sample
[] QA Sample Type:

Sample ID No.: BPSI-GW3010-114118
Sample Location: BPSI-SB3010
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 8-16-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1232	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Grundfos Red: Flow	light brown tint	6.49	0.173	22.87	5521	—	0.0	-29

PURGE DATA:

Date: 8-16-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Red: Flow	See low	flow	purge	sheet				
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" well casing 1.5" S.S. well screen								
Total Well Depth (TD): 118								
Static Water Level (WL): —								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1219								
End Purge (hrs): 1232								
Total Purge Time (min): 13								
Total Vol. Purged (gal/L): 5.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 40mL glass vial	Yes
PCBs	—	2 1 L amber glass	Yes

OBSERVATIONS / NOTES:

Screened in silty sand
silt in sample when settles out a tan tint (not pink)

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-GW3010-114118
DATE: 8-16-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
8-16-10 1000	DRILLING	Water	6.52	0.120	28.3	—	26.39	133	0.0	Pink
1219	No water in GW sampler until screen exposed			Water level @ 99' bgs						
1221	101		6.43	0.174	8038	—	26.87	32	0.0	light brown
1223	102		6.51	0.171	Out of range	—	22.43	-25	0.0	" "
1226	104		6.46	0.169	5382	—	22.72	-32	0.0	" "
1230	106		6.49	0.173	5521	—	22.87	-29	0.0	" "
1232	108	Collect sample	sample							5.5 gal purged
		Fine silt	in sample	when settle	out slight	tan tint	(no pink)			

SIGNATURE(S):

PAGE 1 OF 1

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.:

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: GW Grab sample
[] QA Sample Type:

Sample ID No.: BPSI-GW3010-144148
Sample Location: BPSI-SB3010
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 8-17-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 0759	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Grundfos Redi Flow	slight tan tint	5.75	0.165	21.19	27.5	5.97	0.0	-23

PURGE DATA:

Date: 8-17-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Redi Flow	See low flow purge sheet							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: power plant 2" well casing 1½" SS screen								
Total Well Depth (TD): 148								
Static Water Level (WL): ~70'								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0749								
End Purge (hrs): 0759								
Total Purge Time (min): 10								
Total Vol. Purged (gal/L): 4 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	—	2 1L amber glass	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPSI-GWDup01-20100817

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-GW3010-144/48
DATE: 8-17-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0748	DRILLING	WATER	6.52	0.120	28.3	—	26.37	133	0.0	Pink
0749	Start purging	1000	5.26	0.217	103.7	6.28	20.75	83	0.0	slight tan tint
0753	70'	1000	5.47	0.178	32.2	6.28	20.49	39	0.0	" "
0757		1000	5.75	0.165	27.5	5.97	21.19	-23	0.0	4 gal
0759	Collect sample w/ Dup									

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-SB GW3010-144148
Site: Site 1
Date Installed: 8-16-10
Date Developed: 8-16-10
Dev. Method: Submersible
Pump Type: GrundFos RediFlow

Depth to Bottom (ft.): 148
Static Water Level Before (ft.):
Static Water Level After (ft.):
Screen Length (ft.): 4' by 2"
Specific Capacity:
Casing ID (in.): 4"

Responsible Personnel: J. Birkett, J. Lambert
Drilling Co.: Miller
Project Name: NWIRP Bethpage
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
	DRILLING WATER			26.37	6.52	0.120	28.3	133 ORP Start w/ 40' water in rods
1552	Start dev		~94'	26.12	7.11	0.179	Out of range	35 brown w/ pink tint
1600			103	25.70	8.30	0.178	6476	-3 light brown w/ pink tint
1608			Tape hung up	To 25.54	8.81	0.146	299	4 light pink slight brn tint (50%)
1618			" "	25.70	8.70	0.145	207	21 light pink slight tan tint (~50%)
1628			" "	26.26	8.68	0.153	201	16 " "
1638			138	26.83	8.85	0.164	259	1 " "
1639	Boring	Dry						
1713	Restart							
1714				25.34	8.53	0.187	664	-18 light brown
1717				24.35	8.50	0.185	359	-25 light tan slight pink
1725	Dry	~20% pick						

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: GW Grab Sample
[] QA Sample Type:

Sample ID No.: BPSI-GW3010-196200
Sample Location: BPSI-SB3010
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 8-17-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1734	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Grundfos Redi Flow	pinkish tan	8.36	0.198	29.85	1649	8.96	0.0	-4

PURGE DATA:

Date: 8-17-10	~~Time~~ Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other ORP
Method: Grundfos RediFlow	1726	7.84	0.197	27.84	1539	9.18	0.0	7
Monitor Reading (ppm): —	1732	8.36	0.198	29.85	1649	8.96	0.0	-4
Well Casing Diameter & Material	1734	Collect	sample	pinkish tan		(w 40%	dilution)	
Type: 2" well casing and 1½" SS screen								
Total Well Depth (TD): 200								
Static Water Level (WL): —								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1726								
End Purge (hrs): 1734								
Total Purge Time (min): 8								
Total Vol. Purged (gal/L): 3.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	—	2 1L amber glass	yes

OBSERVATIONS / NOTES:

Temp	pH	S.C.	Turb	ORP
30.85	8.47	0.137	27.8	36

DRILLING WATER
Purge water comes out in ~2 sec. surges then retreats for ~5 sec. then repeat
sample not taken above screen
GW samples were taken w/ pump around ~140' bgs
Sand 50' up in rods, S.S. screen in rods ~20 from bottom

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

Sample ID No.: BPSI-GW3012-4852
Sample Location: BPSI-SB3012
Sampled By: JL/VS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[X] Other Well Type: Temp. GW Grab
[ ] QA Sample Type:

SAMPLING DATA:

Date: 8-10-10	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP (mV)
Time: 1602								
Method: Low Flow	light brown	8.78	0.199	32.83	—	6.89	0.0	-106

PURGE DATA:

Date: 8-10-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	see low flow purge sheet							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2"x4' stainless steel								
Total Well Depth (TD): 52								
Static Water Level (WL): 46								
One Casing Volume(gal/L):								
Start Purge (hrs): 1540								
End Purge (hrs): 1602								
Total Purge Time (min): 22								
Total Vol. Purged (gal/L): 2 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40mL glass vial	Yes
PCBs	—	2-1L amber glass	Yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: —

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-GW3012-4852
DATE: 8-10-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
	DRILLING WATER		6.19	0.191	clear	7.78	25.80	669	0.0	Drilling water from 1500 gal tank
1540		150	9.21	0.204	brown	6.78	27.66	-85	0.0	
1545		150	9.62	0.207	brown	6.24	27.96	-124	0.0	recalibrate horiba
1550		150	~~6~~ 8.10	0.315	brown	6.64	31.32	-69	0.0	
1600		150	8.78	0.199	light brown	6.89	32.33	-106	0.0	
1602	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-GW3012-4852
Site: Site 1
Date Installed: 8-9-10 and 8-10-10
Date Developed: 8-9-10 and 8-10-10
Dev. Method: 2" submersible pump
Pump Type: GrundFos RediFlow

Depth to Bottom (ft.): 52
Static Water Level Before (ft.): -46
Static Water Level After (ft.): -46
Screen Length (ft.): 4
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: J. Birkett, J. Lambert, V. Shickora
Drilling Co.: Miller Drilling Company
Project Name: Bethpage Site 1 PCB Investigation
Project Number: 112G02230

DRILLING WATER 25.80 6.19 0.191 — ORP(mv)

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks ORP (mV)	Remarks (odor, color, etc.)
1540									
1545				24.54	4.73	0.275	Too turbid	122	brown
1605				19.97	5.31	0.071	261	147	
1615				19.19	4.58	0.058	89.4	184	
1630				19.01	4.47	0.048	58.7	197	
1645				20.03	4.51	0.045	85.3	194	
1700				19.29	4.49	0.042	42.4	198	
1719				19.35	4.09	0.042	27.9	224	
1745		200		19.41	4.44	0.040	5.01	200	
0751				17.79	5.93	0.045	40.9	401	
0806				17.43	5.77	0.040	54.3	256	
0834				17.90	5.87	0.036	6.90	244	
0856		325		17.75	5.80	0.034	10.26	254	
0917			~46' bgs	17.80	5.80	0.033	3.60	256	
0937				18.14	5.82	0.033	6.39	256	
0955				17.99	5.81	0.032	1.99	252	
1015				18.01	5.71	0.032	2.83	259	
1032		400		18.13	5.69	0.031	2.89	260	

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPS1-GW3012-4852
Site: Site 1
Date Installed: 8-9-10 and 8-10-10
Date Developed: 8-9-10 and 8-10-10
Dev. Method: submersible
Pump Type: Grundfos Redi Flow
Depth to Bottom (ft.): 52
Static Water Level Before (ft.): ~46' bgs
Static Water Level After (ft.): ~46' bgs
Screen Length (ft.): 4
Specific Capacity:
Casing ID (in.): 2"
Responsible Personnel: J. Birkett, J. Lambert, V. Shickora
Drilling Co.: Miller
Project Name: Bethpage Site 1 PCB Investigation
Project Number: 112G82230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1057				17.55	5.76	0.031	3.93	
1123				18.58	5.67	0.031	9.34	
1140				17.97	5.70	0.030	5.81	
1205		450		19.62	5.64	0.030	1.62	
1222				19.27	5.59	0.029	3.76	
1240		475		19.69	5.66	0.029	6.57	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

Sample ID No.: BPSI-GW3012-110114
Sample Location: BPSI-SB3012
Sampled By: JB
C.O.C. No.:

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: GW Grab Sample
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 8-12-10 / Time: 1530	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP (mV)
Method: Grundfos RediFlow	light pink	6.30	0.154	23.40	36.1	7.31	0.0	-49

PURGE DATA:

Date: 8-12-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos RediFlo	see low flow purge sheet							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2"x4' screen point								
Total Well Depth (TD): 114								
Static Water Level (WL): —								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1511								
End Purge (hrs): 1530								
Total Purge Time (min): 19								
Total Vol. Purged (gal/L): 6 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 40mL glass vial	Yes
PCBs	—	2 1L Amber glass	Yes

OBSERVATIONS / NOTES:

- Sample compared to drilling water standards of 100%, 50%, 25% is around 35%
- Flow rate could not be stabilized
- Drilling water used 100mL dye to 1500 gallons

Circle if Applicable:		Signature(s):
MS/MSD —	Duplicate ID No.: —	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Bethpage Site 1
PROJECT NUMBER: 112G02230
WELL ID.: BPS1-GW3012-110114
DATE: 8-12-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1511										
1513	~88' bgs		6.61	0.158	39.4	8.30	22.31	-60	0.0	
1518		2000	6.38	0.154	30.0	7.45	23.01	-29	0.0	
1523		300	6.36	0.154	33.8	7.04	23.17	-33	0.0	6 gal (total purged)
1528		100	6.30	0.154	36.1	7.31	23.46	-49	0.0	can't stabilize flow
1530	Collect	sample								

SIGNATURE(S):

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-GW3012-110114
Site: Bethpage
Date Installed: _____
Date Developed: 8-11-10
Dev. Method: Submersible pump
Pump Type: ~~Bladder~~ Grundfos RediFlow

Depth to Bottom (ft.): _____
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 4
Specific Capacity: _____
Casing ID (in.): _____

Responsible Personnel: Jenny Lambert + Jake Birkett
Drilling Co.: Miller
Project Name: NWIRP Bethpage Site 1 PCB investigation
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP
8-11-10	DRILLING WATER			32.74	4.38	0.566	22.4	light pink
8-12-10 0819	DRILLING WATER			25.39	4.82	0.288	27.8	light pink 457
1140			61	24.64	5.02	0.163	6251	brown (slight pink) -48
1155			73	24.48	5.82	0.163	311	pinkish light brown 1.5 gpm -85
1210			90	24.60	7.69	0.192	154	pink light -129
1225			102	25.20	7.63	0.197	243	pink light -151
1240			103	24.85	9.10	0.191	180	light pink 0.5 gpm -169
1255			Hole goes	dry	let recharge			
1335			84'				90.	
1340	Restart		9'	24.26	5.25	0.220	90.4	light pink (lighter than original) -47
1357				24.29	5.63	0.170	112	slightly lighter pink -87

1345-90

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

Sample ID No.: BPSI-GW3012-144813
Sample Location: BPSI-GW3012
Sampled By: JB
C.O.C. No.:

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: GW Grab Sample
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 8-13-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1358	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Grundfos Redi Flow	slight tan tint	6.73	0.158	20.87	102.7	6.68	0.0	-32

PURGE DATA:

Date: 8-13-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Redi Flow	see low flow purge sheet							
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" stainless steel w/ 15' int screen inside								
Total Well Depth (TD): 148								
Static Water Level (WL): ~50'								
One Casing Volume(gal/L):								
Start Purge (hrs): 1338								
End Purge (hrs): 1358								
Total Purge Time (min): 20								
Total Vol. Purged (gal/L): 6 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	7 40mL glass vials	yes
PCB		6 1L Amber glass	yes

OBSERVATIONS / NOTES:

F, sand pumped out of hole into sample
- No pink tint seen

Circle if Applicable:		Signature(s):
MS/MSD: yes	Duplicate ID No.: —	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPS1-GW3012-144148
DATE: 8-13-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1338										
1341	~~700~~ 450	700	6.35	0.156	85.9	7.94	23.55	12	0.0	slight tan tint
1345		400	6.44	0.152	56.8	7.55	23.00	6	0.0	" "
1350		600	6.61	0.152	537	6.72	21.71	0	0.0	" "F sand
1355		600	6.73	0.158	102.7	6.68	20.87	-32	0.0	" "
1358	Collect sample w/ MSMSD									

SIGNATURE(S):

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-GW3012-144148
Site: Site 1
Date Installed: _____
Date Developed: 8-13-10
Dev. Method: Submersible 2"
Pump Type: Grundfos Redi Flo

Depth to Bottom (ft.): 148
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 4' x 1" ID
Specific Capacity: _____
Casing ID (in.): 4"

Responsible Personnel: J. Birkett, J. Lambert
Drilling Co.: Miller
Project Name: NWIRP Bethpage Site 1 PCB Investigation
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP
1238	Flow	Water tank started w/~160 gal in it		23.39	5.78	0.153	30.5	153 DRILLING water Pink
1241	2 GPM		~~~60'~~ ~31'	23.73	5.72	0.261	61.1	136 pink
1246			~45'	23.39	6.84	0.170	582	56 pink
1257	1 GPM	20 gal	~53'	24.35	8.23	0.174	7285	-79 milky pink (fine sand pulled up)
1309		28 gal	57	23.25	8.88	0.167	302	-45 light pink
1322	½ GPM	38 gal	53.6	22.98	8.86	0.164	441	-29 light tannish brown (F sand)
1335		45 gal	50	21.75	6.25	0.162	320	-2 light tan lots sand

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

Sample ID No.: BPSI-GW3012-200204
Sample Location: BPSI-SB3012
Sampled By: JB
C.O.C. No.:

[] Domestic Well Data
[] Monitoring Well Data
[X] Other Well Type: Groundwater Grab Sample
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 8-14-10 / Time: 1315	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Method: Grundfos Redi-Flow	slight pink tint	8.22	0.117	22.62	171	7.18	0.0	-35

PURGE DATA:

Date: 8-14-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Redi-Flo	see low	Flow	purge	sheet				
Monitor Reading (ppm): —								
Well Casing Diameter & Material: SS								
Type: 4" casing 2" drivepoint 1.5 scre								
Total Well Depth (TD): 204								
Static Water Level (WL): 46								
One Casing Volume(gal/L):								
Start Purge (hrs): 1246								
End Purge (hrs): 1315								
Total Purge Time (min): 29								
Total Vol. Purged (gal/L): 1.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	—	2 1L Amber glass	yes

OBSERVATIONS / NOTES:

light pink (~8% dilution)

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NIWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-GW3012-200204
DATE: 3-14-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
3-14-10 0840	DRILLING	Water	~~6.42~~ 4.92	0.266	28.7	—	22.74	221	—	Pink
1246	Start purge									
1249	47.5' bgs	1000	8.23	0.108	26.5	7.10	21.37	-9	0.0	light pink (10%)
1254	47.5	500	8.22	0.108	20.7	7.07	20.86	-18	0.0	
1259	Pump malfunction, switch out pump									
1310	47.5	500	8.22	0.117	171	7.18	22.62	-35	0.0	light pink (~3% dilute)
1315	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-GW3012-200204
Site: Site 1
Date Installed: 8-14-10
Date Developed: 8-14-10
Dev. Method: submersible
Pump Type: Grundfos RediFlow
Depth to Bottom (ft.): 204
Static Water Level Before (ft.): 46
Static Water Level After (ft.): 47.5
Screen Length (ft.): 4' x 2" w/1.5" inch screen
Specific Capacity:
Casing ID (in.): 4"
Responsible Personnel: J. Birkett, J. Lambert
Drilling Co.: Miller
Project Name: NWIRP Bethpage Site 1 PCB Investigation
Project Number: 112G0223

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP
8-14-10 0840	DRILLING	Water		22.74	4.92	0.266	28.7	-221 Pink
1040	Start	developing	50 gal in tank before	development				
1045	1.5GPM		~46' bgs	21.89	6.42	0.143	out of range	79 brownish pink
1052			47.5' bgs	21.53	7.48	0.173	362	-12 pink light brown tint
1101	1 GPM		47.5	21.27	7.93	0.172	75.6	-44 light pink
1111	1 GPM		47.5	21.16	8.24	0.170	44.0	-38 light pink
1122			47.5	21.07	8.49	0.166	39.5	-32 light pink (~50% dilution)
1133	1.75GPM	50 gal	47.5	20.85	8.70	0.161	47.6	-25 light pink (~35%)
1143			47.5	20.72	8.77	0.157	70.0	-17 light pink (~30%)
1153			47.5	20.60	8.78	0.148	34.1	-4 light pink (~25%)
1203	1.75 GPM	100 gal	47.5	20.06	8.74	0.140	43.3	-15 light pinkish tan (~20%)
1213		120 gal	47.5	20.39	8.72	0.131	43.4	-11 light pink (~20%)
1225		140 gal	47.5	19.69	8.66	0.121	22.7	-12 light pink (~15%)
1235		150 gal	47.5	19.88	8.47	0.113	26.9	8 light pink (~15%)
1245		160 gal	47.5	19.57	8.38	0.109	18.6	15 light pink (~10%)

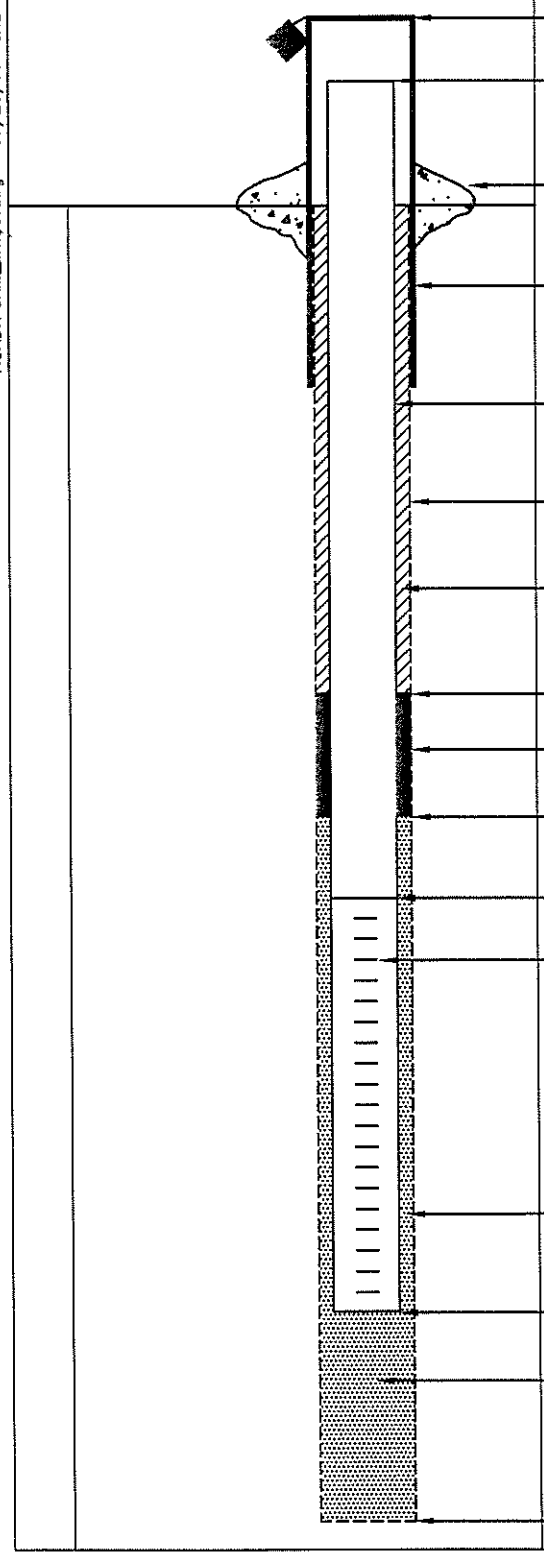
MONITORING WELL CONSTRUCTION AND DEVELOPMENT RECORDS

WELL NO.: BPSI-TT-MW301S

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
STICK-UP

PROJECT NIWIRP Bethpage	LOCATION	DRILLER Jon Keifer
PROJECT NO. 112G02230	BORING	DRILLING METHOD Roto Sonic
DATE BEGUN 11-10-10	DATE COMPLETED 11-11-10	
FIELD GEOLOGIST Jacob Birkett		DEVELOPMENT METHOD GrundFos
GROUND ELEVATION	DATUM	



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: 2.75 /

ELEVATION/HEIGHT OF TOP OF RISER PIPE: 2.5 /

TYPE OF SURFACE SEAL: Cement

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: Square steel protective casing

RISER PIPE I.D.: 2"
TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: Bentonite grout cement

ELEVATION/DEPTH TOP OF SEAL: /45

TYPE OF SEAL: 3/8" hydrated Bentonite hole plug (chips)

DEPTH TOP OF SAND PACK: 48

ELEVATION/DEPTH TOP OF SCREEN: /51

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: #1 Silica Sand

ELEVATION/DEPTH BOTTOM OF SCREEN: /61

ELEVATION/DEPTH BOTTOM OF SAND PACK: /62

BACKFILL MATERIAL BELOW SAND:
#1 Silica Sand

ELEVATION/DEPTH OF HOLE: /62

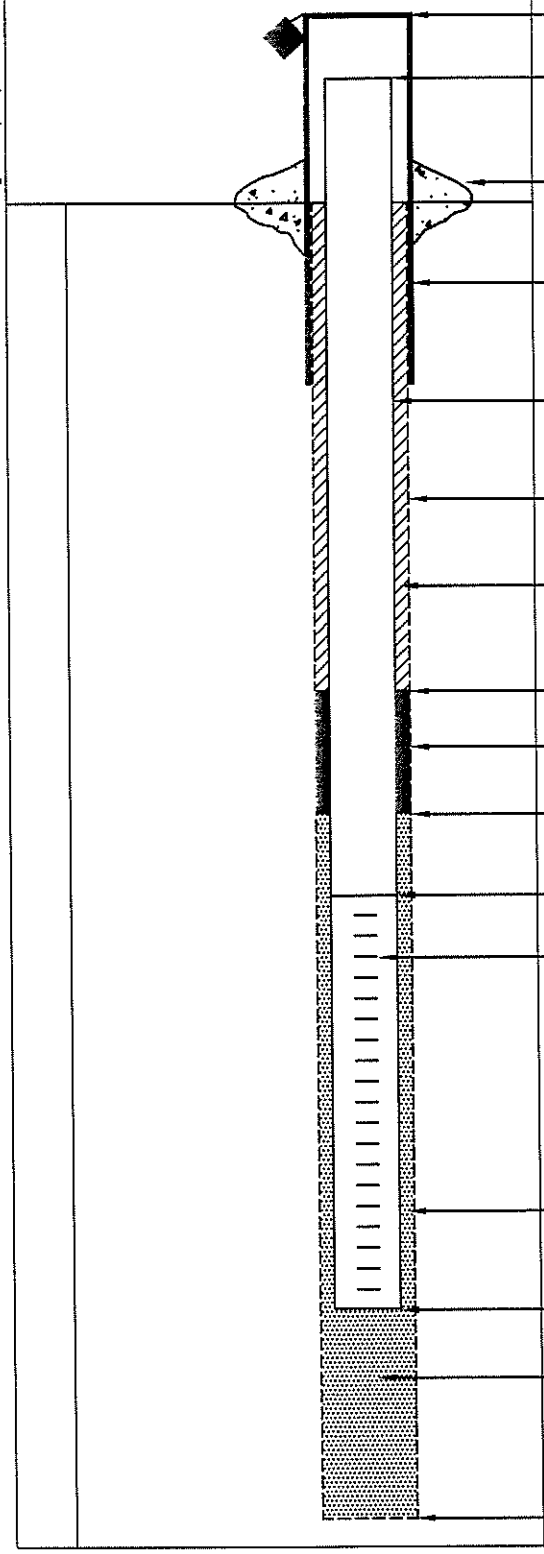
ACAD:FORM_MWSU.dwg 07/20/99 INL

WELL NO.: BPSI-TT-MW301I

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
STICK-UP

PROJECT NWIRP Bethpage Site1	LOCATION	DRILLER Jon Keifer
PROJECT NO. 112G02230	BORING	DRILLING METHOD Roto Sonic
DATE BEGUN 11-9-10 JB 11-12-10	DATE COMPLETED 11-10-10 JB 11-13-10	
FIELD GEOLOGIST Jake Birkett		DEVELOPMENT METHOD Air lift and grundfos
GROUND ELEVATION	DATUM	



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: 2.75

ELEVATION/HEIGHT OF TOP OF RISER PIPE: 2.5

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: Square steel protective casing

RISER PIPE I.D.: 2"
TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: Bentonite cement grout

ELEVATION/DEPTH TOP OF SEAL: 124

TYPE OF SEAL: 3/8" Bentonite hole plug (chips)

DEPTH TOP OF SAND PACK: 127

ELEVATION/DEPTH TOP OF SCREEN: 130

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: #1 Silica Sand

ELEVATION/DEPTH BOTTOM OF SCREEN: 140

ELEVATION/DEPTH BOTTOM OF SAND PACK: 141

BACKFILL MATERIAL BELOW SAND: #1 Silica sand

ELEVATION/DEPTH OF HOLE: 141

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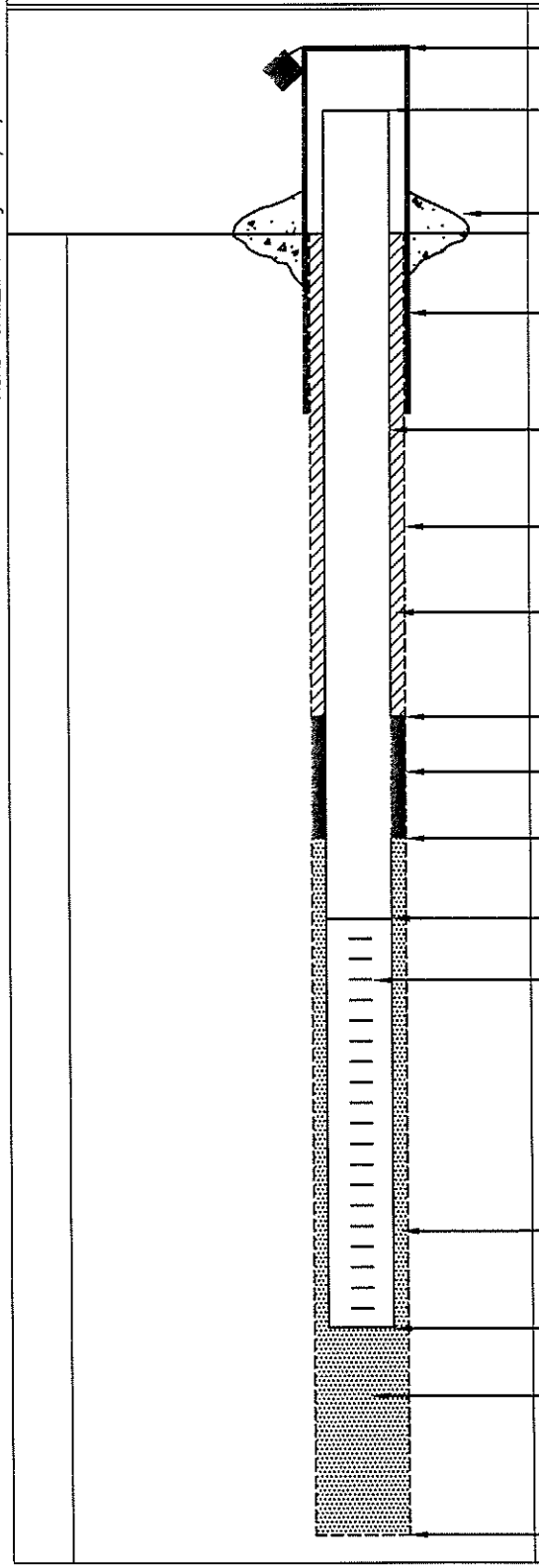
WELL NO.: BPSI-TT-MW-301D

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
STICK-UP

PROJECT NWIRP Bethpage Site 1	LOCATION	DRILLER Jon Keifer
PROJECT NO. 112G02230	BORING BPSI-TT-MW-301D	DRILLING METHOD RotoSonic
DATE BEGUN 10-29-10	DATE COMPLETED 10-30-10	
FIELD GEOLOGIST Jake Birkett		DEVELOPMENT METHOD Air Lift and Grndfo
GROUND ELEVATION	DATUM	



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: /2.75

ELEVATION/HEIGHT OF TOP OF RISER PIPE: /2.5

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: Steel square protective casing

RISER PIPE I.D.: 2"
TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: Bentonite grout cement
Bentonite powdered and portland

ELEVATION/DEPTH TOP OF SEAL: /204

TYPE OF SEAL: 3/8" Bentonite chips (hydrated)

DEPTH TOP OF SAND PACK: 207

ELEVATION/DEPTH TOP OF SCREEN: /210

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: #1 Silica Quartz Sand

ELEVATION/DEPTH BOTTOM OF SCREEN: /220

ELEVATION/DEPTH BOTTOM OF SAND PACK: /221
BACKFILL MATERIAL BELOW SAND:
#1 Silica Quartz Sand

ELEVATION/DEPTH OF HOLE: /221

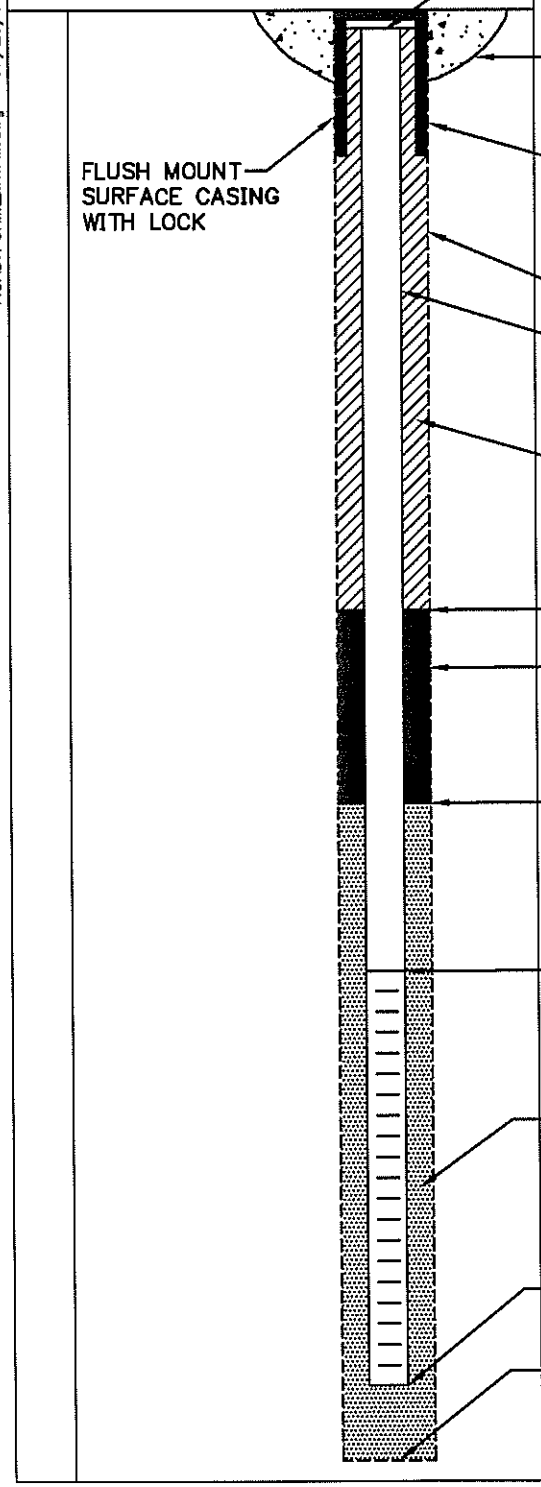
ACAD:FORM_MWSU.dwg 07/20/99 INL

WELL NO.: BPSI-TT-MW-302S

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT NWIBP Bethpage Site 1	LOCATION	DRILLER Jon Keifer
PROJECT NO. 112G02230	BORING	DRILLING METHOD Roto Sonic
DATE BEGUN 10-30-10	DATE COMPLETED 11-1-10	
FIELD GEOLOGIST Jake Birkett		DEVELOPMENT METHOD GrundFos
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER: 0

TYPE OF SURFACE SEAL: Concrete

TYPE OF PROTECTIVE CASING: Steel Flush Mount w/ rubber seals

I.D. OF PROTECTIVE CASING: 6"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: Schedule 40 PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Bentonite Grout Cement

ELEVATION/DEPTH TOP OF SEAL: 134

TYPE OF SEAL: 3/8" Bentonite Holeplug (hydrated)

ELEVATION/DEPTH TOP OF SAND: 138

ELEVATION/DEPTH TOP OF SCREEN: 141

TYPE OF SCREEN: ~~0.010" x 10'~~ Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10'

TYPE OF SAND PACK: #1 Silica Quartz Sand

DIAMETER OF HOLE IN BEDROCK:

ELEVATION / DEPTH BOTTOM OF SCREEN: 151

ELEVATION / DEPTH BOTTOM OF SAND: 152

ELEVATION/DEPTH BOTTOM OF HOLE: 152

BACKFILL MATERIAL BELOW SAND: #1 Silica Quartz sand

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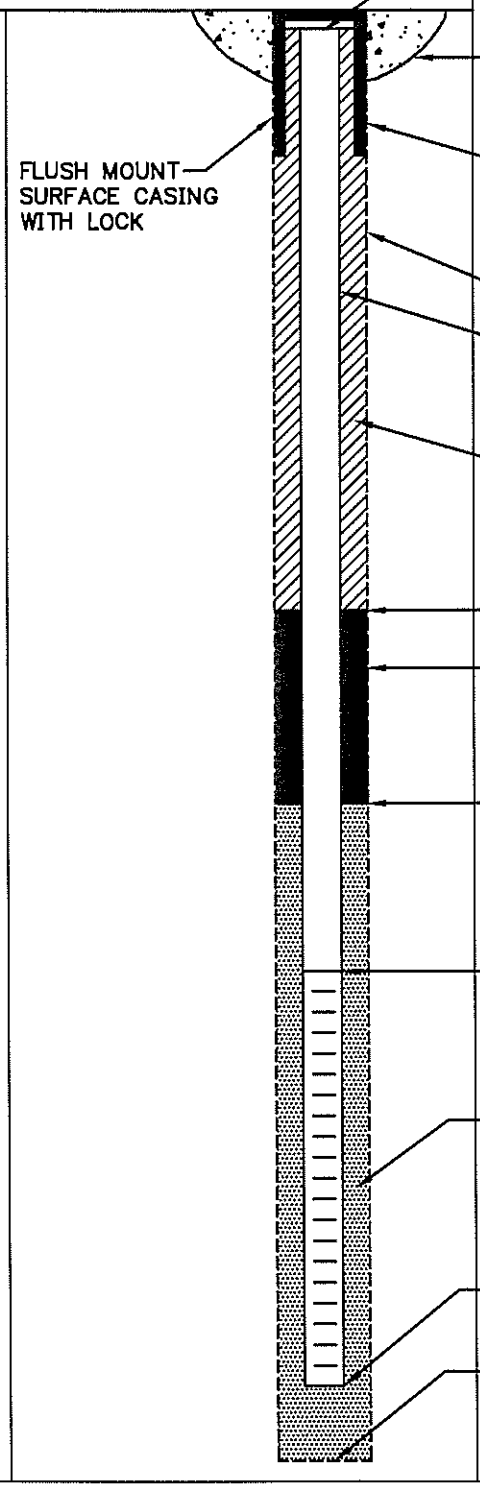
WELL NO.: BPS1-TT-MW-302-I1

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT NWIRP Bethpage	LOCATION Site 1	DRILLER Jon Keifer
PROJECT NO. 112G02230	BORING	DRILLING METHOD RotoSonic
DATE BEGUN 10-26-10	DATE COMPLETED 10-27-10	
FIELD GEOLOGIST Jacob Birkett		DEVELOPMENT METHOD
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER: 0

TYPE OF SURFACE SEAL: concrete

TYPE OF PROTECTIVE CASING: Steel Flush Mount

I.D. OF PROTECTIVE CASING: 6"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: Sch. 40 PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Bentonite grout

ELEVATION/DEPTH TOP OF SEAL: /103

TYPE OF SEAL: Bentonite chips (Hydrated)
3/8" Bentonite Hole Plug

ELEVATION/DEPTH TOP OF SAND: /107

ELEVATION/DEPTH TOP OF SCREEN: /110

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10 feet

TYPE OF SAND PACK: #1 Silica Quartz

DIAMETER OF HOLE IN BEDROCK:

ELEVATION / DEPTH BOTTOM OF SCREEN: /120

ELEVATION / DEPTH BOTTOM OF SAND: /121

ELEVATION/DEPTH BOTTOM OF HOLE: /121

BACKFILL MATERIAL BELOW SAND: Natural Formation

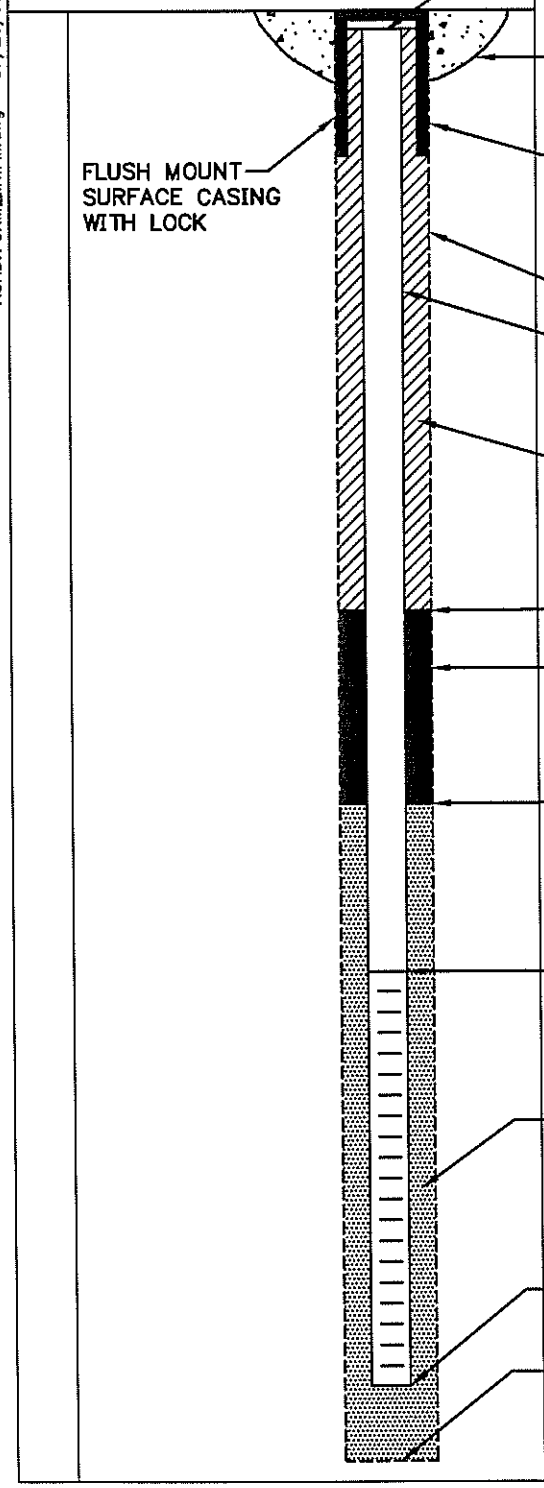
ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: BPSI-MW302I2

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: NWIRP Bethpage	LOCATION: Site 1	DRILLER: Jon Keifer	
PROJECT NO.: 112602230	BORING: —	DRILLING METHOD: Sonic	
DATE BEGUN: 10-18-10	DATE COMPLETED: 10-19-10		
FIELD GEOLOGIST: Vince Shickora		DEVELOPMENT METHOD:	
GROUND ELEVATION:	DATUM:		



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: Concrete

TYPE OF PROTECTIVE CASING: Steel Flush Mount w/ rubber seals

I.D. OF PROTECTIVE CASING: 6"

DIAMETER OF HOLE: 6 inch

TYPE OF RISER PIPE: Schedule 40 PVC

RISER PIPE I.D.: 2 inch

TYPE OF BACKFILL/SEAL: ~~Cement~~ Cement/Bentonite Grout

ELEVATION/DEPTH TOP OF SEAL: 1133'

TYPE OF SEAL: 3/8" Bentonite Holeplug

ELEVATION/DEPTH TOP OF SAND: 1137'

ELEVATION/DEPTH TOP OF SCREEN: 1140'

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10 feet

TYPE OF SAND PACK: #1 Silica Quartz

DIAMETER OF HOLE IN BEDROCK: 6 inch

ELEVATION / DEPTH BOTTOM OF SCREEN: 1150'

ELEVATION / DEPTH BOTTOM OF SAND: 1151'

ELEVATION/DEPTH BOTTOM OF HOLE: 1151'

BACKFILL MATERIAL BELOW SAND: Natural Formation

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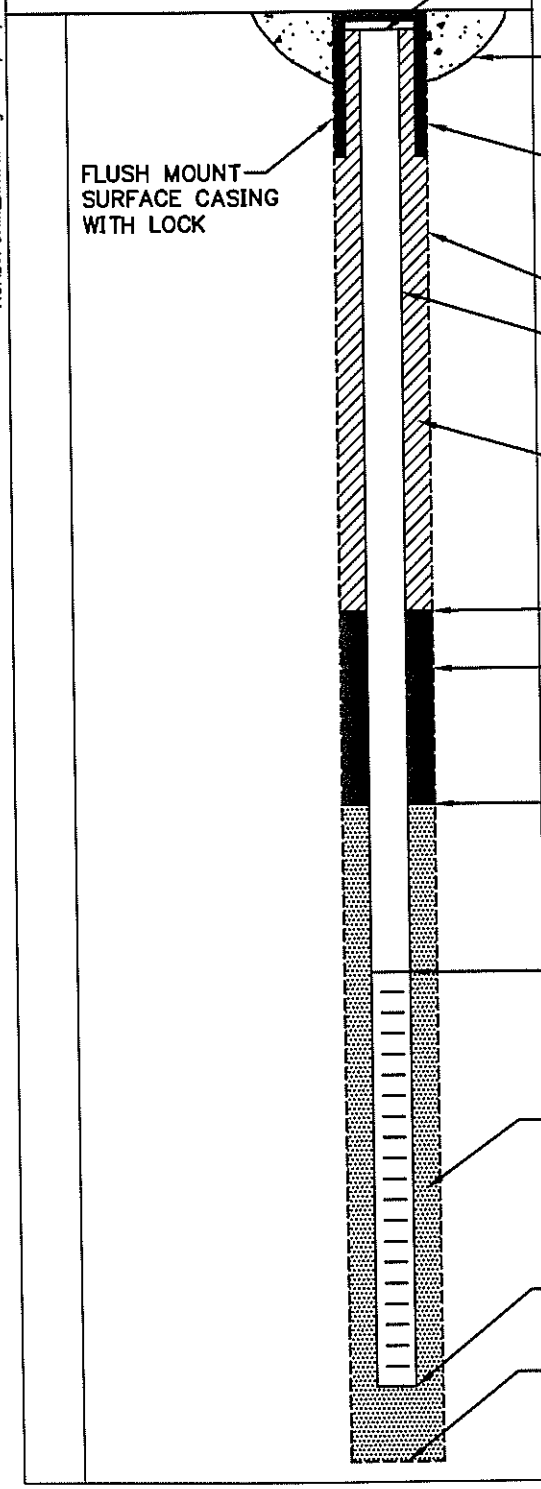
WELL NO.: BPS1-MW302D

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT NWIRP Bethpage	LOCATION Site 1	DRILLER Jon Keifer
PROJECT NO. 112G02230	BORING BPS1-SB3010	DRILLING METHOD Sonic
DATE BEGUN 10-16-10	DATE COMPLETED	
FIELD GEOLOGIST Vince Shickora		DEVELOPMENT METHOD
GROUND ELEVATION	DATUM	



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: Concrete

TYPE OF PROTECTIVE CASING: Steel Flush Mount w/ rubber seals

I.D. OF PROTECTIVE CASING: 6"

DIAMETER OF HOLE: 6 inch

TYPE OF RISER PIPE: Schedule 40 PVC

RISER PIPE I.D.: 2 inch

TYPE OF BACKFILL/SEAL: Cement-Bentonite Grout

ELEVATION/DEPTH TOP OF SEAL: 1196'

TYPE OF SEAL: 3/8" Bentonite Holeplug

ELEVATION/DEPTH TOP OF SAND: 1200'

ELEVATION/DEPTH TOP OF SCREEN: 1203'

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10 feet

TYPE OF SAND PACK: #1 Silica Quartz

DIAMETER OF HOLE IN BEDROCK: 6 inch

ELEVATION / DEPTH BOTTOM OF SCREEN: 1213'

ELEVATION / DEPTH BOTTOM OF SAND: 1214.5'

ELEVATION/DEPTH BOTTOM OF HOLE: 1218'

BACKFILL MATERIAL BELOW SAND: 3/8" Bentonite Holeplug

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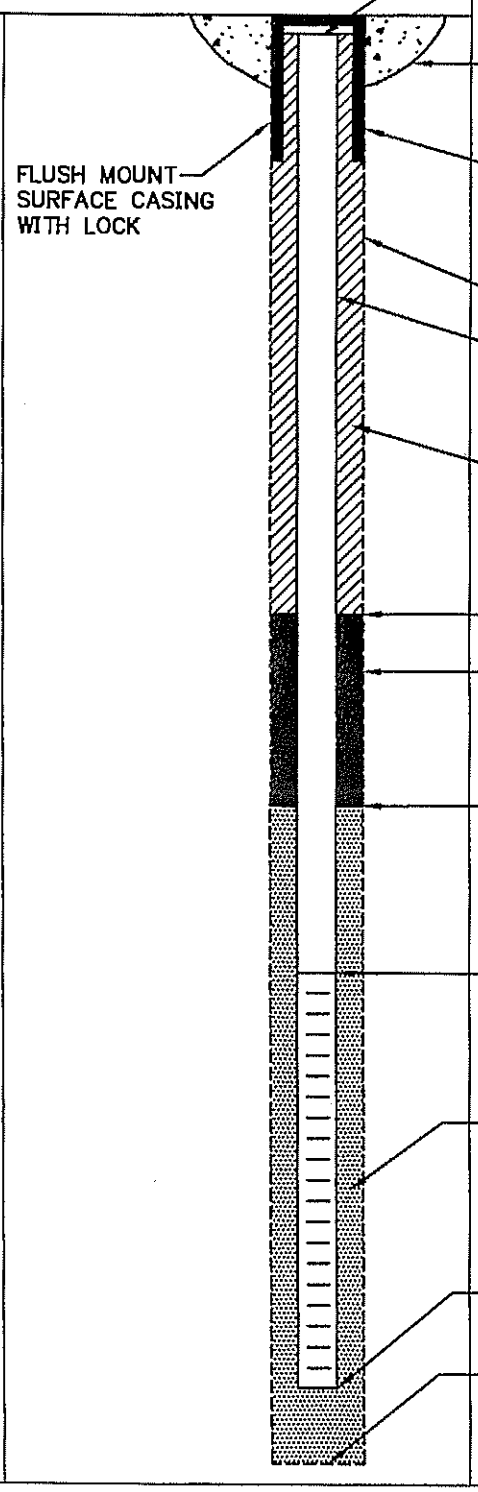
BPS1-TT-

WELL NO.: MW-303

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT NWIRP Bethpage	LOCATION BPS1	DRILLER Miller	
PROJECT NO. CTO WE44	BORING SB3011	DRILLING METHOD vibro-sonic	
DATE BEGUN 8/18/10	DATE COMPLETED 8/18/10		
FIELD GEOLOGIST J. Lambert		DEVELOPMENT METHOD	
GROUND ELEVATION	DATUM		



ELEVATION TOP OF RISER:

TYPE OF SURFACE SEAL: concrete

TYPE OF PROTECTIVE CASING: steel roadbox

I.D. OF PROTECTIVE CASING: 4"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: schedule 40 PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: bentonite cement grout.

ELEVATION/DEPTH TOP OF SEAL: 140'

TYPE OF SEAL: bentonite chips

ELEVATION/DEPTH TOP OF SAND: 143'

ELEVATION/DEPTH TOP OF SCREEN: 146'

TYPE OF SCREEN: PVC - schedule 40

SLOT SIZE x LENGTH: 0.010 x 10'

TYPE OF SAND PACK: #1 sand

DIAMETER OF HOLE IN BEDROCK: N/A

ELEVATION / DEPTH BOTTOM OF SCREEN: 156'

ELEVATION / DEPTH BOTTOM OF SAND: 158'

ELEVATION/DEPTH BOTTOM OF HOLE: 158'

BACKFILL MATERIAL BELOW SAND: (Sand)

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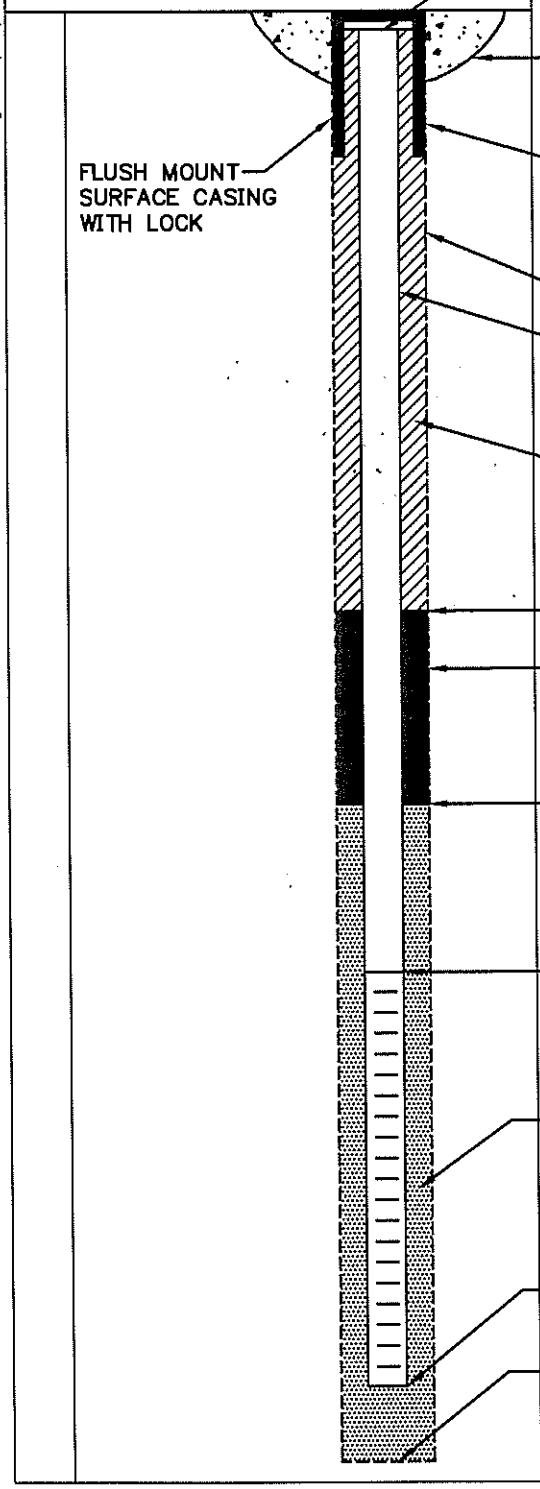
WELL NO.: BPSI-MW303I1

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: NWIRP Bethpage	LOCATION: Site 2	DRILLER: Jon Keifer	
PROJECT NO.: 112G02230	BORING: —	DRILLING METHOD: Sonic	
DATE BEGUN: 10-19-10	DATE COMPLETED:	DEVELOPMENT METHOD:	
FIELD GEOLOGIST: Vince Shickora			
GROUND ELEVATION:	DATUM:		



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: Concrete

TYPE OF PROTECTIVE CASING: Steel Flush Mount w/ rubber seals

I.D. OF PROTECTIVE CASING: 6"

DIAMETER OF HOLE: 6 inch

TYPE OF RISER PIPE: schedule 40 PVC

RISER PIPE I.D.: 2 inch

TYPE OF BACKFILL/SEAL: Cement-Bentonite grout

ELEVATION/DEPTH TOP OF SEAL: 188'

TYPE OF SEAL: 3/8" Bentonite Holeplug

ELEVATION/DEPTH TOP OF SAND: 192'

ELEVATION/DEPTH TOP OF SCREEN: 195'

TYPE OF SCREEN: schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10 Feet

TYPE OF SAND PACK: #1 Silica Quartz

DIAMETER OF HOLE IN BEDROCK: 6 inch

ELEVATION / DEPTH BOTTOM OF SCREEN: 105'

ELEVATION / DEPTH BOTTOM OF SAND: 106'

ELEVATION/DEPTH BOTTOM OF HOLE: 106'

BACKFILL MATERIAL BELOW SAND: Natural Formation

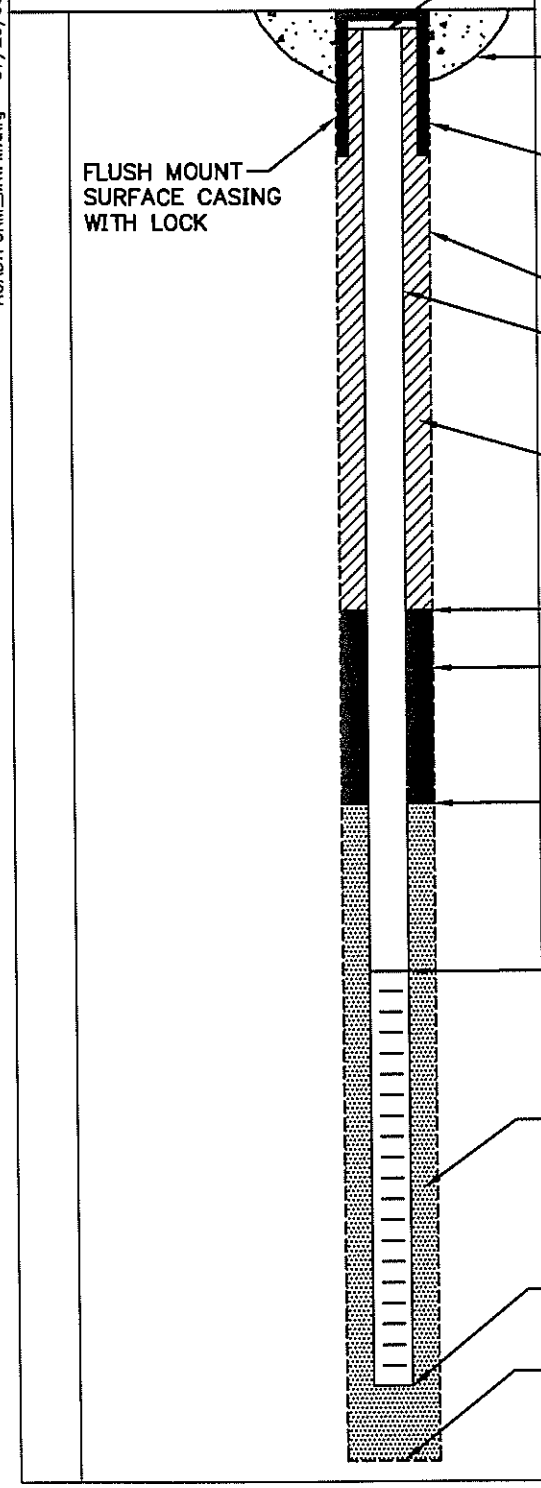
ACAD:FORM_MWFM.dwg 07/20/99 INL

WELL NO.: DPSi-MW303I2

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT NWIRP Bethpage	LOCATION Site 1	DRILLER Jon Keifer	
PROJECT NO. 112G02236	BORING —	DRILLING METHOD Sonic	
DATE BEGUN 11-17-10	DATE COMPLETED	DEVELOPMENT METHOD	
FIELD GEOLOGIST Vince Shickosky			
GROUND ELEVATION	DATUM		



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: Concrete

TYPE OF PROTECTIVE CASING: Steel Flush Mount w/ rubber seals

I.D. OF PROTECTIVE CASING: 6"

DIAMETER OF HOLE: 6 inch

TYPE OF RISER PIPE: schedule 40 PVC

RISER PIPE I.D.: 2 inch

TYPE OF BACKFILL/SEAL: Cement-Bentonite Grout

ELEVATION/DEPTH TOP OF SEAL: 1139'

TYPE OF SEAL: 3/8" Bentonite Holeplug

ELEVATION/DEPTH TOP OF SAND: 1143'

ELEVATION/DEPTH TOP OF SCREEN: 1146'

TYPE OF SCREEN: schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" X 10 feet

TYPE OF SAND PACK: #1 Silica Quartz

DIAMETER OF HOLE IN BEDROCK: 6 inch

ELEVATION / DEPTH BOTTOM OF SCREEN: 1156'

ELEVATION / DEPTH BOTTOM OF SAND: 1157'

ELEVATION/DEPTH BOTTOM OF HOLE: 1157'

BACKFILL MATERIAL BELOW SAND: Natural Formation

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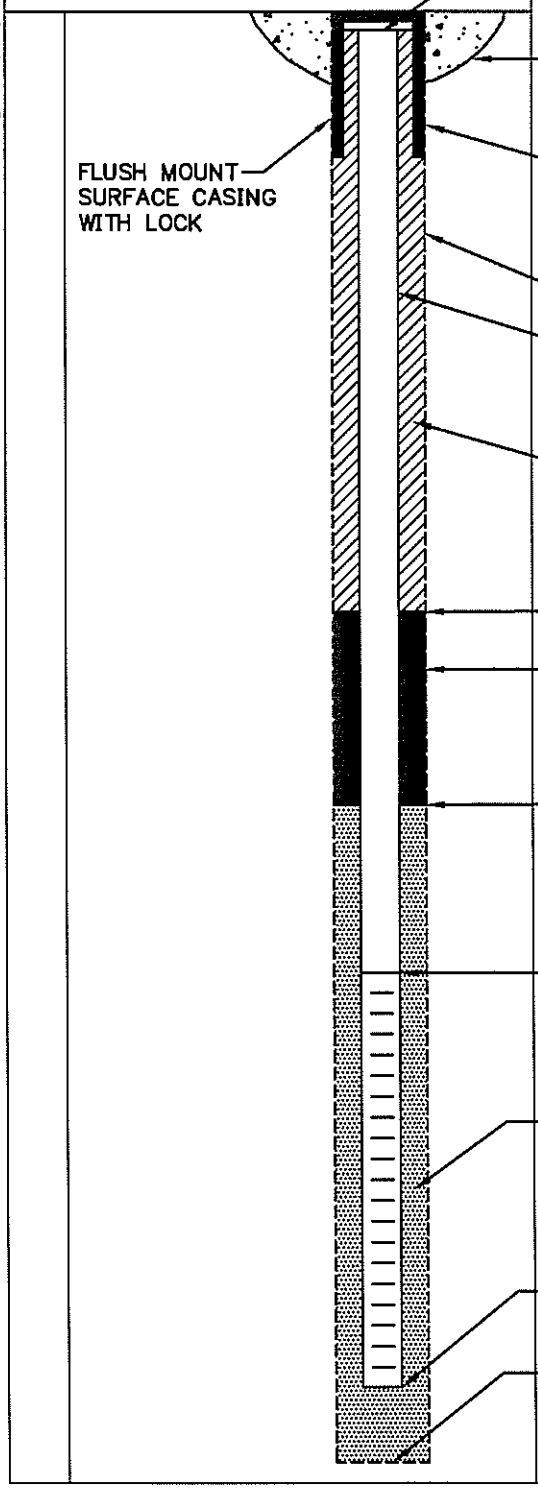
WELL NO.: BPS1-TT-MW303D

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: NWIRP Bethpage Site 1	LOCATION: Site 1	DRILLER: Jon Keifer
PROJECT NO.: 112G02230	BORING: BPS1-SB303I1	DRILLING METHOD: Sonic
DATE BEGUN: 10-14-10	DATE COMPLETED:	
FIELD GEOLOGIST: Vince Shickora		DEVELOPMENT METHOD:
GROUND ELEVATION:	DATUM:	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: Concrete

TYPE OF PROTECTIVE CASING: Steel Flush Mount w/ rubber seals

I.D. OF PROTECTIVE CASING: 6"

DIAMETER OF HOLE: 6 inch

TYPE OF RISER PIPE: Schedule 40 PVC

RISER PIPE I.D.: 2 inch

TYPE OF BACKFILL/SEAL: Cement/Bentonite Grout

ELEVATION/DEPTH TOP OF SEAL: 1201'

TYPE OF SEAL: 3/8" Bentonite Holeplug

ELEVATION/DEPTH TOP OF SAND: 1205'

ELEVATION/DEPTH TOP OF SCREEN: 1208'

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10 Feet

TYPE OF SAND PACK: #1 Silica Quartz

DIAMETER OF HOLE IN BEDROCK: 6 inch

ELEVATION / DEPTH BOTTOM OF SCREEN: 1218'

ELEVATION / DEPTH BOTTOM OF SAND: 1220'

ELEVATION/DEPTH BOTTOM OF HOLE: 1228'

BACKFILL MATERIAL BELOW SAND: 3/8" Bentonite Holeplug

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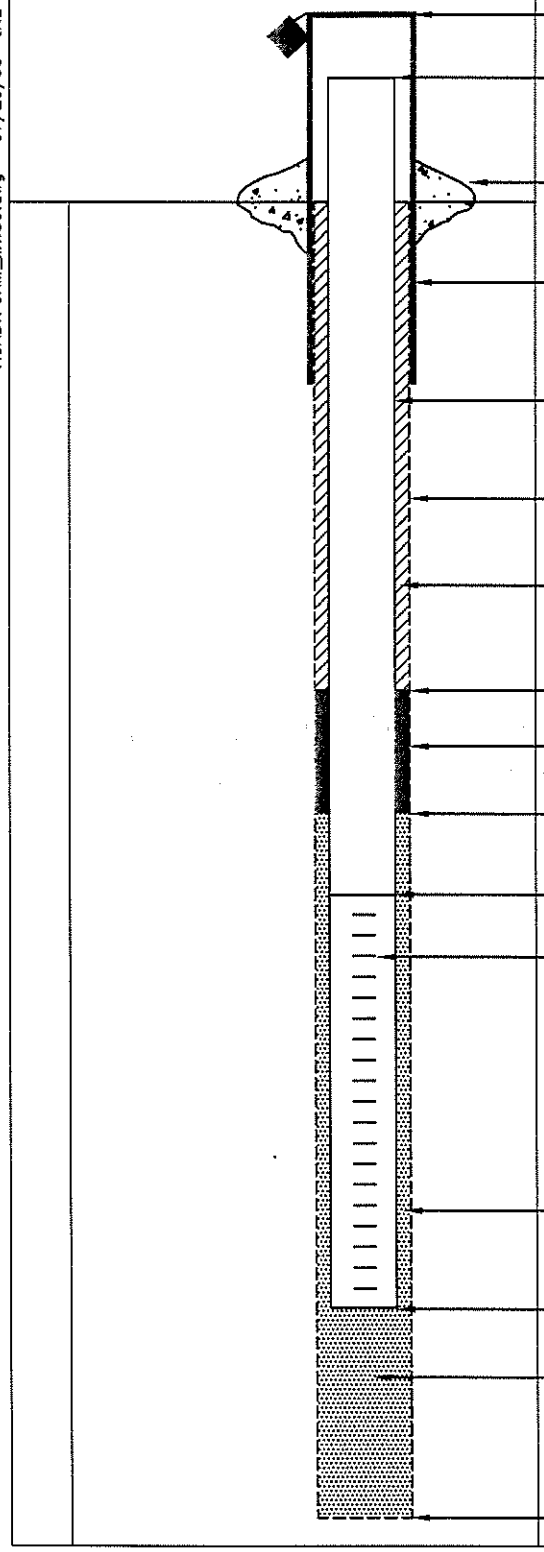
WELL NO.: BPSI-MW304

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
STICK-UP

PROJECT NWIRP Bethpage	LOCATION Site 1	DRILLER John Keifer	
PROJECT NO. 112602030	BORING	DRILLING METHOD Rotasonic	
DATE BEGUN 11-13-10	DATE COMPLETED		
FIELD GEOLOGIST Vince Shickora		DEVELOPMENT METHOD	
GROUND ELEVATION	DATUM		



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: 12.75

ELEVATION/HEIGHT OF TOP OF RISER PIPE: 12.5

TYPE OF SURFACE SEAL: Concrete Apron

I.D. OF SURFACE CASING: 4 inch
TYPE OF SURFACE CASING: Steel

RISER PIPE I.D.: 2 inch
TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 6 inch

TYPE OF BACKFILL: Bentonite/Cement Grout

ELEVATION/DEPTH TOP OF SEAL: 136'

TYPE OF SEAL: 3/8" Bentonite Holeplug

DEPTH TOP OF SAND PACK: 40'

ELEVATION/DEPTH TOP OF SCREEN: 143'

TYPE OF SCREEN: schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" X 10 Feet

I.D. OF SCREEN: 2 inch

TYPE OF SAND PACK: #1 Silica Quartz

ELEVATION/DEPTH BOTTOM OF SCREEN: 153'

ELEVATION/DEPTH BOTTOM OF SAND PACK: 154'

BACKFILL MATERIAL BELOW SAND: Natural Formation Material

ELEVATION/DEPTH OF HOLE: 154'

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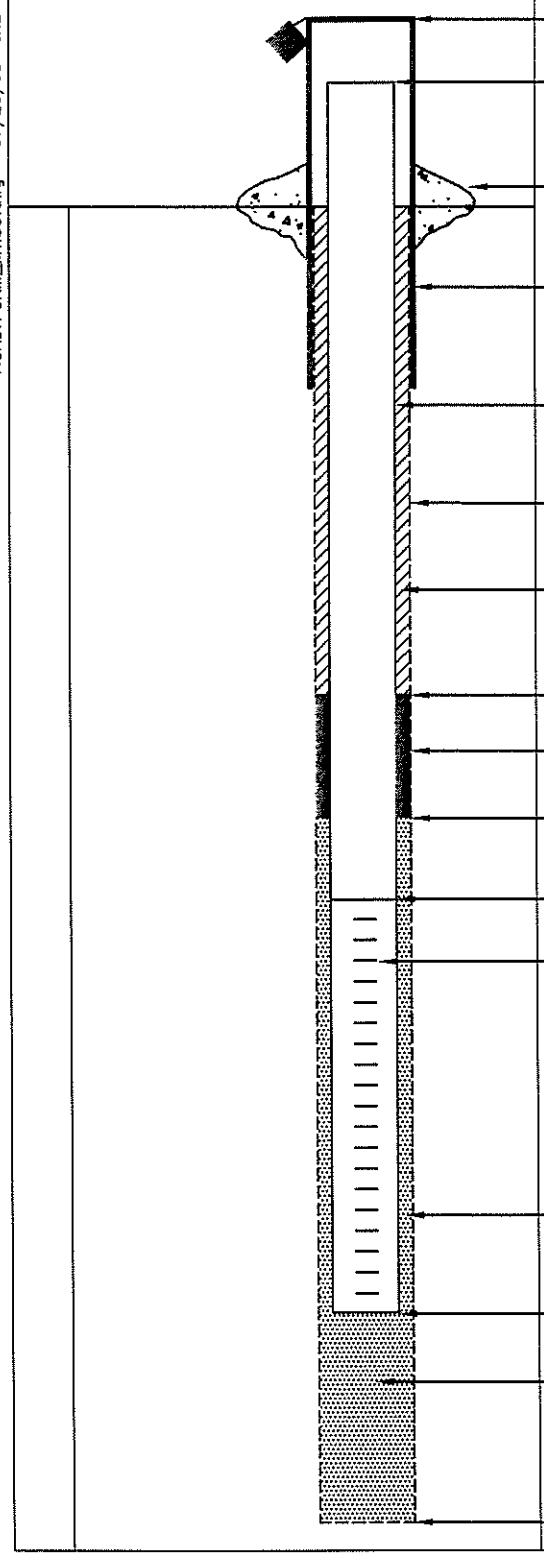
WELL NO.: BPSI-TT-MW304I

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
STICK-UP

PROJECT NWIRP Bethpage	LOCATION	DRILLER Jon Keifer
PROJECT NO. 112G02238	BORING	DRILLING METHOD RotoSonic
DATE BEGUN 11-11-10	DATE COMPLETED 11-12-10	
FIELD GEOLOGIST Jacob Birkett		DEVELOPMENT METHOD Airlift and Grundfos
GROUND ELEVATION	DATUM	



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: +2.75

ELEVATION/HEIGHT OF TOP OF RISER PIPE: +2.5

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 4"

TYPE OF SURFACE CASING: Steel square protective cover

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: Bentonite grout cement

ELEVATION/DEPTH TOP OF SEAL: +95

TYPE OF SEAL: 3/8" Bentonite holeplug (chips)

DEPTH TOP OF SAND PACK: 99

ELEVATION/DEPTH TOP OF SCREEN: +102

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: #1 Silica Sand

ELEVATION/DEPTH BOTTOM OF SCREEN: +112

ELEVATION/DEPTH BOTTOM OF SAND PACK: +113

BACKFILL MATERIAL BELOW SAND: #1 Silica Sand

ELEVATION/DEPTH OF HOLE: +113

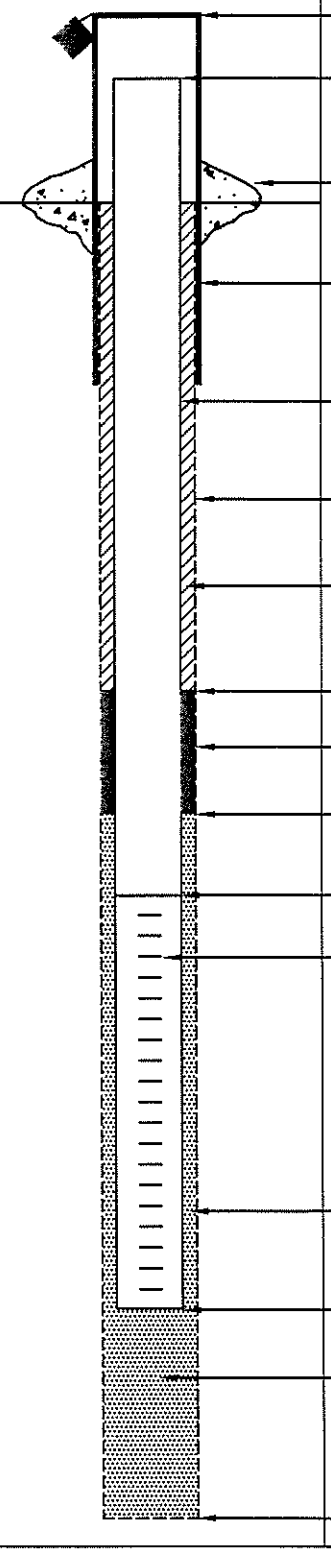
ACAD: FORM_MWSU.dwg 07/20/99 INL

WELL NO.: BPS1-TT-MW-30412

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
STICK-UP

PROJECT NWIRP Bethpage	LOCATION	DRILLER Jon Keifer
PROJECT NO. 112G02230	BORING	DRILLING METHOD Rota Sonic
DATE BEGUN 11-1-10	DATE COMPLETED 11-9-10	
FIELD GEOLOGIST Jake Birkett		DEVELOPMENT METHOD Airlift + grundfos
GROUND ELEVATION	DATUM	



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: 12.75

ELEVATION/HEIGHT OF TOP OF RISER PIPE: 12.5

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: steel square protective cover

RISER PIPE I.D.: 2"
TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: Bentonite grout cement

ELEVATION/DEPTH TOP OF SEAL: 134

TYPE OF SEAL: 3/8" Bentonite Hole plug

DEPTH TOP OF SAND PACK: 137

ELEVATION/DEPTH TOP OF SCREEN: 140

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: #1 silica sand

ELEVATION/DEPTH BOTTOM OF SCREEN: 150

ELEVATION/DEPTH BOTTOM OF SAND PACK: 151
BACKFILL MATERIAL BELOW SAND:
#1 Silica sand pack

ELEVATION/DEPTH OF HOLE: 151

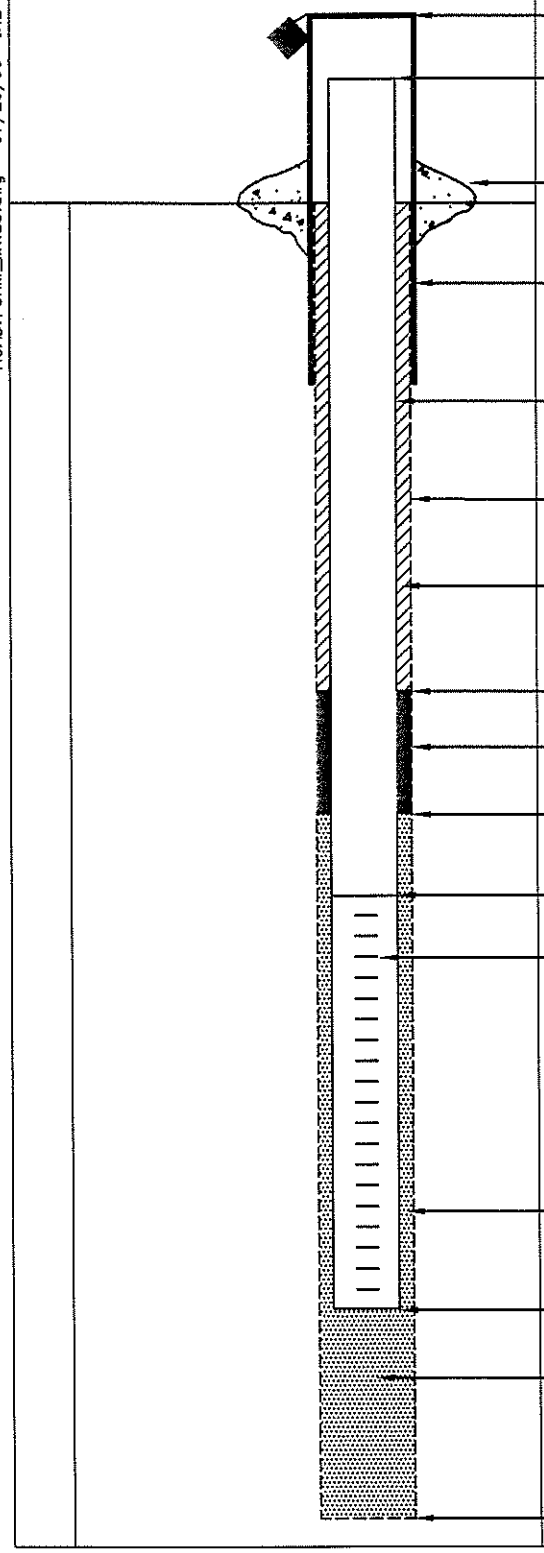
ACAD:FORM_MWSU.dwg 07/20/99 INL

WELL NO.: BPSI-TT-MW304D

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
STICK-UP

PROJECT: NWIRP Bethpage Site 1	LOCATION:	DRILLER: Jon Keifer	
PROJECT NO.: 112G02230	BORING: BPSI-TT-MW304D	DRILLING METHOD: Roto Sonic	
DATE BEGUN: 10-27-10	DATE COMPLETED: 10-28-10		
FIELD GEOLOGIST: Jake Birkett		DEVELOPMENT METHOD: Air Lift/Grundfos	
GROUND ELEVATION:	DATUM:		



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: /275

ELEVATION/HEIGHT OF TOP OF RISER PIPE: /2.5

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 6"
TYPE OF SURFACE CASING: Steel square protective cover

RISER PIPE I.D.: 2"
TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: Bentonite grout cement

ELEVATION/DEPTH TOP OF SEAL: /174'

TYPE OF SEAL: 3/8" Bentonite Hole plug (Hydrated)

DEPTH TOP OF SAND PACK: 177'

ELEVATION/DEPTH TOP OF SCREEN: /180'

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.010" x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: #1 Silica Sand

ELEVATION/DEPTH BOTTOM OF SCREEN: /190'

ELEVATION/DEPTH BOTTOM OF SAND PACK: /191

BACKFILL MATERIAL BELOW SAND: #1 Silica Sand

ELEVATION/DEPTH OF HOLE: /191'

ACAD:FORM_MWSU.dwg 07/20/99 INL

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

BPSI-TT-
Well: MW301S
Site: NWIRP Bethpage Site 1
Date Installed: _____
Date Developed: 11-13-10 11-14-10
Dev. Method: GrundFos and Hand surge
Pump Type: GrundFos Redi Flow

Depth to Bottom (ft.): 61' bgs
Static Water Level Before (ft.): 52.30
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP
1110	Flow rate (L/min)		52.30					pump set 1' off bottom (~60' bgs)
1115	2.0		53.17	14.37	8.84	2.70	377	86 light brown
1125	2.0		54.50	14.21	10.24	1.38	1339	-64 cloudy light brown
1135	2.0		54.50	13.97	9.65	0.600	407	27 light brown
1145	2.0		54.21	13.84	9.47	0.285	447	9 light brown
1155	2.0		54.12	13.67	9.13	0.229	437	52 light brown
1205	2.0		53.98	13.56	8.99	0.180	484	73 light brown
1215	2.5		54.17	13.39	8.85	0.171	1306	84 light brown
1225	2.5		54.04	13.36	8.76	0.155	482	85 light brown
1235	2.5		53.93	13.28	8.68	0.147	522	93 light brown
1245	3.0		53.89	13.17	8.65	0.125	173	91 slight tan tint
1255	3.0		54.10	13.19	8.53	0.122	143	95 slight tan tint
1305	3.0		54.10	13.11	8.52	0.113	195	101 slight tan tint
1315	6.0		54.70	13.02	8.38	0.111	347	106 slight tan tint
1325	6.0		54.65	12.92	8.24	0.111	128	113 slight tan tint
1335	6.0		54.71	12.98	8.18	0.098	92.5	125 slight tan tint
1345	6.0		54.58	12.91	8.03	0.093	130	136 slight tan tint
1355	6.0	140 gal	54.64	12.93	7.91	0.094	73.0	139 slight tan tint

Surge after every reading

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

BPSI-TT-
Well: MW 301S
Site: Bethpage Site 1
Date Installed: ~~11-13-10 to 11-14-10~~
Date Developed: 11-13-10 to 11-14-10
Dev. Method: Grundfos and Hand surge
Pump Type: Grundfos RediFlo

Depth to Bottom (ft.): 61' bgs
Static Water Level Before (ft.): 52.30
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWRP Bethpage
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP		
1410	Flow Rate		54.80	12.86	7.80	0.090	45.6	143	slight tan tint	stop surging after readings
1425	6.5 L/min		54.92	12.84	7.63	0.089	42.2	152	" "	
1440	6.5 L/min		55.11	12.81	7.49	0.090	41.9	156	" "	
1455	2 gal/min		54.91	12.87	7.39	0.085	54.7	158	" "	start surging after every reading
1510	2.5 gal/min	~300 gal	55.89	12.80	7.35	0.081	49.6	155	" "	
1525	2.5 gpm		55.94	12.73	7.28	0.082	44.0	159	" "	
1540	2.5 gpm		55.70	12.80	7.20	0.080	39.0	162	" "	
1550	generator	out of gas								
1552	Restart	generator								
1555	2.5 gpm	~400 gal	55.61	12.76	7.07	0.090	74.0	166	" "	
1610	2.5 gpm		55.90	12.67	7.13	0.080	29.9	163	" "	
1625	2.5 gpm	~450 gal	56.02	12.62	7.10	0.077	19.9	163	" "	
	Shut off pump for day, pack up site, empty tank									
11-14-10 0750	Start	pump	52.80							
0758	2.5 gpm		56.25	12.77	5.51	0.161	158	209	slight tan tint	
0813	2.5 gpm		56.20	12.22	5.33	0.099	64.2	232	" "	
0828	2.5 gpm		56.18	12.25	6.77	0.085	27.1	168	" "	
0843	2.5 gpm	640 total		12.32	6.73	0.080	13.3	170	clear	

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-TT-MW301S
Site: Bethpage Site 1
Date Installed:
Date Developed: 11-13
Dev. Method: Grundfos and Hand Surge
Pump Type: Grundfos Redi Flo

Depth to Bottom (ft.): 61' bgs
Static Water Level Before (ft.): 52.30
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP
0858	flow rate	215 (665 total)	56.18	12.34	6.74	0.080	10.40	169 clear
0913	2.5 gpm		56.13	12.36	6.73	0.080	9.40	166 clear
0928	2.5		56.19	12.38	6.72	0.078	6.49	169 clear
0943	2.5		56.30	12.41	6.71	0.077	3.46	165 clear
0958	2.5		56.40	12.41	6.66	0.077	4.19	172 clear
1013	2.5		56.13	12.35	6.61	0.078	3.45	170 clear
1028	2.5	415 today (865 total)	56.08	12.42	6.61	0.076	4.49	169 clear
	BN GL	leave to empty tank						JB surge whole length of screen
1108	Restart	pump						while tank is emptied
1112	2.5		56.08	12.85	6.61	0.096	275	172 light brown
		slow purge rate to develop water table then put rate back to 2.5 gal/min						
1127	2.5		55.81	13.10	6.87	0.101	243	148 light brown
1143	2.5		54.30	12.80	7.13	0.085	167	143 slight light brown tint
1158	2.5		55.40	13.25	6.97	0.085	52.2	147 slight tan tint
1213	2.5		55.38	13.10	6.96	0.082	23.4	152 clear
1228	2.5		55.40	12.81	6.91	0.086	8.42	177 clear
1243	2.5		54.70	12.74	6.78	0.074	3.11	158 clear
1258	2.5		54.79	12.80	6.75	0.077	4.12	clear

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPS1-TT-MW301S
Site: Bethpage Site 1
Date Installed: _____
Date Developed: 11-13-10 to 11-14-10
Dev. Method: Grundfos and Hand Surge
Pump Type: Grundfos Redi Flo
Depth to Bottom (ft.): 61' bgs
Static Water Level Before (ft.): _____
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2"
Responsible Personnel: Jacob Birkett
Drilling Co.: Drilling Miller
Project Name: NWIRP Bethpage
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP	
1313	2.5 gpm	965	54.85	12.89	6.73	0.075	2.63	153	clear
1328	2.5		54.96	12.60	6.66	0.078	3.42	162	clear
1343	2.5		54.98	12.41	6.66	0.077	2.61	170	clear
1358	2.5	1240	54.97	12.44	6.68	0.076	2.94	154	clear
1400 Shut	down	pump,	completed	development					

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-TT-MW301I
Site: Bethpage Site 1
Date Installed: _____
Date Developed: 11-15-10 and 11-16-10
Dev. Method: Airlift and Grundfos
Pump Type: Airlift and grundfos Redi Flo

Depth to Bottom (ft.): 140
Static Water Level Before (ft.): 55.50
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: 112G02230

1" PVC to 118' bgs

Air Lift 11-15-10

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP	
1350			55.50						
1355		40	—	16.04	8.67	0.179	2878	157	light brown
1410		80	—	15.23	9.40	0.109	66.6	149	clearish
1425		160	—	15.17	9.00	0.098	441	159	light brown
1440		210		14.87	8.69	0.092	46.0	173	clearish
1455		260	—	14.94	8.43	0.090	11.2	186	clear
1510		300	—	14.96	8.26	0.084	6.46	193	clear
1525		340	—	14.81	8.20	0.085	3.47	193	clear
1540		380	—	14.74	7.97	0.079	3.33	205	clear
	Empty tank								
1600	Tank back restart airlift								
1605			—	14.87	7.83	0.080	6.42	212	clear
1620		420	—	14.68	7.72	0.076	4.59	220	clear
1635		480	—	14.58	7.63	0.076	4.58	227	clear
1650		530	—	14.59	7.56	0.075	2.19	231	clear
1705		580	—	14.75	7.51	0.073	1.83	233	clear
1720		620	—	14.71	7.46	0.072	1.91	239	
	done for day, start grundfos tomorrow								

slow pump leaking and overflow from casing

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPS1-TT-MW301I
Site: Bethpage Site 1
Date Installed: _____
Date Developed: 11-15-10 and 11-16-10
Dev. Method: Airlift and grundfos
Pump Type: Airlift and grundfos redi flo

Depth to Bottom (ft.): 140
Static Water Level Before (ft.): 55.50
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: 112G02230

pump at 1' from bottom → pumps 1' off bottom
Grundfos Surge after every reading

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks ORP	(odor, color, etc.)
0805		620	55.51						
0807	2.5 gpm		56.34	15.27	6.51	0.137	351	168	light brown tint
0823		650	56.37	15.62	8.76	0.088	135	118	light brown tint
0838		685	56.21	15.50	8.66	0.075	16.1	190	clear
0854		720	56.18	15.45	8.48	0.072	15.1	173	clear
0909		760	56.23	15.53	8.21	0.071	17.8	184	clear
0924		800	56.21	15.55	8.01	0.069	9.34	189	clear
0939		830	56.41	15.56	7.75	0.066	6.29	199	clear
0954		860	56.38	15.50	7.55	0.067	6.41	201	clear
1009		890	56.18	15.40	7.35	0.066	4.13	192	clear
1024		920	56.05	15.59	7.21	0.065	5.43	203	clear
1039		950	56.10	15.66	7.20	0.065	4.85	204	clear
1054		980	56.12	15.51	6.99	0.066	2.41	203	clear
1109		1010	56.18	15.29	6.89	0.062	1.74	207	clear
1119		1030	56.17	15.51	6.90	0.064	1.53	199	clear
1129		1055	56.20	15.70	6.86	0.063	1.44	198	clear
	Finish	development	, empty tank						

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Site: NWIRP(1) | Depth to Bottom (ft.): 220' | Project Name: NWIRP – Bethpage
Well: MW-301D | Static Water Level Before (ft.): 55.22' | Project Number: 126O223O
Date Installed: ___ | Static Water Level After (ft.): 55.22' | Site Geologist: Ellen Berkliff
Date Developed: 11-2-10 | Screen Length (ft.): 10' | Drilling Co.: Miller
Dev. Method: Air Lift / Submersible | Specific Capacity: NA
Pump Type: Compressor / 2" Grundfos | Casing ID (in.): 2"

Approx. ~3 GPM

Air lift

Time start 0815	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
0900	NA	~135	closed system	13.33	6.00	~~12.33~~ 0.30	22.4	clear
0910	NA	~165	"	14.02	6.33	0.295	19.6	clear
0920	NA	~195	"	14.34	6.70	0.282	14.6	clear
0930	NA	~230	"	14.45	6.78	0.284	11.2	clear
0940	NA	~245	"	14.37	6.81	0.298	10.31	clear
0950	NA	~270	"	14.55	6.90	0.296	9.48	clear
1000	NA	~290	"	14.61	6.89	0.290	7.82	clear
1010	NA	~310	"	14.50	6.95	0.291	6.43	clear
1020	NA	~330	"	14.03	6.97	0.301	4.96	clear
1030	NA	~350	"	14.54	6.96	0.292	5.02	clear
1040	NA	~370	"	13.96	7.03	0.296	3.61	clear
1050	NA	~400	"	14.52	7.01	0.296	3.37	clear
1100	NA	~420	"	14.65	7.04	0.302	2.60	clear
1110	NA	~440	"	14.59	7.03	0.302	2.06	clear
1120	NA	460	"	14.63	7.07	0.303	3.42	clear
1130	NA	480	"	14.79	7.07	0.304	6.05	clear
1140	NA	500	"	14.50	7.07	0.305	2.56	clear
1150	NA	530	"	14.30	7.07	0.304	1.61	clear

1200 Turned off compressor. 550 gallons emptied tank

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: NWIRP-(1) | Depth to Bottom (ft.): 220' | Project Name: NWIRP – Bethpage, NY
Well: MW-30D | Static Water Level Before (ft.): 55.22' | Project Number: 112602230
Date Installed: | Static Water Level After (ft.): 55.22' | Site Geologist: Ellen Berthlire
Date Developed: 11-2-10 | Screen Length (ft.): 10' | Drilling Co.: Miller
Dev. Method: Submersible | Specific Capacity: NA
Pump Type: 2" Grundfos | Casing ID (in.): 2"

1.67 GPM 294 Hz

Time Start 12:37	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
1315	NA	~265	56.70	16.89	6.64	0.291	7.35	clear
1330	NA	90	56.70	16.35	6.08	0.294	4.15	clear
1345	NA	115	56.80	16.53	6.04	0.290	5.95	clear * pull up 2'
1500	NA	140	56.80	16.63	5.93	0.290	6.19	clear
1415	NA	165	56.82	16.52	5.92	0.293	4.43	clear
1430	NA	190	56.82	16.42	5.94	0.295	6.14	clear * 5
1445	NA	215	56.84	16.26	5.92	0.297	3.91	clear * pull up 2'
1500	NA	240	56.84	16.62	6.03	0.299	3.22	clear
1515	NA	270	56.84	16.01	5.85	0.295	4.94	" ~~* pull up 2'~~
1530	NA	300	56.84	16.22	5.89	0.291	3.65	" * to bottom
1545	NA	320	56.84	16.44	5.95	0.296	1.86	" to clear fines
1615	Turned off	370						
	Cumulative gallons removed Airlift + Submersible 550 + 370 = 920							

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Site: NWIRP(1)
Well: MW-302S
Date Installed: ___
Date Developed: 11-3-10
Dev. Method: Submersible Pump
Pump Type: 2" Grundfos

Depth to Bottom (ft.): ~~60~~ actual 50'
Static Water Level Before (ft.): 46.35'
Static Water Level After (ft.): 46.25
Screen Length (ft.): 10'
Specific Capacity: NA
Casing ID (in.): 2"

Project Name: NWIRP - Bethpage, N.Y.
Project Number: 112G02230
Site Geologist: Ellen Berkline
Drilling Co.: Miller

0915 → 0945 16tHz - 0.33 gpm
170 Hz

Time start 0845	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
0845	NA	~10	47.40	15.07	6.27	0.237	291	cloudy (0.33 GPM-16Hz)
0915	NA	~30	47.64	15.79	7.03	0.146	48.8	increasing (0.71 GPM-17Hz)
0935	NA	~50	48.23	16.67	7.01	0.124	22.3	gradually (1.43 GPM-21Hz)
0955	NA	~80	48.15	16.79	7.05	0.124	28.6	cloudy (surged - 1.43 GPM)
1010	NA	~100	47.90	16.78	7.17	0.106	47.0	clear "
1023	NA	~120	48.00	16.42	7.13	0.102	41.4	clear "
1037	NA	~140	48.09	16.74	7.02	0.100	13.6	clear "
1050	NA	~160	48.12	16.84	6.99	0.094	19.7	clear (1.5 GPM-21Hz)
1103	NA	~180	48.23	16.62	7.00	0.093	31.6	" "
1116	NA	~200	48.28	16.58	6.97	0.089	56.9	" " surged
1136	NA	~230	47.66	16.64	6.92	0.084	131	" " surged
1150	Stopped pump	~250 gallons removed						

Submersible pump

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: MW-302S
Site: NWIRP Bethpage
Date Installed: 11/1/10
Date Developed: 11/3/10 11/17
Dev. Method: Surge + Purge
Pump Type: Grundfos Redi Flo-2
Depth to Bottom (ft.): 53.65
Static Water Level Before (ft.): 46.34
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2"
Responsible Personnel: Charles Meyer
Drilling Co.: _____
Project Name: NWIRP - Bethpage
Project Number: _____

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks (odor, color, etc.) DO ORP
0830		250	46.34	15.60	6.20	0.114	194	8.19 161 Lt Brn No odor or Sheen
0845		270.5	48.13	15.92	6.54	0.079	55.7	8.10 117 clear No odor or sheen
0900		293	48.31	15.91	6.62	0.077	46.2	8.56 112 clear No odor or sheen
0915		285.5	48.40	15.94	6.60	0.076	65.7	8.63 122 clear No odor or sheen
0930		395	48.46	15.81	6.54	0.074	53.0	8.71 123 Lt Brn Surface wet No odor or sheen
0945		365	48.32	15.92	6.50	0.072	159	8.45 139 Lt Brn No odor or sheen
1000		345	48.52	15.33	6.45	0.070	183	9.23 155 Lt Brn No odor or sheen
1020		430	48.68	15.51	6.46	0.069	197	8.95 144 Lt Brn No odor or sheen
1030		450	48.74	15.67	6.50	0.069	197	8.99 139 Lt Brn No odor or sheen
1045		480	48.80	15.75	6.48	0.067	179	9.12 140 Lt Brn No odor or sheen
1100		510	48.96	15.60	6.48	0.067	164	9.07 141 Lt Brn No odor or sheen
1115		540	48.92	15.79	6.42	0.067	159	9.03 145 Lt Brn No odor or sheen
1130		570	48.94	15.66	6.50	0.067	145	9.20 144
1145		600	49.00	15.80	6.48	0.067	141	8.98 150
1200		630	49.04	15.79	6.44	0.067	147	9.19 158
1215		660	48.06	15.79	6.48	0.066	147	9.30 156
1230		690	49.05	15.95	6.48	0.067	144	8.92 152
1245		710	47.99	15.93	6.48	0.068	146	8.71 132

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Well: MW-302S
Site: NWERP Bethpage
Date Installed: 11/1/10
Date Developed: 11/7/10
Dev. Method: Surge + Purge
Pump Type: Redi Flo-2 Pump
Depth to Bottom (ft.): 53.65
Static Water Level Before (ft.): 46.89
Static Water Level After (ft.): ___
Screen Length (ft.): 10'
Specific Capacity: ___
Casing ID (in.): 2"
Responsible Personnel: Charles Meyer
Drilling Co.: ___
Project Name: NWERP Bethpage
Project Number: ___

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) DO ORP
1320		740	49.12	15.22	6.23	0.093	183	9.19 8.14 Lt Brn No odor or sheen
1330		760	48.81	15.82	6.50	0.069	154	9.13 166 Lt Brn No odor or sheen
1345		770	48.64	15.35	6.45	0.067	128	9.14 172 Lt Brn No odor or sheen
1400		800	48.57	15.67	6.46	0.066	117	9.09 171 Lt Brn No odor or sheen
1415		830	48.43	15.56	6.44	0.067	102.4	9.02 158 Lt Brn No odor or sheen
1430		860	48.84	15.82	6.47	0.066	98.6	8.95 148 Lt Brn No odor or sheen
1445		890	48.89	15.80	6.46	0.066	96.3	9.10 146 Lt Brn No odor or sheen
1500		920	48.75	15.58	6.47	0.066	94.3	9.14 149 Lt Brn No odor or sheen (Surged well)
1515		950	48.74	15.99	6.44	0.067	96.0	8.97 146 Lt Brn No odor or sheen
1530		980	48.74	15.54	6.45	0.067	96.0	9.12 142
1545		1010	48.79	15.78	6.44	0.066	94.4	9.01 146
1600		1040	48.79	15.80	6.45	0.066	94.4	8.95 142
1615		1070	48.82	15.68	6.42	0.067	88.0	9.16 145
1630		1100	48.92	15.85	6.43	0.067	105.0	9.15 139
1645		1130	48.97	15.96	6.45	0.067	95.4	9.16

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: MW-3025 | Depth to Bottom (ft.): 53.65 | Responsible Personnel: Chuck Meyer
Site: NWI 12P Bethpage | Static Water Level Before (ft.): 46.46 | Drilling Co.: Miller Drilling Co
Date Installed: 11/1/10 | Static Water Level After (ft.): _____ | Project Name: NWI 12P Bethpage
Date Developed: 11/3, 11/8, 11/9 | Screen Length (ft.): 10' | Project Number: _____
Dev. Method: Surge + Purge | Specific Capacity: _____
Pump Type: Grundfos Redi Flo-2 | Casing ID (in.): 2"

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks (odor, color, etc.)
11/9/10 0755		1130	46.46	15.44	6.33	0.142	756	7.97 116 LT Brn No odor or Sheen
0810		1160	48.26	16.17	6.49	0.074	223	8.35 134 LT Brn No odor or Sheen
0825		1190	48.37	16.01	6.52	0.073	166	8.57 142 LT Brn No odor or Sheen
0840		1220	48.42	16.38	6.53	0.071	128	8.81 140 LT Brn No odor or Sheen
0855		1250	48.47	16.43	6.49	0.071	102.0	8.84 141 LT Brn No odor or Sheen
0910		1280	48.57	16.36	6.43	0.070	41.7	8.85 164 LT Brn Tint No odor or Sheen
0925		1303	48.58	16.34	6.49	0.071	88.1	8.77 145 LT Brn Tint No odor or Sheen
0940		1326	48.60	16.41	6.48	0.071	91.7	surged the well 8.89 142 LT Brn Tint No odor or Sheen
0955		1349	48.62	16.42	6.45	0.073	111.2	9.48 142 LT Brn No odor or Sheen

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Well: MW-302 I1
Site: NWIR (1)
Date Installed: ___
Date Developed: 10-29-10
Dev. Method: Airlift / Submersible Pump
Pump Type: Compresser / 2" GrundFos

Depth to Bottom (ft.): 120'
Static Water Level Before (ft.): ~43.00'
Static Water Level After (ft.): ~43.00'
Screen Length (ft.): 10'
Specific Capacity: NA
Casing ID (in.): 2"

Responsible Personnel: Ellen Berklite
Drilling Co.: Miller
Project Name: NWIRP-Bethpage
Project Number: 112G02230

Time Start: 0750	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
0815	NA	100	closed system	15.28	6.05	0.144	4.07	clear
0825	NA	130	"	15.37	6.26	0.123	4.64	clear
0835	NA	170	"	15.98	6.28	0.122	1.00	clear
0845	NA	210	"	16.15	6.26	0.122	2.78	clear
0855	NA	240	"	15.79	6.30	0.122	1.07	clear
0905	NA	280	"	15.83	6.32	0.122	0.41	clear
0915	NA	320	"	15.72	6.36	0.122	0.87	clear
0925	NA	360	"	15.95	6.43	0.122	0.44	clear
0935	NA	398	"	15.96	6.45	0.122	0.00	clear
0945	NA	420	"	15.58	6.44	0.122	1.08	clear
0955	NA	460	"	15.57	6.50	0.122	1.04	clear
1005	NA	500	"	15.58	6.52	0.122	1.00	clear
1015	STOP	~550~	TANK FULL					

Air Lift

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Well: MW-302 I
Site: NWIRP(I)
Date Installed: ___
Date Developed: 10-30-10
Dev. Method: Submersible
Pump Type: 2" Grundfos
Depth to Bottom (ft.): 120'
Static Water Level Before (ft.): ~43.00'
Static Water Level After (ft.): ~43.00'
Screen Length (ft.): 10'
Specific Capacity: ___
Casing ID (in.): 2"
Responsible Personnel: Ellen Berkhiser
Drilling Co.: Miller
Project Name: NWIRS - Bethpage
Project Number: 112602236

270 Hz @ 2gpm Pump 2' off bottom to start

Submersible Grundfos

excess hose: pump not stopped

*adjusted actual flow 1.7 gpm

2.25 gpm

Time Start 0930	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
0850	NA	40	47.73	15.17	5.29	0.149	1.78	clear
0910	NA	80	47.73	15.76	5.68	0.128	0.88	clear
0920	NA	100	48.42	16.17	5.66	0.125	0.00	clear (pulled pump up 2')
0930	NA	120	48.39	15.89	5.65	0.126	510	slightly cloudy
0940	NA	140	48.35	16.07	5.52	0.121	40.9	clear
0950	NA	160	48.20	15.52	5.54	0.124	28.0	clear
1000	NA	180	48.15	16.27	5.62	0.123	42.1	clear
1010	NA	200	48.08	15.66	5.49	0.123	15.3	clear (pulled pump up 2')
1020	NA	220	47.90	16.09	5.53	0.123	28.4	clear
1030	NA	220	47.85	16.16	5.54	0.124	30.7	clear surged
1050	NA	240	49.45	16.08	5.47	0.124	177	slightly cloudy
1100	NA	260	49.45	16.44	5.50	0.121	7.31	clear
1110	NA	280	49.40	16.48	5.50	0.123	1.30	clear
1120	NA	300	49.45	16.50	5.46	0.121	0.60	clear
* Driller recommended putting pump at bottom of well to clear up fines settled from surging & pump out 50 more gallons.							3.4	clear
1145	NA	350	49.45	16.42	5.45	0.122	0.5	clear
	stopped pump & emptied tank							

* cumulative water at rest + pumped → 550 + 350 = 900 gallons

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Well: MW-302 I2
Site: NWIRP (1)
Date Installed: ___
Date Developed: 10-29-10
Dev. Method: Air lift / Submersible Pump
Pump Type: Compressor / 2" Grundfos

Depth to Bottom (ft.): 150'
Static Water Level Before (ft.): ~43.00'
Static Water Level After (ft.): ~43.00'
Screen Length (ft.): 10'
Specific Capacity: NA
Casing ID (in.): 2"

Responsible Personnel: Ellen Berkhite
Drilling Co.: Miller
Project Name: NWIRP-Bethpage
Project Number: 112G02230

	Time Start: 1540	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
Air Lift	1600	NA	140	closed system	16.54	9.05	1.18	1.53	clear
	1610	NA	220	"	16.22	7.79	0.125	3.28	clear
	1620	NA	310	"	16.19	7.77	0.124	1.08	clear
	1630	NA	390	"	16.16	7.68	0.124	1.18	clear
	1640	NA	460	"	16.09	7.60	0.124	1.10	clear
	1650	STOP	~550	Tank Full	~	~	~	~	clear
	10-29-10 start @ 1110 @ 3 gpm				~270 Hz		pump 2' off bottom		
Submersible Grundfos	1120	NA	~20	44.08	15.84	6.62	0.137	9.06	clear
	1130	NA	~40	44.10	16.29	6.47	0.133	3.46	clear (Increased 27Hz)
	1138	NA	~60	44.10	16.07	6.25	0.132	2.99	clear
	1145	NA	~80	44.10	15.95	6.17	0.133	0.0	clear (Moved pump)
	1153	NA	100	44.10	15.92	6.11	0.135	11.5	clear
	1200	NA	120	44.10	16.17	6.02	0.132	3.7	clear
	1207	NA	140	44.10	16.40	6.04	0.132	1.73	clear
	1214	NA	160	44.10	16.28	6.07	0.131	1.97	clear (moved pump up 2')
	1221	NA	180	44.10	16.33	6.02	0.130	1.99	clear
	1228	NA	240	44.10	16.00	6.01	0.130	2.18	clear
	1235	NA	320	44.10	16.15	6.03	0.132	0.94	clear
	1243	NA	240	44.10	16.13	6.02	0.132	0.58	clear

*Stopped pump @ 1250 with 250 gallons removed by Grundfos.
Cumulative, 550 + 250 = 800 total gallons removes.

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Well: MW-302 D
Site: NWIRP (1)
Date Installed: ___
Date Developed: 10-28-10
Dev. Method: Air lift / Submersible Pump
Pump Type: Compressor / Grundfos 2"
Depth to Bottom (ft.): 213'
Static Water Level Before (ft.): ~43.00
Static Water Level After (ft.): ~43.00
Screen Length (ft.): 10'
Specific Capacity: N/A
Casing ID (in.): 2"
Responsible Personnel: Ellen Berklite
Drilling Co.: Miller
Project Name: NWIRP-Bethpage
Project Number: 126 02230

Time start up 1215:	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C) ✓	pH ✓	Specific Conductance (Units ____) ✓	Turbidity (NTU) ✓	Remarks (odor, color, etc.)
Air lift 1305	NA	210	closed system	(shutdown to pull one 10' section of pipe from 1305-1320.				
1330	NA	250	"	17.20	9.61	0.219	220	slightly cloudy
1340	NA	290	"	16.58	9.20	0.174	241	slightly cloudy
1350	NA	330	"	16.64	8.91	0.161	92.6	clear
1400	NA	380	"	16.48	8.79	0.156	48.2	clear
1410	NA	420	"	16.34	8.66	0.150	47.2	clear
1420	NA	460	"	16.36	8.65	0.149	26.7	clear
1430	NA	500	"	16.37	8.63	0.150	21.7	clear
1440	STOP	~550~	Tank Full ~					
Submersible Grundfos	Start 1405 on 10-29-10 2 gpm 2.75 Hz				Pump 2' off bottom			
1420	NA	20	45.42	15.43	10.07	0.179	4.44	clear
1430	NA	40	45.45	16.14	9.91	0.167	3.02	clear
1440	NA	60	45.45	15.97	9.83	0.163	0.00	"
1450	NA	80	45.45	16.04	9.71	0.156	0.00	" (Moved pump up 2')
1500	NA	100	45.45	16.20	9.82	0.302	260	cloudy
1510	NA	120	45.45	16.09	9.90	0.170	12.5	clear
1520	NA	140	45.45	16.36	9.67	0.161	2.8	clear
1530	NA	160	45.45	16.33	9.58	0.157	0.2	clear (Moved pump up 2')
1540	NA	180	45.45	16.02	9.71	0.158	53.1	Clear
1550	NA	200	45.45	16.60	9.52	0.149	4.60	"
1600	NA	220	45.45	16.34	9.62	0.152	4.20	"
1610	NA	240	45.45	16.56	9.50	0.148	3.30	"
1620	shut off	250	tank full	Cumulative total = 250+550 = 800 gallons				

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Site: NWIRP(1) | Depth to Bottom (ft.): 56' | Project Name: NWIRP – Bethpage
Well: MW-3035 | Static Water Level Before (ft.): 43.34 | Project Number: 112602230
Date Installed: ___ | Static Water Level After (ft.): 43.34' | Site Geologist: Ellen Berkhire
Date Developed: 11-1-10 | Screen Length (ft.): 10' | Drilling Co.: Miller
Dev. Method: Submersible Pump | Specific Capacity: NA
Pump Type: 2" Grundfos | Casing ID (in.): 2"

2" submersible grundfos

2.971 GPM ~3GPM 28.4 Hz

Time Start 1300	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
1340	NA	120	43.77	17.16	6.63	0.111	53.1	clear
1350	NA	150	43.77	16.60	6.54	0.110	27.0	clear
1400	NA	180	43.77	16.46	6.52	0.110	7.02	clear
1410	NA	210	43.77	16.75	6.46	0.110	0.0	clear * pull pump up 2'
1420	NA	240	43.85	16.64	6.43	0.115	75.8	cloudy
1430	NA	270	43.80	16.50	6.43	0.116	40.9	cloudy – surged it
1440	NA	300	43.85	16.58	6.44	0.116	56.5	cloudy –
1450	NA	330	43.85	16.58	6.45	0.118	51.9	cloudy
1500	NA	360	43.85	16.54	6.44	0.116	16.9	~~cloudy~~ clear
1510	NA	390	43.85	16.27	6.44	0.117	6.05	clear
1520	NA	420	43.88	16.52	6.46	0.119	4.55	clear * pulled pump up 2'
1530	NA	450	43.84	16.49	6.49	0.120	19.8	clear
1540	NA	480	43.88	16.36	6.47	0.118	9.03	clear
Turned off pump at 1540 (to empty tank) & restarted at 1605							~~17.4~~	~~clear~~
1615	NA	510	43.80	16.10	6.43	0.118	17.4	clear
1625	NA	540	43.80	15.76	6.59	0.115	4.09	clear
1635	NA	570	43.82	15.94	6.53	0.117	9.29	clear * Dropped to
1645	NA	600	43.82	16.15	6.52	0.116	8.44	clear Bottom to clear flakes
1655	NA	630	43.82	16.08	6.48	0.116	2.00	clear
@ 1700 turned off pump w/ 645 gallons removed.								

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well ~~Site~~: MW-303 I1
~~Site~~well: NWIRP(1)
Date Installed: _____
Date Developed: 10-27-10
Dev. Method: Airlift / submersible
Pump Type: Compressor / 2" Grundfos pump

Depth to Bottom (ft.): 105'
Static Water Level Before (ft.): ~43.30'
Static Water Level After (ft.): ~43.30'
Screen Length (ft.): 10'
Specific Capacity: NA
Casing ID (in.): 2"

Project Name: NWIRP-Bethpage
Project Number: 112602230
Site Geologist: Ellen Berkline
Drilling Co.: Miller

Time start 1200	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C) ✓	pH ✓	Specific Conductance (Units _____) ✓	Turbidity (NTU) ✓	Remarks (odor, color, etc.)
1220	NA	75	closed system	16.79	6.59	0.158	8398	cloudy - Muddy
1230	NA	110	"	16.72	6.80	0.150	5443	cloudy - Muddy
1240	NA	150	"	16.79	6.83	0.146	3953	cloudy - muddy
1250	NA	175	"	16.85	6.88	0.145	3379	cloudy - Murky
1300	NA	215	"	16.66	6.96	0.145	2867	cloudy - Murky
1310	NA	240	"	16.66	7.00	0.140	2539	cloudy - Murky
1320	NA	275	"	16.69	7.00	0.140	2250	cloudy - Murky
* 1335	Shy to cush	320	~~tank~~	full (takes half full to start from				MW-303 I2
Restarted Airlifting via compressor @ 1430								
1450	NA	400	"	16.66	6.86	0.138	2290	cloudy - Murky
1500	NA	430	"	16.69	6.80	0.138	1623	cloudy - Murky
1510	NA	470	"	16.77	6.83	0.132	2192	cloudy - Murky
1520	NA	490	"	16.79	6.84	0.132	1493	"
1530	NA	530	"	16.73	6.84	0.136	1169	"
1540	NA	570	"	16.72	6.78	0.132	1281	"
1550	NA	610	"	16.45	6.80	0.133	1253	"
1600	NA	640	"	16.93	6.84	0.137	1460	"
1610	NA	670	"	16.72	6.81	0.136	1349	"

Air lift

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: MW-303 I1
Site: NWIRP (1)
Date Installed: ____
Date Developed: 10-27-16
Dev. Method: Air lift / Submersible Pump
Pump Type: Compressor / Grundfos 2"
Depth to Bottom (ft.): 105'
Static Water Level Before (ft.): ~43.36
Static Water Level After (ft.): ~43.30'
Screen Length (ft.): 10'
Specific Capacity: NA
Casing ID (in.): 2"
Responsible Personnel: Ellen Berkliff
Drilling Co.: Miller
Project Name: NWIRP-Bethpage
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
1620	NA	710	closed system	16.58	6.82	0.136	1374	cloudy, murky
1630	NA	740	closed system	16.57	6.78	0.136	1168	cloudy, murky
1640	NA	770	"	16.72	6.77	0.132	1231	"
1650	NA	800	"	16.60	6.78	0.135	1228	"
1700	NA	830	shut down — tank full					
10-28-16 : Restarted Air lifting @ 0810								
0830	NA	900	closed system	16.79	6.00	0.183	1955	cloudy, murky
0840	NA	930	"	16.66	6.33	0.141	1473	"
0850	NA	960	"	16.60	6.40	0.136	1267	"
0900	NA	990	"	16.64	6.57	0.137	1106	"
0910	NA	1030	"	16.62	6.62	0.137	1479	"
0920	NA	1060	"	16.81	6.68	0.139	1598	"
0940	NA	1130	"	16.94	6.72	0.139	1747	"
1000	NA	1190	"	16.90	6.71	0.137	1167	cloudy
1020	NA	1240	"	16.74	6.69	0.133	1012	cloudy
1040	NA	1290	"	16.73	6.74	0.136	980	cloudy
1050	NA	1320	"	16.76	6.73	0.136	956	cloudy
1100	Shutdown	1350	tank full — Air lift complete					

Air lift

Air Lift

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Site: NWIRP (1) | Depth to Bottom (ft.): 105' | Project Name: NWIRP - Bethpage
Well: MW-303 I1 | Static Water Level Before (ft.): 43.30' | Project Number: 112G02230
Date Installed: ___ | Static Water Level After (ft.): 44.10' | Site Geologist: Ellen Berkhize
Date Developed: 11-1-10 | Screen Length (ft.): 10' | Drilling Co.: Miller
Dev. Method: 2" Submersible | Specific Capacity: NA
Pump Type: Grundfos | Casing ID (in.): 2"

2.5 GPM

2" Submersible grundfos

Time Start 0925	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
0935	NA	25	50.15	14.40	6.80	0.200	1998	Muddy
0945	NA	50	50.00	15.58	7.48	0.181	1725	"
0955	NA	75	51.78	15.47	7.101	0.177	1305	"
1005	NA	100	51.72	15.47	7.85	0.176	1138	"
1015	NA	125	51.70	15.58	7.71	0.169	898	"
1025	NA	150	51.80	16.08	7.58	0.166	539	Murky
1035	NA	175	51.93	15.79	7.40	0.165	532	" * pulled pump up 2'
1045	NA	200	51.52	15.32	7.29	0.163	501	Murky
1055	NA	225	51.66	15.37	7.25	0.160	540	Murky
1105	NA	250	51.70	15.39	7.15	0.160	517	"
1115	NA	275	51.75	15.59	7.10	0.159	531	" * pulled pump up 2'
1125	NA	300	51.72	15.75	7.07	0.156	445	"
Generator ran out of Gas - Refilled + restarted pump @ 1124 → 1133								
1140	NA	325	51.80	15.80	6.99	0.156	589	"
1150	NA	350	52.00	15.11	6.90	0.152	368	cloudy
1200	NA	375	52.05	14.43	6.91	0.151	536	cloudy
1210	NA	400	52.10	14.73	6.90	0.152	413	cloudy * drop pump
1220	NA	425	52.00	15.10	6.95	0.150	350	cloudy @ bottom to
1230	NA	450	52.00	15.10	6.95	0.150	386	cloudy clear pmps

cumulative water removed Airlift + Grundfos 1350 + 450 = 1800 gallons

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Well: MW-303 I2 | Depth to Bottom (ft.): 156 | Responsible Personnel: Ellen Bethpage
Site: NWIRP (1) | Static Water Level Before (ft.): ~43.80 | Drilling Co.: Miller
Date Installed: _____ | Static Water Level After (ft.): ~43.80 | Project Name: NWIRP - Bethpage
Date Developed: 10-29-10 | Screen Length (ft.): 10 | Project Number: 112G02230
Dev. Method: Air lift / Submersible Pump | Specific Capacity: NA
Pump Type: Compressor / 2" Grundfos | Casing ID (in.): 2"

Time Start: 0930	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C) ✓	pH ✓	Specific Conductance (Units _____) ✓	Turbidity (NTU) ✓	Remarks (odor, color, etc.)
0950	NA	100	closed screen	16.30	6.10	.132	36.0	slightly cloudy
1000	NA	210	closed screen	16.32	6.21	.132	26.0	clear
1010	NA	290	"	16.25	6.26	.101	18.6	clear
1020	NA	375	"	16.23	6.26	.100	19.9	clear
1030	NA	460	"	16.16	6.24	.100	16.4	clear
1034	NA	500	"	16.14	6.23	.100	15.9	clear
* Compressor turned off from 1035 to 1110								
1122	NA	600	"	16.28	6.26	.099	5.46	clear
1132	NA	690	"	16.30	6.26	.098	3.26	clear
* 1137	(Shutdown)	730						

Air Lift

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of _____

Site: NWIRP (1) | Depth to Bottom (ft.): 156 | Project Name: NWIRP-Bethpage
Well: MW-303 I2 | Static Water Level Before (ft.): 44.18 | Project Number: 112G02238
Date Installed: _____ | Static Water Level After (ft.): 44.18 | Site Geologist: ER
Date Developed: 3/31/10 | Screen Length (ft.): 10' | Drilling Co.: Miller
Dev. Method: 2" Submersible Grundfos | Specific Capacity: NA
Pump Type: Grundfos | Casing ID (in.): 2"

pumping rate = 2.1 GPM

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks (odor, color, etc.)
Start 1605								
Grundfos 1625	NA	40	45.18	16.19	6.58	0.114	56.4	clear
1635	NA	60	45.18	16.18	6.58	0.114	33.2	clear * moved pump up 2'
1645	NA	80	45.12	16.33	6.34	0.111	92.1	cloudy
1655	NA	100	45.12	16.00	6.31	0.110	10.76	clear
1705	NA	120	45.12	16.14	6.19	.108	6.77	clear
Shut pump down @ 1705, will pump at 2' highest level tomorrow + clean fines off bottom.								
11-1-10: Start up = 0900 Begin			44.20	284 Hz		pump moved to highest level		2.13 gpm
0910	NA	140	45.15	14.74	5.65	0.130	9.56	clear
0920	NA	160	45.15	15.21	6.00	0.111	3.52	"
0930	NA	180	45.15	15.20	6.00	0.110	1.17	" Dropped pump to bottom to clear fines.
0940	NA	200	45.10	14.25	5.91	0.109	9.50	
0950	NA	220	45.10	15.00	5.88	0.107	2.46	
Stopped pump @ 0955 with 230 gallons removed								
* Cumulative airlift + pump = 730 + 230 = 960 gallons removed								

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Well: MW-303D
Site: NWIRP (1)
Date Installed: ___
Date Developed: 10-26-10
Dev. Method: Air Lift / Grundfos
Pump Type: 2" Grundfos compressor

Depth to Bottom (ft.): 213'
Static Water Level Before (ft.): ~44.50'
Static Water Level After (ft.): ~44.50'
Screen Length (ft.): 10'
Specific Capacity: NA
Casing ID (in.): 2"

Responsible Personnel: Ellen Berkheiser
Drilling Co.: Miller
Project Name: NWIRP-Bethpage
Project Number: 112G02230

Time Start: 1430	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C) ✓	pH ✓	Specific Conductance (Units _____) ✓	Turbidity (NTU) ✓	Remarks (odor, color, etc.)
1500	NA	120	closed system	16.63	6.20	.207	44.7	slightly cloudy
1510	NA	180	"	16.50	6.68	.149	12.8	clear
1520	NA	210	"	16.06	7.07	.145	9.36	clear
1530	NA	240	"	16.15	7.18	.145	205	cloudy
1540	NA	320	"	15.98	7.22	.134	13.1	clear
1550	NA	400	"	16.00	7.16	.128	6.73	clear
1600	NA	500	"	15.91	7.16	.133	14.3	clear
Pump turned off from 1600 hours to 1700 hours for tank to be emptied.								
1710	NA	540	"	16.13	7.21	.139	113	Slightly Cloudy
1720	NA	580	"	16.05	7.13	.134	0.20	clear
1730	NA	620	"	16.03	7.08	.132	0.00	clear
1740	NA	660	"	15.91	7.05	.132	0.00	clear

adjusted flow *

Air Lift

Air compressor

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Site: NWIRP (1) | Depth to Bottom (ft.): 213' | Project Name: NWIRP - Bethpage
Well: MW-303D | Static Water Level Before (ft.): 44.20' | Project Number: 112602230
Date Installed: | Static Water Level After (ft.): 44.20 | Site Geologist: EB
Date Developed: 10-31-10 | Screen Length (ft.): 10' | Drilling Co.: Miller
Dev. Method: Grundfos 2" | Specific Capacity: NA
Pump Type: Submersible Pump ~2 GPM | Casing ID (in.): 2"

Time start 1210	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
1220	NA	20	44.20	17.15	6.54	0.141	402.5	clear
1230	NA	40	44.85	16.99	6.66	0.139	174.9	"
1240	NA	60	45.22	16.77	6.72	0.140	98.7	"
1250	NA	80	45.22	16.70	6.77	0.134	74.7	"
1300	NA	100	45.30	16.64	6.71	0.139	44.1	" * moved pump up 2' *
1310	NA	120	45.34	16.57	6.67	0.135	470	Murky
1320	NA	140	45.34	16.51	6.60	0.134	319	Murky
1330	NA	160	45.34	16.58	6.53	0.131	186	cloudy
1340	NA	180	45.34	16.21	6.49	0.133	92.4	slightly cloudy
1350	NA	200	45.34	16.34	6.46	0.128	46.1	clear * moved pump
1400	NA	220	45.34	16.38	6.48	0.130	320	up 2'
1410	NA	240	45.34	16.42	6.49	0.131	192	murky
1420	NA	260	45.34	16.44	6.49	0.132	116	cloudy
1430	NA	280	45.34	16.40	6.48	0.133	80.8	clear
1440	NA	300	45.34	16.39	6.49	0.133	32.8	clear
* Moved to bottom to clear off settled fines								
1500	NA	360	45.34	16.39	6.49	0.133	45.9	clear
Stopped pump @ 1515			dewatered tank					

2" Submersible grundfos

Cumulative Air lift + submersible → 660 + 370 = 1030 gallons

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPS1-TT-MW304S
Site: Bethpage Site 1
Date Installed: 11-13-10
Date Developed: 11-16-10 and 11-17-10
Dev. Method: Grundfos and hand surge
Pump Type: Grundfos RediFlo

Depth to Bottom (ft.): _____
Static Water Level Before (ft.): 47.43 BTOC
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: 112G02230

pump 1' off bottom, surge after each reading

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP
1157	Start	up grundfos	47.43					
1209	flow rate		49.25	16.17	6.75	0.116	568	223 light brown
1224	2.5 gpm	50 gal	49.23	16.60	6.86	0.067	343	187 light brown tint
1239	2.5 gpm		49.12	16.54	6.38	0.052	85.2	205 light brown tint
1254	2.5	100 gal	48.93	16.53	6.11	0.046	60.7	206 clearish
1309	2.5		48.99	16.59	5.81	0.045	38.6	204 clearish
1325	2.5	170	48.95	16.47	5.58	0.042	18.1	219 clear
1350	2.5	220	48.89	16.53	5.47	0.040	20.6	223 clear
1405	2.5	260	48.87	16.40	5.48	0.040	7.52	227 clear
1420	2.5	300	48.82	16.45	5.50	0.039	9.83	227 clear
1435	2.5	340	48.80	16.39	5.40	0.040	7.20	234 clear
1450	2.5	380	48.85	16.32	5.32	0.038	6.11	233 clear
1505	2.5	425	48.83	16.22	5.34	0.039	3.75	246 clear
	empty tank, surge entire water column							
1535	Restart	pump						
1540	2.5	500	48.23	16.35	5.31	0.036	42.89	238 light brown
1555	2.5	535	48.40	16.07	5.44	0.039	48.8	239 " "
1610	2.5	570	48.31	16.27	5.41	0.036	6.80	234 clearish

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-TT-MW304S
Site: Bethpage Site1
Date Installed: 11-13-10
Date Developed: 11-16-10 and 11-17-10
Dev. Method: Grundfos and hand surge
Pump Type: Grundfos RediFlo

Depth to Bottom (ft.): _____
Static Water Level Before (ft.): 47.43 BTOC
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: 112G02230

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP	
11-16-10									
1625	Flow rate	620	48.37	16.36	5.31	0.036	8.16	247	clear
1640	2.5 gpm	670	48.40	16.34	5.27	0.037	6.76	245	clear
	Shut down pump for day								
11-17-10									
0750			47.42	16.46	5.22	0.097	131	241	tan tint
0755			48.21	↓	↓	↓	↓	↓	↓
0810			48.23	16.96	5.57	0.041	24.9	213	clear
0825		750	48.27	16.74	5.45	0.037	10.16	225	clear
0840	2.5gpm	785	48.29	17.28	5.42	0.038	8.60	241	clear
0855		815	48.29	16.61	5.33	0.036	4.44	243	clear
0910		850	48.31	16.50	5.28	0.037	2.81	254	clear
0925		890	48.36	16.82	5.23	0.037	2.48	252	clear
0945		925	48.29	17.11	5.21	0.034	1.54	250	clear
	Empty tank w/ 950 gal total taken out			~~16.7~~		~~0.035~~			
1010	Restart pump								
1025		980	48.26	16.71	5.25	0.035	2.64	278	clear
1040		1020	48.28	16.80	5.25	0.036	1.93	258	clear
1055		1070	48.30	17.04	5.17	0.035	1.33	259	clear
1110		1110	48.25	17.74	5.23	0.036	1.72	260	clear
Pump on bottom									
1125		1150	48.30	17.65	5.26	0.036	1.17	262	clear

Finish development

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPSI-TT-MW304I1
Site: NWIRP Bethpage Site 1
Date Installed: 11-12-10
Date Developed: 11-13-10 and 11-15-10
Dev. Method: Air Lift + Grundfos
Pump Type: Air Lift + Grundfos

Depth to Bottom (ft.): 112' bgs
Static Water Level Before (ft.): 47.6
Static Water Level After (ft.): _____
Screen Length (ft.): 10
Specific Capacity: _____
Casing ID (in.): 2"

Responsible Personnel: Jacob Birkett
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: 112G01230

Bottom of 1" PVC (airlift) at 87' bgs

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) ORP
0813			47.6 static, 45.1 bgs	15.11	6.13	0.206	6441	367 light brown
0828		70	—	15.56	6.81	0.180	1848	233 light brown
0843		100	—	15.38	7.00	0.173	271	229 light brown
0858		140	—	15.28	7.10	0.189	70.4	235 slight light brown tint
0913		170	—	15.22	7.15	0.188	54.1	231 slight tan tint
0928		210	—	15.21	7.19	0.190	31.4	230 slight tan tint
0943		250	—	15.20	7.22	0.194	20.9	232 clear
0958		310	—	15.28	7.26	0.212	26.8	231 clear
1013		380	—	15.40	7.30	0.232	7.06	232 clear
1018		400	Shut off pump to dump tank					
	Drillers need to set up on MW-304I to drill, stop development @ MW-304I for day							
0820	Start up airlift							
0824			—	15.02	6.17	0.308	2660	249 light brown
0839		75 gal tab, 475 total	—	14.66	6.98	0.200	198	230 slight light brown tint
0854		525		14.56	6.96	0.189	620	227 clear
0909				14.75	7.13	0.186	28.1	225 clear
0924		660		14.64	7.20	0.187	24.8	219 clear
0939		710		14.70	7.19	0.189	14.8	216 clear

11-13-10 — Airlift — 11-15-10

11-14-10

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BPS1-TT-MW304I1 | Depth to Bottom (ft.): 112' bgs | Responsible Personnel: Jacob Birkett
Site: Bethpage Site 1 | Static Water Level Before (ft.): 47.6 | Drilling Co.: Miller Drilling
Date Installed: 11-12-10 | Static Water Level After (ft.): | Project Name: NWIRP Bethpage
Date Developed: 11-13-10 and 11-15-10 | Screen Length (ft.): 10 | Project Number: 112602230
Dev. Method: Air Lift and grundfos | Specific Capacity:
Pump Type: Air Lift and Grundfos Red.flo | Casing ID (in.): 2"

0439

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks ORP (odor, color, etc.)
0954		775	–	14.74	7.22	0.185	10.1	217 clear
1009		830		14.65	7.21	0.185	11.7	219 clear
1010	Empty	tank done	w/airlift					
	flowrate		47.72					
1040	2 gpm		48.59	15.64	7.33	0.190	1704	207 light brown
1055	2 gpm		48.48	15.76	6.56	0.180	246	167 tan tint
1110	2.0		48.49	15.77	6.45	0.186	136	162 tan tint
1125	2.6		48.88	15.81	6.47	0.187	140	159 tan tint
1140	2.0		48.92	16.03	6.47	0.181	82.8	155 slight tan tint
1155	2.0		48.87	15.81	6.48	0.191	91.1	150 " "
1210	2.0		48.90	15.94	6.47	0.191	93.4	150 " "
1225	2.0		48.92	15.88	6.54	0.194	40.7	181 " "
1240	2.0		48.92	15.90	6.47	0.188	14.4	160 clear
1255	2.0	1,130	48.92	15.71	6.51	0.187	47.0	166 clear
1310	2.0	1,160	48.92	16.00	6.47	0.186	22.7	160 clear
	shut	dow grundfos	empty tank					

airlift

Grundfos

surge after every reading pump 1' from bottom

stop surge

drop pmp to bottom

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: MW-304I2
Site: NWIRP Bethpage
Date Installed: 11/9/10
Date Developed: 11/10/10
Dev. Method: Air Lift
Pump Type: Air Lift

Depth to Bottom (ft.): 150.3
Static Water Level Before (ft.): 45.27
Static Water Level After (ft.): _____
Screen Length (ft.): 10'
Specific Capacity: _____
Casing ID (in.): 2" PVC

Responsible Personnel: Chuck Meyer
Drilling Co.: Miller Drilling
Project Name: NWIRP Bethpage
Project Number: _____

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks (odor, color, etc.) DO ORP
0830		0.0	Air Lift	14.54	6.29	0.179	38.9	10.91 247
0848		100	Air Lift	14.52	6.85	0.141	6.81	10.68 227
0857		200	Air Lift	14.69	6.89	0.135	6.04	10.47 222
0910		300	Air Lift	14.65	7.94	0.136	1.19	10.54 201
0925		400	Air Lift	14.68	7.63	0.141	1.97	10.55 205
0955		400	Air Lift	15.48	7.33	0.148	3.83	10.62 212
1007		500	Air Lift	15.07	7.12	0.149	1.65	10.63 197
1024		600	Air Lift	14.73	6.81	0.149	2.29	10.64 195
1043		700	Air Lift	14.84	6.57	0.150	0.16	10.86 203
1052		500	Air Lift	14.65	6.42	0.148	0.00	10.65 212
1155		800	46.03	15.36	6.33	0.192	9.77	8.08 230
1210		840	46.35	15.93	6.33	0.157	5.80	8.75 217
1225		880	46.35	16.06	5.83	0.153	3.51	8.64 211
1240		920	46.35	15.97	5.66	0.152	5.99	8.46 215
1255		960	46.36	16.12	6.53	0.154	6.53	8.79 221
1310		1,000	46.36	16.09	5.52	0.154	157	8.03 233 surged the well
1325		1040	46.36	16.01	5.52	0.155	10.78	8.01 241
1340		1080	46.36	16.05	5.50	0.154	8.27	8.11 230

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: MW-304I2
Site: NWIRP Bethpage
Date Installed: 10/9/10
Date Developed: 10/10/10
Dev. Method: Surge + Purge
Pump Type: Grundfos Redi flo-2

Depth to Bottom (ft.): 150.3
Static Water Level Before (ft.): 46.03
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 2"

Responsible Personnel: Chuck Meyer
Drilling Co.: Martin Drilling
Project Name: NWIRP Bethpage
Project Number:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units _____)	Turbidity (NTU)	Remarks (odor, color, etc.) DO ORP
1355		1,100	46.37	15.92	5.52	0.153	7.94	7.96 228
1410		1,120	46.37	15.97	5.51	0.154	4.91	8.52 230
1455		1,160	46.37	15.94	5.49	0.154	13.8	7.58 237
1510		1,200	46.37	15.86	5.44	0.153	4.68	8.10 240
1550		1,200	46.35	15.73	5.51	0.155	26.9	7.93 233
1605		1,240	46.36	15.89	5.47	0.152	7.13	7.95 236
1620		1,270	46.34	15.87	5.48	0.152	26.7	7.82 233
1635		1,300	46.35	15.84	5.46	0.151	10.78	7.97 235
1650		1,320	46.36	15.74	5.45	0.153	1.40	7.83 239
1705		1,350	46.36	15.77	5.45	0.151	1.40	7.85 238

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Page ___ of ___

Well: MW-304D
Site: NWIRP (1)
Date Installed: ___
Date Developed: 10-30-10
Dev. Method: Air Lift + / Submersible
Pump Type: Compressor / 2" Grundfos

Depth to Bottom (ft.): 190'
Static Water Level Before (ft.): 46.00
Static Water Level After (ft.): 46.00
Screen Length (ft.): 10'
Specific Capacity: NA
Casing ID (in.): 2"

Responsible Personnel: Ellen Berkhite
Drilling Co.: Miller
Project Name: NWIRB - Bethpage
Project Number: 112G02230

*Cumulative Water removed: 550 + 350 = 900 gallons

Air Lift

Time Start 1330:	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
1410	NA	150	closed system	15.36	6.20	0.130	31.1	clear
1420	NA	190	"	14.96	6.32	0.126	14.5	clear
1430	NA	220	"	15.15	6.55	0.125	16.2	clear
1440	NA	260	"	15.02	6.50	0.120	11.5	clear
1450	NA	300	"	15.00	6.54	0.116	22.3	clear
1500	NA	340	"	14.99	6.52	0.114	13.0	clear
1510	NA	380	"	14.87	6.56	0.113	12.8	clear
1520	NA	420	"	14.71	6.49	0.112	8.26	clear
1530	NA	460	"	14.64	6.49	0.110	6.60	clear
1540	NA	510	"				6.16	clear
1545	Shutdown Tank Full - Emptied Tank ~550 gallons							

Submersible Grundfos

Start 0830 on 10-31-10 Measured 2.02 gpm 27Hz Pump 2' off bottom

0930	NA	120	47.40	15.30	5.66	0.138	14.2	clear (Moved pump up)
0940	NA	140	47.40	14.99	5.70	0.125	416	slightly cloudy 2"
0950	NA	160	47.40	15.27	5.87	0.116	67.7	clear
1000	NA	180	47.40	15.23	5.74	0.115	17.4	clear
1010	NA	200	47.40	15.20	5.71	0.114	12.9	clear (Moved pump up 2")
1020	NA	220	47.45	15.40	5.38	0.114	46.6	clear
1030	NA	240	47.45	15.46	5.87	0.112	66.5	clear
1040	NA	260	47.45	15.45	5.91	0.113	57.2	clear
1050	NA	280	47.45	15.45	5.89	0.112	7.67	clear
1100	NA	300	47.45	15.44	5.89	0.112	4.44	clear Dropped pump to bottom
Stop → 1125	NA	350	47.45	15.49	5.89	0.112	12.0	clear

GROUNDWATER LEVEL MEASUREMENT SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: NWIRP Bethpage Site 1 **Project No.:** 112G02230
Location: **Personnel:** J. Birkett, V. Shickram
Weather Conditions: 50° mostly sunny **Measuring Device:**
Tidally Influenced: Yes ___ No X **Remarks:**

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-301S	11-29-10	0940			55.77			
MW-301D		0941			56.48			
MW-301I		0943			55.71			
MW-2		0945			49.46			
BPSI-FW-MW03		0949			53.02			
BPSI-FW-MW02		0952			54.53			
BPSI-FW-MW01		0956			53.89			slip coupling came loose
MW-304D		1003			48.32			
MW-304I2		1005			48.16			
MW-304I1		1006			47.91			
MW-304S		1007			47.66			
MW-29D		1009			44.04			
MW-29I		1010			43.82			JB 1-4-11
Well south of SB-3009 MW-4		1013			43.34			~~Not sure of location~~
MW-302D		1018			44.66			
MW-302I2		1021			44.36			
MW-302I1		1023			44.07			
MW-302S		1026			44.00			
MW-303D		1033			44.71			
MW-303I2		1035			44.53			
MW-303I1		1037			44.15			
MW-303S	↓	1038			43.71			

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name:	NWIRP Bethpage	**Project No.:**	112G02230
Location:	Site 1	**Personnel:**	VAS / JB
Weather Conditions:	clear cold	**Measuring Device:**	Herron Dipper T
Tidally Influenced:	Yes ___ No ✓	**Remarks:**	—

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
BPSI-TT-MW301S	3-3-11	0903			56.06			
BPSI-TT-MW301D					56.91			
TT-MW301I		0906			56.07			
MW 2		0911			49.93			
FW-MW01		0916			54.52			
FW-MW02		0917			55.15			
FW-MW03		0919			53.64			
MW29I		0922			44.34			
MW29D		0924			44.53			
TT-MW304D		0926			48.86			
TT-MW304I2					48.72			
TT-MW304I1		0928			48.54			
TT-MW304S					48.26			
MW-4		0931			43.91			South of Plant 3
TT-MW303D					45.21			
TT-MW303I2					45.05			
TT-MW303I1					44.74			
TT-MW303S					44.36			
TT-MW302S					44.61			
TT-MW302I1					44.63			
TT-MW302I2					44.88			
TT-MW302D					45.18			

* All measurements to the nearest 0.01 foot

MONITORING WELL GROUNDWATER SAMPLE LOGS SHEETS AND LOW FLOW PURGE DATA SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

JB 1-4-11

Project Site Name: Bethpage Site 1
Project No.: 112G02230

Sample ID No.: BPSI-TT-MW303S-20100826
Sample Location: ~~BPSI-TT-MW304I-20100826~~ BPSI-TT-MW303S
Sampled By: GOA
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 8/26/10	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	~~Other~~ ORP (mV)
Time: 1750								
Method: Direct	colorless	7.76	0.222	21.81	29.2	7.44	—	29.9

PURGE DATA:

Date: 8/26/10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peri. Flow								
Monitor Reading (ppm): 0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 55.84								
Static Water Level (WL): 42.66								
One Casing Volume(gal/L):								
Start Purge (hrs): 1720								
End Purge (hrs): 1750								
Total Purge Time (min): 30								
Total Vol. Purged (gal/L): 3								

Geotech Flow Log Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	40 mL clear glass vial	3
PCB		1 L amber glass bottle	2

OBSERVATIONS / NOTES:

well screened 46-56' below TOC

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

BPSI-TT-MW303$

PROJECT SITE NAME: Bethpage Site 1
PROJECT NUMBER: 112602230

WELL ID.: JB 1-4-11 ~~BPSI-TW303~~
DATE: 8/26/10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1720	42.65	0								Start purge
1725	42.67	325	9.84	0.309	139	8.25	20.53	-30.5	—	white/yellow tint
1728	42.65	325	9.79	0.271	126	7.85	20.76	-17.2	—	white/yellow tint
1731	42.65	350	9.95	0.267	107.7	7.63	21.33	-9.4	—	white/yellow tint
1734	42.65	350	9.96	0.260	80.3	7.54	22.08	-4.3	—	white tint
1737	42.65	350	9.99	0.256	59.3	7.57	22.18	0.6	—	white tint
1741	42.65	350	9.89	0.234	44.4	7.60	21.72	13.2	—	white tint
1744	42.65	440	9.82	0.228	34.6	7.65	21.54	20.6	—	white tint
1747	42.65	300	9.76	0.223	30.7	7.47	21.57	27.2	—	white tint
1750	42.65	300	9.76	0.222	29.2	7.44	21.81	29.9	—	white tint, collect sample

SIGNATURE(S): _____

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G02230

Sample ID No.: BPS1-FW-MW01-20101130
Sample Location: FW-MW01
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1230	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Submersible pump	Clear	7.21	0.497	17.91	11.0	3.79	0.1	193

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD): 63.47		(See	Low	Flow	purge	sheets)		
Static Water Level (WL): 53.85								
One Casing Volume(gal/L):								
Start Purge (hrs): 1125								
End Purge (hrs): 1230								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	None	2 x 1 Liter Amber bottles	Yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed.

Circle if Applicable:

MS/MSD —

Duplicate ID No.: —

Signature(s):

WPAR

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (Site 1)
PROJECT NUMBER: 112602230
WELL ID.: BPSI-FW-MW01
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1115	53.85	—	—	—	—	—	—	—	-	Initial
1125	53.87	350	7.27	0.537	125	6.20	15.27	76	0.1	slightly cloudy (Tan)
1130	53.88	325	7.18	0.520	110	4.33	16.63	111	0.1	Tinted (Tan)
1135	53.87	300	7.17	0.511	102	3.99	17.03	146	0.1	Tinted (Tan)
1140	53.87	300	7.19	0.500	90.3	3.75	17.05	163	0.1	Tinted (Tan)
1145	53.87	300	7.22	0.495	70.9	3.83	16.90	187	0.1	slight Tint (Tan)
1150	53.87	300	7.23	0.497	68.6	3.76	17.18	192	0.1	slight Tint (Tan)
1155	53.87	300	7.23	0.496	57.5	3.84	17.29	191	0.1	very slight Tint (Tan)
1200	53.86	300	7.23	0.496	48.4	3.91	17.37	188	0.1	very slight Tint (Tan)
1205	53.86	300	7.23	0.496	42.3	3.92	17.44	186	0.1	very slight Tint (Tan)
1210	53.86	300	7.22	0.497	37.1	4.00	17.60	188	0.1	clear
1215	53.86	300	7.22	0.496	29.0	3.93	17.71	189	0.1	clear
1220	53.86	300	7.21	0.497	22.7	3.90	17.80	191	0.1	clear
1225	53.86	300	7.21	0.497	14.5	3.82	17.88	193	0.1	clear
1230	53.86	300	7.21	0.497	11.0	3.79	17.91	193	0.1	clear - collect sample

SIGNATURE(S): _____

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G02230

Sample ID No.: BPS1-FW-MW02-20101130
Sample Location: FW-MW02
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1415								
Method: Submersible pump	clear	6.82	0.268	16.88	1.2	6.22	0.1	277

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2 inch PVC								
Total Well Depth (TD): 64.18'								
Static Water Level (WL): 54.51'		(See Low Flow purge sheets)						
One Casing Volume(gal/L):								
Start Purge (hrs): 1310								
End Purge (hrs): 1415								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	6
PCBs	None	2 x 1 Liter Amber bottles	4

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed.

Circle if Applicable:

MS/MSD	Duplicate ID No.: (2400 hrs)
—	BPS1-DUP02-20101130

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (Site 1)
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-FW-MW02
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1305	54.51	—	—	—	—	—	—	—	—	Initial
1310	54.54	350	6.87	0.261	70.6	9.35	15.56	154	0.1	slight Tint (Tan)
1315	54.52	300	6.83	0.266	72.0	7.97	16.22	138	0.1	slight Tint (Tan)
1320	54.52	300	6.83	0.267	53.1	6.73	17.32	151	0.1	very slight Tint (Tan)
1325	54.52	300	6.84	0.271	28.6	6.27	17.74	167	0.1	clear
1330	54.52	300	6.86	0.276	21.0	6.00	17.91	179	0.1	clear
1335	54.52	300	6.87	0.276	14.1	5.98	17.79	200	0.1	clear
1340	54.52	300	6.88	0.278	13.7	6.07	17.68	197	0.1	clear
1345	54.52	300	6.85	0.271	12.9	6.10	17.49	208	0.1	clear
1350	54.52	300	6.82	0.271	8.0	6.12	17.30	225	0.1	clear
1355	54.52	300	6.81	0.266	5.4	6.15	17.18	249	0.1	clear
1400	54.52	300	6.81	0.267	3.7	6.16	17.06	266	0.1	clear
1405	54.52	300	6.82	0.267	2.0	6.17	16.99	271	0.1	clear
1410	54.52	300	6.82	0.268	1.4	6.20	16.93	275	0.1	clear
1415	54.52	300	6.82	0.268	1.2	6.22	16.88	277	0.1	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G01230

Sample ID No.: BPS1-FW-MW03-20101130
Sample Location: FW-MW03
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1555								
Method: Submersible pump	clear	6.35	0.278	17.69	5.0	5.62	0.1	259

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2 inch PVC								
Total Well Depth (TD): 67'								
Static Water Level (WL): 53.00'		(See Low Flow purge sheets)						
One Casing Volume(gal/L):								
Start Purge (hrs): 1455								
End Purge (hrs): 1555								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	None	2 x 1 Liter Amber bottles	Yes

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (site 1)
PROJECT NUMBER: 112G02230
WELL ID.: BPS1-FW-MW03
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1450	53.00	–	–	–	–	–	–	–	–	Initial
1455	53.00	300	6.36	0.307	47.5	7.74	16.08	138	0.1	cloudy (Brown)
1500	53.01	300	6.41	0.301	242	6.52	17.27	147	0.1	cloudy (Brown)
1505	53.01	300	6.42	0.296	199	6.47	17.55	166	0.1	Tinted (Tan)
1510	53.01	300	6.42	0.297	155	6.48	17.66	186	0.1	Tinted (Tan)
1515	53.01	300	6.41	0.295	81.5	6.51	17.68	203	0.1	slight Tint (Tan)
1520	53.01	300	6.39	0.287	47.7	5.99	17.59	222	0.1	very slight Tint (Tan)
1525	53.01	300	6.38	0.281	21.3	5.60	17.63	231	0.1	clear
1530	53.01	300	6.37	0.280	17.6	5.69	17.62	239	0.1	clear
1535	53.01	300	6.36	0.280	9.4	5.63	17.61	248	0.1	clear
1540	53.01	300	6.35	0.278	8.6	5.50	17.54	255	0.1	clear
1545	53.01	300	6.35	0.279	7.2	5.61	17.60	254	0.1	clear
1550	53.01	300	6.35	0.277	6.1	5.66	17.65	257	0.1	clear
1555	53.01	300	6.35	0.278	5.0	5.62	17.69	259	0.1	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: ~~NWIRP Calverton~~ Bethpage
Project No.: ~~112G01655~~ 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-HN-MW29I-20101201
Sample Location: BPSI-HN-MW29I
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 12-1-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1347	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow GrundFos	clear	11.14	0.436	15.40	0.0	6.97	0.0	-3

PURGE DATA:

Date: 12-1-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow GrundFos	SEE LOW FLOW PURGE SHEET FOR DETAILS							
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 4" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 43.50								
One Casing Volume(gal/L):								
Start Purge (hrs): 1245								
End Purge (hrs): 1347								
Total Purge Time (min): 62								
Total Vol. Purged (gal/L): 7 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 40-mL clear glass vials	yes
MEE	HCl	2 40-mL clear glass vials	no
PCB	~	2 1-L amber glass bottles	yes

OBSERVATIONS / NOTES:

pH very high (maybe cracked casing)

Circle if Applicable:

MS/MSD	Duplicate ID No.:
~	~

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: HN-BPSI-MW29I
DATE: 12-1-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1245	43.50									
1250	44.61	350	10.84	0.469	17.0	7.72	14.85	34	0.0	clear
1255	44.65	350	10.98	0.477	16.5	7.34	15.05	22	0.0	clear 1 gal
1301	44.79	500	11.04	0.476	4.4	7.16	15.17	11	0.0	clear
1306	44.79	500	11.08	0.471	0.0	7.07	15.25	7	0.0	clear 2 gal
1311	44.79	500	11.10	0.468	0.0	7.04	15.37	3	0.0	clear
1319	44.79	500	11.13	0.459	0.0	7.00	15.43	-1	0.0	clear 3 gal
1324	44.67	350	11.14	0.458	0.0	6.99	15.44	-2	0.0	clear 4 gal
1329	44.67	350	11.14	0.453	0.0	6.98	15.40	-3	0.0	clear
1334	44.67	350	11.14	0.446	0.0	6.96	15.49	-3	0.0	clear 5.5 gal
1339	44.67	350	11.14	0.442	0.0	6.97	15.41	-3	0.0	clear 6 gal
1344	44.67	350	11.14	0.436	0.0	6.97	15.40	-3	0.0	
1347	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-MW301S-20101201
Sample Location: MW-301S
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 12-1-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 0915	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Submersible pump	clear	6.96	0.106	14.75	0.0	2.50	0.1	-88

PURGE DATA:

Date: 12-1-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD): ~~5~~								
Static Water Level (WL): 55.75'		(see	low	Flow	purge	sheets)		
One Casing Volume(gal/L):								
Start Purge (hrs): 0815								
End Purge (hrs): 0915								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 4.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	yes
PCBs	None	2 x 1 liter Amber bottles	yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (site 1)
PROJECT NUMBER: 112G02230

WELL ID.: BPS1-MW301S
DATE: 12-1-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0810	55.75	–	–	–	–	–	–	–	–	Initial
0815	55.76	350	7.15	0.120	40.2	5.34	14.41	-1	0.1	slight Tint (Tan)
0820	55.76	300	6.98	0.116	27.1	3.64	14.97	19	0.1	clear
0825	55.76	300	6.94	0.119	16.3	3.24	15.06	7	0.1	clear
0830	55.76	300	7.02	0.122	7.4	2.74	14.98	-27	0.1	clear
0835	55.76	300	7.03	0.121	2.4	2.57	15.01	-44	0.1	clear
0840	55.76	300	7.04	0.119	1.0	2.54	15.02	-48	0.1	clear
0845	55.76	300	7.03	0.117	0.0	2.48	15.01	-60	0.1	clear
0850	55.76	300	7.01	0.114	0.0	2.52	14.96	-71	0.1	clear
0855	55.76	300	6.98	0.111	0.0	2.51	14.89	-82	0.1	clear
0900	55.76	300	6.96	0.109	0.0	2.50	14.82	-85	0.1	clear
0905	55.76	300	6.96	0.108	0.0	2.51	14.79	-86	0.1	clear
0910	55.76	300	6.96	0.107	0.0	2.52	14.77	-87	0.1	clear
0915	55.76	300	6.96	0.106	0.0	2.50	14.75	-88	0.1	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (site 1)
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-MW301I-20101201
Sample Location: MW-301I
Sampled By: VAB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 12-1-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1230	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: submersible pump	clear	7.53	0.068	16.34	0.0	5.41	0.0	280

PURGE DATA:

Date: 12-1-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):		(see	low	flow	purge	sheets)		
Static Water Level (WL): 55.60								
One Casing Volume(gal/L):								
Start Purge (hrs): 1130								
End Purge (hrs): 1230								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	None	2 x 1 Liter Amber bottles	Yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (site 1)
PROJECT NUMBER: 112G02230

WELL ID.: BPS1-MW301I
DATE: 12-1-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1125	55.60	—	—	—	—	—	—	—	—	Initial
1130	55.62	350	7.03	0.080	33.3	6.82	14.86	199	0.0	very slight Tint (Tan)
1135	55.61	380	7.38	0.076	14.9	5.73	15.63	201	0.0	clear
1140	55.60	300	7.39	0.072	3.8	5.45	15.83	230	0.0	clear
1145	55.60	300	7.40	0.071	1.5	5.43	15.97	242	0.0	clear
1150	55.60	300	7.42	0.070	1.4	5.36	16.02	249	0.0	clear
1155	55.60	300	7.44	0.070	1.5	5.40	16.08	255	0.0	clear
1200	55.60	300	7.48	0.070	0.6	5.49	16.13	259	0.0	clear
1205	55.60	300	7.51	0.070	0.2	5.44	16.20	263	0.0	clear
1210	55.60	300	7.54	0.070	0.0	5.41	16.25	267	0.0	clear
1215	55.60	300	7.55	0.069	0.0	5.36	16.31	272	0.0	clear
1220	55.60	300	7.55	0.069	0.0	5.42	16.30	276	0.0	clear
1225	55.60	300	7.54	0.069	0.0	5.39	16.33	278	0.0	clear
1230	55.60	300	7.53	0.068	0.0	5.41	16.34	280	0.0	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G02236

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-MW301D-20101201
Sample Location: MW-301D
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 12-1-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1050	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Submersible pump	Clear	5.89	0.339	16.16	0.0	2.97	0.2	207

PURGE DATA:

Date: 12-1-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2 inch PVC								
Total Well Depth (TD):								
Static Water Level (WL): 56.36'		(See Low Flow purge sheets)						
One Casing Volume(gal/L):								
Start Purge (hrs): 0950								
End Purge (hrs): 1050								
Total Vol. Purged (gal/L): 4.75								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 X 40 ml vials	yes
PCBs	None	2 X 1 Liter Amber bottles	

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (site 1)
PROJECT NUMBER: 112GO2230
WELL ID.: BPS1-MW301D
DATE: 12-1-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0940	56.36	–	–	–	–	–	–	–	–	Initial
0950	56.38	350	6.14	0.464	32	5.21	14.88	165	0.2	very slight Tint (Tan)
0955	56.37	300	5.88	0.510	12.4	4.29	15.52	222	0.2	clear
1000	56.37	300	5.87	0.489	4.6	3.59	15.75	238	0.2	clear
1005	56.37	300	5.89	0.456	1.3	3.17	15.89	239	0.2	clear
1010	56.37	300	5.93	0.399	1.1	3.08	15.92	233	0.2	clear
1015	56.37	300	5.95	0.374	0.5	3.12	15.98	221	0.2	clear
1020	56.37	300	5.93	0.355	0.3	3.04	16.02	218	0.2	clear
1025	56.37	300	5.90	0.356	0.0	3.07	16.07	209	0.2	clear
1030	56.37	300	5.89	0.349	0.0	3.03	16.10	210	0.2	clear
1035	56.37	300	5.89	0.344	0.0	3.04	16.12	211	0.2	clear
1040	56.37	300	5.89	0.342	0.0	3.01	16.14	209	0.2	clear
1045	56.37	300	5.89	0.340	0.0	2.99	16.15	208	0.2	clear
1050	56.37	300	5.89	0.339	0.0	2.97	16.16	207	0.2	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (site 1)
Project No.: 112G02230

Sample ID No.: BPSI-MW302F-20101130
Sample Location: MW-302F
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1020	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Submersible pump	clear	6.89	0.674	18.40	1.1	5.57	0.0	13

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.00'		(see	low	Flow	purge	sheets)		
One Casing Volume(gal/L):								
Start Purge (hrs): 0920								
End Purge (hrs): 1020								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 X 40 ml vials	9
PCBs	None	2X 1 liter Amber bottles	6

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD (Yes)

Duplicate ID No.: —

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (Site 1) **WELL ID.:** BPSI-MW302S

PROJECT NUMBER: 112G02230 **DATE:** 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0910	44.00	-	-	-	-	-	-	-	-	Initial
0920	43.98	350	7.98	0.210	18.4	5.79	16.49	-273	0.2	clear
0925	44.00	300	7.44	0.166	11.2	6.44	18.02	-68	0.1	clear
0930	44.00	300	7.35	0.135	8.1	6.50	19.04	-35	0.1	clear
0935	44.00	300	7.32	0.125	3.6	6.05	19.19	-29	0.0	clear
0940	44.00	300	7.27	0.115	1.3	5.72	18.88	-14	0.0	clear
0945	44.00	300	7.20	0.099	1.6	5.63	18.64	-3	0.0	clear
0950	44.00	300	7.11	0.090	1.4	5.52	18.69	-2	0.0	clear
0955	44.00	300	7.03	0.088	1.6	5.78	18.52	0	0.0	clear
1000	44.00	300	6.95	0.083	1.7	5.58	18.47	2	0.0	clear
1005	44.00	300	6.89	0.080	1.2	5.31	18.41	6	0.0	clear
1010	44.00	300	6.90	0.076	1.0	5.42	18.40	9	0.0	clear
1015	44.00	300	6.89	0.075	1.0	5.50	18.42	11	0.0	clear
1020	44.00	300	6.89	0.074	1.1	5.57	18.40	13	0.0	clear - collect sample

SIGNATURE(S): LTAF

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G02230

Sample ID No.: BPS1-MW302I1-20101130
Sample Location: MW-302I1
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 0845	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Submersible pump	clear	5.90	0.149	17.47	1.2	9.48	0.1	203

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):		(See	low	Flow	purge	sheets)		
Static Water Level (WL): 44.08'								
One Casing Volume(gal/L):								
Start Purge (hrs): 0745								
End Purge (hrs): 0845								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	None	2 x 1 liter Amber bottles	Yes

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (Site 1)
PROJECT NUMBER: 112G02230

WELL ID.: BPS1-MW302I1
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0735	44.08	–	–	–	–	–	–	–	–	Initial
0745	44.10	375	6.52	0.169	3.7	8.84	15.34	167	0.2	clear
0750	44.08	325	6.55	0.169	29.7	9.04	16.25	140	0.1	slight Tint (Tan)
0755	44.08	300	6.57	0.152	30.4	9.08	16.86	151	0.1	slight Tint (Tan)
0800	44.08	300	6.44	0.151	20.1	9.17	17.13	160	0.1	clear
0805	44.08	300	6.31	0.152	19.3	9.35	17.18	167	0.1	clear
0810	44.08	300	6.20	0.151	14.4	9.43	17.22	175	0.1	clear
0815	44.08	300	6.13	0.152	8.7	9.38	17.30	179	0.1	clear
0820	44.08	300	6.07	0.151	5.4	9.32	17.31	185	0.1	clear
0825	44.08	300	5.99	0.151	3.9	9.37	17.33	192	0.1	clear
0830	44.08	300	5.92	0.150	2.6	9.41	17.39	199	0.1	clear
0835	44.08	300	5.91	0.150	2.1	9.44	17.37	201	0.1	clear
0840	44.08	300	5.89	0.149	1.4	9.46	17.42	202	0.1	clear
0845	44.08	300	5.90	0.149	1.2	9.48	17.47	203	0.1	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (site 1)
Project No.: 112G02230

Sample ID No.: BPS1-MW302I1-20101130
Sample Location: MW-302I1
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Date: 11-30-10								
Time: 0845								
Method: submersible pump	clear	5.90	0.149	17.47	1.2	9.48	0.1	203

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 11-30-10								
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):		(see low Flow purge sheets)						
Static Water Level (WL): 44.08'								
One Casing Volume(gal/L):								
Start Purge (hrs): 0745								
End Purge (hrs): 0845								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	None	2 x 1 liter Amber bottles	Yes

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (Site 1)
PROJECT NUMBER: 112G02230

WELL ID.: BPS1-MW302I1
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0735	44.08	–	–	–	–	8.84	15.34	167	0.2	Initial
0745	44.10	375	6.52	0.169	3.7	9.04	16.25	140	0.1	slight Tint (Tan)
0750	44.08	325	6.55	0.169	29.7	9.04	16.25	140	0.1	slight Tint (Tan)
0755	44.08	300	6.57	0.152	30.4	9.08	16.86	151	0.1	clear
0800	44.08	300	6.44	0.151	20.1	9.17	17.13	160	0.1	clear
0805	44.08	300	6.31	0.152	19.3	9.35	17.18	167	0.1	clear
0810	44.08	300	6.20	0.151	14.4	9.43	17.22	175	0.1	clear
0815	44.08	300	6.13	0.152	8.7	9.38	17.30	179	0.1	clear
0820	44.08	300	6.07	0.151	5.4	9.32	17.31	185	0.1	clear
0825	44.08	300	5.99	0.151	3.9	9.37	17.33	192	0.1	clear
0830	44.08	300	5.92	0.150	2.6	9.41	17.39	199	0.1	clear
0835	44.08	300	5.91	0.150	2.1	9.44	17.37	201	0.1	clear
0840	44.08	300	5.89	0.149	1.4	9.46	17.42	202	0.1	clear
0845	44.08	300	5.90	0.149	1.2	9.48	17.47	203	0.1	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-MW302I2-20101129
Sample Location: BPSI-MW302I2
Sampled By: Vince Shickora
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 11-29-10								
Time: 1520								
Method: Submersible pump	Clear	6.30	0.797	15.81	1.6	9.63	0.0	171

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 11-29-10								
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2 inch PVC		(See Low Flow purge sheets)						
Total Well Depth (TD):								
Static Water Level (WL): 44.37'								
One Casing Volume(gal/L):								
Start Purge (hrs): 1400								
End Purge (hrs): 1520								
Total Purge Time (min): 80								
Total Vol. Purged (gal/L): 6.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	
PCBs	None	2 x 1 liter Amber bottles	

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No stains, odors, or elevated PID readings observed

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	
—		

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112602.38
WELL ID.: BPS1-MW302-I2
DATE: 11-29-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1355	44.37	—	—	—	—	—	—	—	—	Initial
1400	44.42	350	7.15	0.892	13.1	9.59	15.58	110	0.0	clear
1405	44.40	300	7.70	0.974	87	9.56	15.95	77	0.0	Tinted Gray-Brown
1410	44.39	300	7.40	1.68	29.3	9.57	16.08	98	0.1	slight Tint-Tan
1415	44.37	300	6.99	1.46	16.0	9.64	16.03	127	0.1	clear
1420	44.37	300	6.82	1.25	7.4	9.73	15.88	139	0.0	clear
1425	44.37	300	6.76	1.12	5.8	9.89	15.83	144	0.0	clear
1430	44.37	300	6.69	1.02	7.2	9.91	15.84	147	0.0	clear
1435	44.37	300	6.62	0.994	6.9	9.95	15.72	155	0.0	clear
1440	44.37	300	6.55	0.907	6.7	9.89	15.64	158	0.0	clear
1445	44.37	300	6.51	0.884	6.3	9.90	15.58	159	0.0	clear
1450	44.37	300	6.46	0.886	4.4	9.84	15.67	161	0.0	clear
1455	44.37	300	6.43	0.884	2.0	9.79	15.72	164	0.0	clear
1500	44.37	300	6.40	0.881	1.9	9.77	15.80	167	0.0	clear
1505	44.37	300	6.35	0.802	1.6	9.66	15.88	171	0.0	clear
1510	44.37	300	6.33	0.799	1.7	9.70	15.84	170	0.0	clear
1515	44.37	300	6.31	0.798	2.0	9.64	15.79	172	0.0	clear
1520	44.37	300	6.30	0.797	1.6	9.63	15.81	171	0.0	clear - collect sample
										Note
										Conductivity readings
										are not accurate,
										Horiba conductivity
										malfunction

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NWIRP Bethpage (Site 1)
Project No.: 112G02230

Sample ID No.: BPS1-MW3020-20101129
Sample Location: MW-3020
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 11-29-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1230	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Submersible pump	clear	7.88	1.19	16.38	2.2	8.82	0.0	84

PURGE DATA:

Date: 11-29-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low-Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2 inch PVC			(see low flow purge sheets)					
Total Well Depth (TD):								
Static Water Level (WL): 44.65								
One Casing Volume(gal/L):								
Start Purge (hrs): 1105								
End Purge (hrs): 1230								
Total Purge Time (min): 85								
Total Vol. Purged (gal/L): 6.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 X 40 ml vials	yes
PCBs	None	2 X 1 liter Amber bottles	yes

OBSERVATIONS / NOTES:

- pump set in screened interval of wells
- No stains, odors, or elevated PID readings observed

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	
—	—	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage (site 1)
PROJECT NUMBER: 112G02230

WELL ID.: BPS1-MW302D
DATE: 11-29-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1050	44.65	-	-	-	-	-	-	-	-	Initial
1105	44.68	350	8.75	3.84	10.5	9.27	15.79	56	0.2	clear
1110	44.69	350	9.07	1.97	8.6	8.72	16.28	18	0.1	clear
1115	44.68	300	8.97	1.67	9.4	8.61	16.37	22	0.1	clear
1120	44.68	300	8.70	1.42	7.7	8.80	16.20	38	0.1	clear
1125	44.68	300	8.53	1.37	4.8	8.86	16.05	49	0.1	clear
1130	44.68	300	8.40	1.39	3.9	8.96	16.10	55	0.1	clear
1135	44.68	300	8.32	1.38	3.3	9.10	16.20	60	0.1	clear
1140	44.68	300	8.25	1.46	2.7	8.99	16.32	63	0.1	clear
1145	44.68	300	8.17	1.39	2.5	9.08	16.27	67	0.1	clear
1150	44.68	300	8.08	0.99	2.3	8.93	16.21	73	0.0	clear
1155	44.68	300	7.98	0.99	2.1	8.86	16.29	78	0.0	clear
1200	44.68	300	7.99	1.05	2.2	8.85	16.32	77	0.0	clear
1205	44.68	300	7.98	1.04	2.0	8.90	16.40	76	0.0	clear
1210	44.68	300	7.97	1.06	2.1	8.91	16.34	78	0.0	clear
1215	44.68	300	7.92	1.13	2.0	8.90	16.41	82	0.0	clear
1220	44.68	300	7.87	1.08	2.0	8.94	16.39	85	0.0	clear
1225	44.68	300	7.90	1.12	2.1	8.88	16.38	83	0.0	clear
1230	44.68	300	7.88	1.19	2.2	8.82	16.38	84	0.0	clear - collect sample
										Note - conductivity
										readings are not
										accurate - Heriba
										conductivity malfunction

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW303S-20101130
Sample Location: BPSI-TT-MW303S
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 11-30-10								
Time: 1133								
Method: Grundfos Low Flow	clear	6.51	0.113	19.16	3.44	9.84	0.0	123

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 11-30-10								
Method: Grundfos Low Flow	see low	flow	purge	sheet				
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 43.71								
One Casing Volume(gal/L):								
Start Purge (hrs): 1020								
End Purge (hrs): 1133								
Total Purge Time (min): 73								
Total Vol. Purged (gal/L): 8 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	–	2 1L amber glass bottle	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPSI-Dup01-20101130

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230

WELL ID.: BPS1-TT-MW303$
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0920	43.71									2 gal
1030	43.77	500	8.07	0.122	76.9	9.62	16.74	112	0.0	slight tan tint 3 gal
1038	43.77	350	7.18	0.119	51.6	9.45	18.24	77	0.0	" "
1043	43.77	350	6.92	0.119	49.3	9.70	18.51	94	0.0	clear 4 gal
1048	43.77	350	6.83	0.118	39.4	9.68	18.71	101	0.0	clear
1053	43.77	350	6.73	0.118	13.5	9.74	18.72	109	0.0	" "
1058	43.77	350	6.68	0.117	20.9	9.68	18.80	112	0.0	" " 5 gal
1105	43.77	350	6.61	0.116	7.57	9.43	18.79	117	0.0	" "
1110	43.77	350	6.56	0.114	7.88	9.60	18.84	120	0.0	" " 6 gal
1115	43.77	350	6.53	0.113	8.37	9.60	18.91	120	0.0	" "
1120	43.77	350	6.51	0.113	7.70	9.57	19.06	120	0.0	" " 7 gal
1125	43.77	350	6.49	0.113	4.96	9.53	19.15	121	0.0	" "
1130	43.77	350	6.51	0.113	3.44	9.84	19.16	123	0.0	" " 8 gal
1133	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW303I-20101130
Sample Location: BPSI-TT-MW303I
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0943								
Method: Grundfos low flow	light brn	9.17	0.207	17.58	4.398	2.84	0.0	42

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos low Flow	see low	Flow	purge	sheet	for details			
Monitor Reading (ppm): –								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.19								
One Casing Volume(gal/L):								
Start Purge (hrs): 0740								
End Purge (hrs): 0943								
Total Purge Time (min): 123								
Total Vol. Purged (gal/L): 20 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	–	2 1L Amber glass bottle	yes

OBSERVATIONS / NOTES:

Very turbid
Flakes (grey) seen on top of pump
- looks like grout

Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	~~BPSI-Dup01-20101130~~ JB 11-30-10

Signature(s): Jan Baikoff

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW303I1
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0740	44.19	Start	purge							
0745	44.29	350	6.22	0.226	1058	4.45	15.51	181	0.0	light brown
0750	44.31	350	8.97	0.219	1156	3.16	16.52	120	0.0	" "
0756	44.31	350	9.23	0.217	1231	2.92	16.69	111	0.0	" "
0801	44.31	350	9.27	0.217	1475	2.84	16.87	102	0.0	" " 2 gal
0808	44.31	350	9.25	0.218	1925	2.96	17.17	96	0.0	" "
0813	44.31	350	9.27	0.218	1977	2.82	17.27	89	0.0	" " 3 gal
0818	44.31	350	9.26	0.218	2042	2.78	17.14	84	0.0	" " 4 gal
0823	44.31	350	9.28	0.218	2103	2.79	17.20	77	0.0	" "
0828	44.31	350	9.27	0.217	2240	2.75	17.25	73	0.0	" " 5 gal
	Call Project Manager about TURB									10 gal pulled w/o horiba reading
	- Drop pump to bottom clear			out sediment, pull up 2', restart purge						15 gal
0854	44.31	350	9.26	0.209	9338	4.26	16.81	82	0.0	light brown
0859	44.31	350	9.21	0.209	7733	3.05	16.77	76	0.0	" " 16 gal
0905	44.31	350	9.17	0.208	7608	2.84	16.91	69	0.0	" "
0910	44.31	350	9.17	0.207	6941	2.71	17.06	63	0.0	" " 17 gal
0915	44.31	350	9.17	0.207	5801	2.72	17.14	58	0.0	" "
0920	44.31	350	9.19	0.207	5648	2.66	17.25	51	0.0	" "
0925	44.31	350	9.17	0.208	4708	2.59	17.49	51	0.0	" " 18 gal
0930	44.31	350	9.19	0.208	4773	2.98	17.54	47	0.0	" "
0935	44.31	350	9.18	0.208	4612	2.84	17.56	44	0.0	" " 19 gal
0940	44.31	350	9.17	0.207	4393	2.84	17.58	42	0.0	" "
0943	Collect sample									" " 20 gal

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPS1-TT-MW303J2-20101129
Sample Location: BPS1-TT-MW303J2
Sampled By: J. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 11-29-10								
Time: 1523								
Method: Low Flow	clear	6.14	0.105	16.47	5.55	5.69	0.0	141

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 11-29-10								
Method: Low Flow	See	low	Flow	purge	sheet			
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.53								
One Casing Volume(gal/L):								
Start Purge (hrs): 1400								
End Purge (hrs): 1523								
Total Purge Time (min): 83								
Total Vol. Purged (gal/L): 8 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	—	2 1 L amber glass bottle	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230

WELL ID.: BPSI-TT-MW303I2
DATE: 11-29-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1400	44.53									
1405	44.55	300	7.47	0.118	2.86	9.34	15.70	96	0.0	clear
1410	44.57	300	7.22	0.114	280	7.55	15.80	91	0.0	light brown
1415	44.56	300	7.03	0.113	139	6.93	15.88	87	0.0	" " 1 gal
1420	44.56	300	6.91	0.113	66.7	6.68	15.97	90	0.0	slight tan tint
1425	44.56	300	6.79	0.112	87.1	6.63	15.80	98	0.0	" " 2 gal
1430	44.56	300	6.72	0.111	39.2	6.49	15.94	98	0.0	" "
1435	44.56	300	6.61	0.112	44.9	6.38	16.06	104	0.0	" " 3 gal
1440	44.56	300	6.55	0.109	29.7	6.20	16.11	104	0.0	clearish
1445	44.56	350	6.48	0.109	21.9	6.11	16.33	110	0.0	" " 4 gal
1450	44.56	350	6.41	0.109	19.0	6.06	16.37	117	0.0	clear
1455	44.56	350	6.35	0.108	10.99	5.97	16.20	121	0.0	" " 5 gal
1500	44.56	350	6.24	0.107	12.4	5.89	16.25	125	0.0	clear
1505	44.56	350	6.22	0.107	8.53	5.86	16.50	131	0.0	clear 6 gal
1510	44.56	350	6.20	0.106	7.12	5.76	16.58	133	0.0	clear
1515	44.56	350	6.16	0.106	5.77	5.71	16.50	137	0.0	clear 7 gal
1520	44.56	350	6.14	0.105	5.55	5.69	16.47	141	0.0	clear
1523	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPS1-TT-MW303D-20101129
Sample Location: BPS1-TT-MW303D
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 11-29-10	(Visual)	(S.U.)	(mS/cm)	16.0°(°C) JBB	(NTU)	(mg/l)	(%)	ORP
Time: 1320								
Method: Grundfos Low Flow	clear	7.57	0.149	~~13.43~~	18.93	5.93	0.0	118

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 11-29-10								
Method: Grundfos Low Flow	see	low	Flow	purge	sheet			
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.71								
One Casing Volume(gal/L):								
Start Purge (hrs): 1110								
End Purge (hrs): 1320								
Total Purge Time (min): 130								
Total Vol. Purged (gal/L): 14 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	—	2 1L amber glass bottles	yes

OBSERVATIONS / NOTES:

pH could not get to stabilize

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230

WELL ID.: BPSI-TT-MW303D
DATE: 11-29-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1110	44.71									
1115	44.78	400	6.80	0.169	163	7.92	15.84	220	0.0	slight tan tint
1125	44.75	400	8.37	0.167	154	5.84	15.95	175	0.0	" " 3.5 gal
1130	44.74	350	8.50	0.167	107.7	5.72	16.04	164	0.0	" "
1135	44.74	350	8.59	0.166	93.4	5.68	16.05	159	0.0	" "
1141	44.74	350	8.65	0.163	79.7	5.69	1605	153	0.0	" " 5 gal
1146	44.73	350	8.63	0.161	56.1	5.66	16.01	152	0.0	" "
1151	44.73	350	8.60	0.160	48.3	5.68	16.05	151	0.0	" " 6 gal
1156	44.73	350	8.56	0.159	43.6	5.67	16.03	151	0.0	" "
1201	44.73	350	8.51	0.158	41.7	5.65	16.08	152	0.0	" " 7 gal
1206	44.73	300	8.44	0.157	34.8	5.63	15.98	152	0.0	clearish
1211	44.73	300	8.36	0.156	32.8	5.62	15.96	153	0.0	" "
1216	44.73	300	8.29	0.156	29.7	5.59	15.97	153	0.0	clear 8 gal
1221	44.73	300	8.24	0.155	31.3	5.59	15.99	153	0.0	clear
1226	44.73	300	8.17	0.155	29.4	5.57	16.09	153	0.0	clear
1231	44.73	300	8.09	0.154	25.6	5.60	16.02	153	0.0	clear 9 gal
1236	44.73	300	8.03	0.153	27.2	5.66	15.93	152	0.0	clear
1242	44.73	300	7.93	0.153	25.3	5.70	16.02	152	0.0	clear 10 gal
1247	44.73	300	7.88	0.152	23.8	5.67	16.15	151	0.0	" "
1252	44.73	300	7.83	0.152	22.4	5.76	16.13	143	0.0	" " 11 gal
1257	44.73	300	7.78	0.151	21.0	5.82	15.98	135	0.0	" "
1302	44.73	300	7.72	0.151	19.4	5.83	16.03	129	0.0	" " 12 gal
1307	44.73	300	7.67	0.150	19.8	5.83	16.11	126	0.0	" "
1312	44.73	300	7.61	0.150	18.4	5.91	16.16	121	0.0	" " 13 gal
1317	44.73	300	7.57	0.149	18.3	5.93	16.09	118	0.0	
1320	collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BP51-TT-MW304-20101201
Sample Location: BP51-TT-MW304
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 12-1-10	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1000 1135	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Grundfos Low Flow	clear	5.66	0.038	19.53	0.0	9.26	0.0	193

PURGE DATA:

Date: 12-1-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Low Flow	see low flow purge sheet for details							
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 47.61								
One Casing Volume(gal/L):								
Start Purge (hrs): 1000								
End Purge (hrs): 1135								
Total Purge Time (min): 95								
Total Vol. Purged (gal/L): 7 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	—	2 1L amber glass bottle	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW304$
DATE: 12-1-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1000	47.61									
1005	47.63	350	6.61	0.038	18.4	10.18	15.15	169	0.0	clear
1010	47.63	350	6.32	0.037	6.8	10.08	15.44	170	0.0	clear
1018	47.63	350	6.05	0.047	23.9	9.63	17.88	172	0.0	" " " 1 gal
1026	47.63	350	5.90	0.046	0.0	9.28	19.18	171	0.0	Temp. jumped something wrong
Shut down pump, pump		pump continues	to slow	w/o dra	wdown	, refit	pump con	nections		
1041	47.63	350	6.04	0.047	19.2	9.35	17.70	168	0.0	
1046	47.63	350	5.89	0.046	5.93	9.26	17.78	172	0.0	clear 2 gal
1051	47.63	350	5.87	0.045	0.0	9.18	18.71	171	0.0	" "
1057	47.66	500	5.79	0.043	0.0	8.90	19.98	176	0.0	" " 3 gal
1102	47.68	500	5.79	0.043	0.0	8.88	20.40	178	0.0	" " 4 gal
1107	47.63	350	5.79	0.042	0.0	8.89	19.72	181	0.0	" "
1112	47.63	350	5.77	0.041	0.0	8.88	19.59	183	0.0	" " 5 gal
1117	47.63	350	5.77	0.040	0.0	8.88	19.59	185	0.0	" "
1122	47.63	350	5.76	0.040	0.0	8.91	19.54	186	0.0	" " 6 gal
1127	47.63	350	5.66	0.040	0.0	8.67	19.58	191	0.0	" "
1132	47.63	350	5.66	0.038	0.0	9.24	19.53	193	0.0	" " 7 gal
1135	Collect sample									

Speed up pump to clean out

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW3049I-20101201
Sample Location: BPSI-TT-MW3049I
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 12-1-10 / Time: 0917	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Method: Grundfos Low Flow	clear	6.50	0.251	15.11	23.6	6.56	0.0	ORP 118

PURGE DATA:

Date: 12-1-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Low Flow	see low flow purge sheet for details							
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 47.87								
One Casing Volume(gal/L):								
Start Purge (hrs): 0815								
End Purge (hrs): 0917								
Total Purge Time (min): 62 min								
Total Vol. Purged (gal/L): 5.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	-	2 1L amber glass bottle	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW304I1
DATE: 12-1-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0815	47.87									
0825	47.89	350	6.26	0.268	80.1	7.80	14.54	216	0.0	light brown tint
0830	47.89	350	6.34	0.265	170	6.91	14.84	203	0.0	" " 1 gal
0835	47.89	350	6.38	0.264	191	6.75	14.92	187	0.0	" "
0840	47.89	350	6.42	0.263	89.3	6.64	15.03	161	0.0	" " 2 gal
0845	47.89	350	6.43	0.261	66.8	6.61	15.11	142	0.0	clearish
0850	47.89	350	6.45	0.259	47.7	6.50	15.16	132	0.0	" "
0855	47.87	350	6.46	0.257	38.6	6.48	15.20	127	0.0	" " 3 gal
0900	47.87	350	6.48	0.255	35.2	6.44	15.27	125	0.0	" "
0905	47.87	350	6.48	0.254	30.7	6.35	15.27	122	0.0	" " 4 gal
0910	47.87	350	6.49	0.252	28.9	6.32	15.21	120	0.0	" "
0915	47.87	350	6.50	0.251	23.6	6.56	15.11	118	0.0	
0917	Collect Sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW30412-20101130
Sample Location: BPSI-TT-MW30412
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10 / Time: 1517 / Method: Grundfos Low Flow	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	clear	5.68	0.156	14.02	10.3	7.35	0.0	138

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Low	see low	flow	purge	sheet				
Monitor Reading (ppm): –								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 48.13								
One Casing Volume(gal/L):								
Start Purge (hrs): 1418								
End Purge (hrs): 1517								
Total Purge Time (min): 59								
Total Vol. Purged (gal/L): 6 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	–	2 1L amber glass vial	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	–

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW304I2
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1418	48.13									
1425	48.15	300	6.12	0.161		7.51	14.09	100	0.0	
1434	48.15	300	5.79	0.160		7.29	13.64	105	0.0	slight turbidity 2 gal
1442	48.15	350	5.75	0.159	105.9	7.11	14.03	110	0.0	" "
1449	48.15	350	5.70	0.158	66.9	7.15	14.31	120	0.0	" " 3 gal
1454	48.15	350	5.70	0.158	51.9	7.17	14.31	125	0.0	" "
1459	48.15	350	5.70	0.158	32.9	7.21	14.22	130	0.0	" " 4 gal
1504	48.15	350	5.69	0.156	29.8	7.98	14.41	138	0.0	" " 5 gal
1509	48.15	350	5.69	0.156	14.8	7.40	14.26	139	0.0	" "
1514	48.15	350	5.68	0.156	10.3	7.35	14.02	138	0.0	" " 6 gal
1517	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPS1-TT-MW304D20101130
Sample Location: BPS1-TT-MW304D
Sampled By: JB
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-30-10 / Time: 1347	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Method: Grundfos Low Flow	clear	6.61	0.118	14.23	2.93	3.05	0.0	83

PURGE DATA:

Date: 11-30-10	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Grundfos Low Flow	See low flow purge sheet							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 48.17								
One Casing Volume(gal/L):								
Start Purge (hrs): 1230								
End Purge (hrs): 1347								
Total Purge Time (min): 77								
Total Vol. Purged (gal/L): 7 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40 mL glass vials	yes
PCB	—	2 1 L amber glass bottles	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW304D
DATE: 11-30-10

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1230	48.17									
1235	48.36	300	7.68	0.131	200	8.97	13.78	-42	0.0	light tan first
1240	48.36	300	7.54	0.122	236	8.59	14.07	-6	0.0	" " 1 gal
1245	48.36	300	7.34	0.117	263	8.45	14.09	15	0.0	" "
1250	48.36	300	7.25	0.115	233	8.33	14.17	16	0.0	" "
1255	48.36	300	7.15	0.115	220	8.31	14.23	22	0.0	" " 2 gal
1300	48.36	300	7.04	0.115	68.7	8.18	14.31	33	0.0	" "
1305	48.36	300	6.96	0.115	33.7	8.18	14.28	46	0.0	clearish 3 gal
1310	48.36	300	6.89	0.115	22.3	8.32	14.14	55	0.0	" "
1315	48.36	300	6.84	0.116	31.8	8.20	14.08	63	0.0	clear 4 gal
1320	48.36	300	6.78	0.115	12.9	8.16	14.07	69	0.0	" "
1325	48.36	300	6.73	0.116	8.21	8.18	14.09	74	0.0	" " 5 gal
1330	48.36	300	6.69	0.116	9.74	8.15	13.96	77	0.0	" "
1335	48.36	300	6.66	0.115	4.13	8.18	14.15	80	0.0	" " 6 gal
1340	48.36	300	6.63	0.117	4.58	8.09	14.14	81	0.0	
1345	48.36	300	6.61	0.118	2.93	8.05	14.23	83	0.0	
1347	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

Sample ID No.: BPS1-FW-MW01-20110302
Sample Location: FW-MW02
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-2-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1105	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Rediflow pump	Clear	6.95	0.578	16.43	8.99	8.57	0.0	204

PURGE DATA:

Date: 3-2-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):			(See Low Flow logs for details)					
Static Water Level (WL): 54.47								
One Casing Volume(gal/L):								
Start Purge (hrs): 1005								
End Purge (hrs): 1105								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	4°C	2 x 1 liter Amber	Yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPS1-FW-MW01
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0958	54.47	—	—	—	—	—	—	—	—	Initial
1005	54.48	350	6.65	0.635	139	10.29	14.03	295	0.0	Tinted (Tan)
1010	54.48	350	6.79	0.643	113	9.70	14.84	285	0.0	Tinted (Tan)
1015	54.48	350	6.86	0.631	108	8.93	15.54	276	0.0	Tinted (Tan)
1020	54.48	375	6.90	0.625	110	8.63	16.10	270	0.0	Tinted (Tan)
1025	54.48	375	6.91	0.623	91.3	8.66	16.17	265	0.0	Tinted (Tan)
1030	54.48	375	6.93	0.620	55.2	8.62	16.21	254	0.0	Tinted (Tan)
1035	54.48	375	6.94	0.613	43.7	8.61	16.30	248	0.0	slight Tint (Tan)
1040	54.48	375	6.95	0.599	34.2	8.57	16.34	239	0.0	very slight Tint (Tan)
1045	54.48	375	6.95	0.593	22.0	8.59	16.30	227	0.0	clear
1050	54.48	375	6.95	0.587	17.9	8.54	16.35	218	0.0	clear
1055	54.48	375	6.94	0.581	13.8	8.56	16.39	209	0.0	clear
1100	54.48	375	6.95	0.580	9.78	8.53	16.41	206	0.0	clear
1105	54.48	375	6.95	0.578	8.99	8.57	16.43	204	0.0	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-FW-MW02-20110302
Sample Location: FW-MW02
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-2-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 0935	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Redi Flow pump	Clear	6.59	0.349	16.08	6.81	9.42	0.0	325

PURGE DATA:

Date: 3-2-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):								
Static Water Level (WL): 45.08'			(see	Low	Flow	logs)		
One Casing Volume(gal/L):								
Start Purge (hrs): 0835								
End Purge (hrs): 0935								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 X 40 Ml vials	yes
PCBs	4°C	2 X 1 Liter Amber	yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112602230
WELL ID.: BPS1-FW-MW02
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0825	45.08	—	—	—	—	—	—	—	—	Initial
0835	45.13	400	~~0.389~~	0.389	70.50	10.08	13.35	340	0.0	Tinted (Brown)
0840	45.11	350	6.30	0.392	61.21	10.30	18.12	338	0.0	Slight Tint (Tan)
0845	45.10	350	6.39	0.369	54.83	9.26	16.95	333	0.0	Slight Tint (Tan)
0850	45.08	350	6.44	0.366	58.74	9.32	16.12	332	0.0	Slight Tint (Tan)
0855	45.08	350	6.53	0.357	49.65	9.47	16.03	330	0.0	Slight Tint (Tan)
0900	45.08	350	6.57	0.352	28.32	9.45	15.97	330	0.0	clear
0905	45.08	350	6.56	0.351	16.21	9.42	15.95	329	0.0	clear
0910	45.08	350	6.57	0.349	10.40	9.44	15.96	328	0.0	clear
0915	45.08	350	6.57	0.350	9.93	9.45	16.01	327	0.0	clear
0920	45.08	350	6.58	0.349	6.20	9.41	16.05	326	0.0	clear
0925	45.08	350	6.58	0.350	8.18	9.43	16.09	326	0.0	clear
0930	45.08	350	6.59	0.349	7.94	9.40	16.06	325	0.0	clear
0935	45.08	350	6.59	0.349	6.81	9.42	16.08	325	0.0	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-FW-MW03-20110303
Sample Location: BPSI-FW-MW03
Sampled By: JB VS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-3-11 / Time: 1102 / Method: Low Flow - Grundfos	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	clear	5.98	0.206	16.63	28.7	9.30	0.0	307

PURGE DATA:

Date: 3-3-11 / Method: Low Flow	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
	see low	flow	purge	sheet	for details			
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 53.64								
One Casing Volume(gal/L):								
Start Purge (hrs): 1010								
End Purge (hrs): 1102								
Total Purge Time (min): 52								
Total Vol. Purged (gal/L): 7 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	—	2 1L amber glass	yes

OBSERVATIONS / NOTES:

Pull pump 2' off bottom

Circle if Applicable:

MS/MSD | Duplicate ID No.: —

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-FW-MW03
DATE: 3-3-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1008	53.64									
1010	53.64	350	5.86	0.214	1964	10.83	11.53	332	0.0	tan color
1015	53.59	350	5.83	0.212	2245	10.38	12.69	323	0.0	" "
1020	53.59	350	5.89	0.216	1980	9.36	15.31	316	0.0	" "
1025	53.59	450	5.92	0.216	1466	8.76	17.53	311	0.0	" "
1030	53.59	450	5.95	0.216	920	9.26	16.94	310	0.0	cloudy (Tan)
1035	53.59	450	5.97	0.214	634	9.35	16.07	310	0.0	" "
1040	53.59	450	5.97	0.212	1022	9.23	16.81	309	0.0	tan tint
1045	53.59	450	5.99	0.211	744	9.26	16.73	308	0.0	slight tan tint
1050	53.59	450	5.96	0.209	483	9.20	16.77	309	0.0	clearish
1055	53.59	450	5.95	0.206	31.8	9.33	16.58	309	0.0	
1100	53.59	450	5.98	0.206	28.7	9.30	16.63	307	0.0	
1102	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112602230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-HN-MW29I-20110302
Sample Location: HN-MW29I
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-2-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1315	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: RediFlow pump	clear	11.09	0.336	16.12	0.98	8.83	0.0	63

PURGE DATA:

Date: 3-2-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 4 inch PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.23		(see Low Flow logs)						
One Casing Volume(gal/L):								
Start Purge (hrs): 1205								
End Purge (hrs): 1315								
Total Purge Time (min): 70								
Total Vol. Purged (gal/L): 7.25								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	4°C	2 x 1 Liter Amber	Yes
Hex. Chrom.	4°C	1 x 250 ml poly	Yes
TAL Metals	HNO_3	1 x 500 ml poly	Yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	
—	—	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-HN-MW29I
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1145	44.23	–	–	–	–	–	–	–	–	Initial
1205	44.23	450	9.49	0.477	14.4	10.62	15.10	85	0.0	clear
1210	44.23	450	10.31	0.480	11.1	9.87	15.21	70	0.0	clear
1215	44.23	450	10.89	0.474	7.07	9.37	15.77	65	0.0	clear
1220	44.23	450	11.05	0.470	5.18	9.20	15.83	60	0.0	clear
1225	44.23	450	11.10	0.458	5.02	9.22	15.82	58	0.0	clear
1230	44.23	450	11.14	0.447	4.32	9.14	15.90	57	0.0	clear
1235	44.23	450	11.16	0.432	3.99	9.02	16.01	57	0.0	clear
1240	44.23	450	11.15	0.410	3.04	8.96	16.03	58	0.0	clear
1245	44.23	450	11.14	0.393	2.75	8.95	16.05	58	0.0	clear
1250	44.23	450	11.13	0.375	2.41	8.90	16.09	59	0.0	clear
1255	44.23	450	11.12	0.356	1.72	8.92	16.06	59	0.0	clear
1300	44.23	450	11.11	0.348	1.53	8.87	16.10	60	0.0	clear
1305	44.23	450	11.10	0.343	1.16	8.84	16.13	61	0.0	clear
1310	44.23	450	11.10	0.340	1.03	8.81	16.16	62	0.0	clear
1315	44.23	450	11.09	0.336	0.98	8.83	16.12	63	0.0	clear- collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPS1-TT-MW301$-20110302
Sample Location: BPS1-TT-MW301$
Sampled By: J. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-2-11	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Time: 0922								
Method: Low Flow - Grundfos	clear	5.87	0.067	13.96	2.51	9.35*	0.0	101

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 3-2-11								
Method: Low Flow	See low flow purge sheet for details							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 55.93								
One Casing Volume(gal/L):								
Start Purge (hrs): 0835								
End Purge (hrs): 0922								
Total Purge Time (min): 47								
Total Vol. Purged (gal/L): 5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	~	2 1L amber glass	yes

OBSERVATIONS / NOTES:

Pull pump 2' off bottom

*DO sensor error

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 1126D02230
WELL ID.: BPSI-TT-MW301S
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0833	55.93									
0835	55.98	400	5.25	0.084	19.2	7.25	9.86	228	0.0	clear
0840	55.98	400	5.53	0.072	10.31	8.10*	11.96	190	0.0	" " *DO Error ↓
0845	55.98	400	5.69	0.070	4.64	8.49*	13.44	163	0.0	" " ↓ DO probe error
0850	55.98	350	5.79	0.069	4.11	8.38*	13.32	140	0.0	" "
0855	55.98	350	5.83	0.069	3.00	9.24*	13.62	127	0.0	" "
0901	55.98	350	5.86	0.068	1.96	9.39*	14.06	114	0.0	" "
0905	55.98	350	5.87	0.067	2.51	9.45*	14.09	110	0.0	" "
0910	55.98	350	5.88	0.067	2.67	9.67*	13.99	106	0.0	" "
0915	55.98	350	5.89	0.067	2.43	9.76*	13.87	104	0.0	" "
0920	55.98	350	5.87	0.067	2.51	9.85*	13.96	101	0.0	" " 5 gal
0922	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW301I-201103-02
Sample Location: BPSI-TT-MW301I
Sampled By: J. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-2-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1246	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow - Grundfos	~~brown~~ clear	5.81	0.045	10.66	4.74	13.02	0.0	105

PURGE DATA:

Date: 3-2-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	see low flow purge sheet for details							
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 55.90								
One Casing Volume(gal/L):								
Start Purge (hrs): 1154								
End Purge (hrs): 1246								
Total Purge Time (min): 52								
Total Vol. Purged (gal/L): 4.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	—	2 1L Amber glass	yes
TAL Metals	HNO_3	1 500mL poly bottle	yes
Hex Chrom	—	1 250mL poly bottle	yes

OBSERVATIONS / NOTES:

Pump pulled 3' off bottom

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW301F
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1150	55.90									
1154	55.91	300	6.03	0.063	2.65	8.30	12.58	89	0.0	clear
1159	55.91	300	5.99	0.055	10.94	10.87	10.43	90	0.0	" "
1204	55.91	300	5.91	0.051	16.9	12.22	10.24	93	0.0	" "
1209	55.90	300	5.90	0.049	17.0	12.51	10.29	95	0.0	" "
1214	55.90	300	5.87	0.047	10.19	12.81	10.41	97	0.0	" "
1219	55.90	300	5.85	0.047	9.45	12.85	10.46	100	0.0	" "
1224	55.90	300	5.83	0.046	7.67	12.91	10.54	101	0.0	" "
1229	55.90	300	5.82	0.045	7.05	12.92	10.69	102	0.0	" "
1234	55.90	300	5.82	0.045	5.02	12.89	10.75	104	0.0	" "
1239	55.90	300	5.81	0.045	4.37	12.95	10.69	105	0.0	" "
1244	55.90	300	5.81	0.045	4.74	13.02	10.66	105	0.0	" " 4.5 gal
1246	Collect	sample								

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW301D-20110302
Sample Location: BPSI-TT-MW301D
Sampled By: S. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-2-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1056	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow - Grundfos	clear	5.52	0.410	10.31	0.52	9.00	0.0	105

PURGE DATA:

Date: 3-2-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	See low flow purge sheet for details							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 56.72								
One Casing Volume(gal/L):								
Start Purge (hrs): 1004								
End Purge (hrs): 1056								
Total Purge Time (min): 52								
Total Vol. Purged (gal/L): 5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vial	yes
PCB	—	2 1L Amber glass	yes

OBSERVATIONS / NOTES:

Pump pulled 4' off bottom

Circle if Applicable:

MS/MSD: —

Duplicate ID No.: BPSI-Dup01-20110302 (1030)

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BP51-TT-MW301D
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1000	56.72									
1004	56.76	300	5.70	0.296	23.9	7.30	16.93	104	0.0	clear
1009	56.76	300	5.70	0.408	11.5	7.35	9.98	98	0.0	" "
1014	56.76	300	5.65	0.400	9.09	8.16	9.79	101	0.0	" "
1019	56.76	300	5.63	0.399	5.59	8.42	9.75	102	0.0	" "
1024	56.76	300	5.60	0.402	3.74	8.66	9.95	103	0.0	" "
1029	56.76	300	5.57	0.404	2.31	8.79	10.02	104	0.0	" "
1034	56.76	300	5.56	0.406	2.14	8.93	10.06	105	0.0	" "
1039	56.76	300	5.55	0.411	0.96	8.89	10.14	105	0.0	" "
1044	56.76	300	5.54	0.413	0.93	8.84	10.28	105	0.0	" "
1049	56.76	300	5.54	0.408	0.40	8.86	10.16	105	0.0	" "
1054	56.76	300	5.52	0.410	0.52	9.00	10.31	105	0.0	" "
1056	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02238

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW302S-20110301
Sample Location: MW302S
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1400	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: RediFlow pump	Clear	6.28	0.051	16.22	1.03	9.02	0.2	252

PURGE DATA:

Date: 3-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):			(See Low Flow logs for details)					
Static Water Level (WL): 44.60								
One Casing Volume(gal/L):								
Start Purge (hrs): 1300								
End Purge (hrs): 1400								
Total Vol. Purged (gal/L): 4.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 X 40 ml vials	Yes
PCBs	4°C	2 X 1 Liter Amber	Yes
TAL metals	HNO_3	1 X 500 ml Poly	Yes
Hexa. Chrom.	4°C	1 X 250 ml Poly	Yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains or elevated PID readings observed.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	
—	—	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230

WELL ID.: BPSI-MW302S
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1250	44.60	–	–	–	–	–	–	–	–	Initial
1300	45.22	400	6.35	0.087	53.6	11.70	13.98	287	0.0	Tinted (Tan)
1305	45.46	350	6.38	0.082	50.1	10.46	15.62	279	0.0	Tinted (Tan)
1310	45.49	280	6.38	0.067	48.4	9.99	16.04	263	0.0	slight Tint (Tan)
1315	45.50	260	6.41	0.063	40.2	9.91	16.09	254	0.0	slight Tint (Tan)
1320	45.51	260	6.42	0.059	36.3	9.88	16.03	253	0.0	slight Tint (Tan)
1325	45.51	200	6.44	0.057	27.8	9.79	16.07	250	0.0	clear
1330	45.52	200	6.46	0.054	22.7	9.78	16.05	245	0.0	clear
1335	45.50	200	6.39	0.058	20.4	8.86	16.13	248	0.0	clear
1340	45.48	200	6.37	0.056	14.08	8.93	16.15	250	0.0	clear
1345	45.44	200	6.33	0.053	11.14	8.97	16.14	251	0.0	clear
1350	45.38	200	6.31	0.051	3.86	8.99	16.17	252	0.0	clear
1355	45.34	200	6.29	0.051	1.27	9.00	16.20	251	0.0	clear
1400	45.30	200	6.28	0.051	1.03	9.02	16.22	252	0.0	clear - collect sample

SIGNATURE(S): _____

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112602230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW302I-20110301
Sample Location: MW-302I
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1210	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: RediFlow pump	clear	5.55	0.141	16.75	1.76	9.94	0.0	239

PURGE DATA:

Date: 3-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2 inch PVC								
Total Well Depth (TD):			(See Low Flow logsheets)					
Static Water Level (WL): 44.62								
One Casing Volume(gal/L):								
Start Purge (hrs): 1110								
End Purge (hrs): 1210								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	4°C	2 x 1 Liter Ambers	Yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, elevated PID readings observed

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	
—	—	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-MW302I1
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1100	44.62	-	-	-	-	-	-	-	-	Initial
1110	44.63	380	6.60	0.144	14.63	10.97	14.18	297	0.0	clear
1115	44.63	380	6.41	0.142	12.98	10.69	14.51	302	0.0	clear
1120	44.63	380	6.15	0.141	19.00	10.38	15.46	297	0.0	clear
1125	44.63	380	6.00	0.142	14.74	10.18	16.07	295	0.0	clear
1130	44.63	380	5.91	0.141	9.66	10.14	16.23	293	0.0	clear
1135	44.63	380	5.80	0.142	7.40	10.08	16.39	291	0.0	clear
1140	44.63	380	5.70	0.141	5.19	10.11	16.37	292	0.0	clear
1145	44.63	380	5.64	0.141	3.46	10.05	16.44	289	0.0	clear
1150	44.63	380	5.61	0.141	2.03	10.02	16.55	290	0.0	clear
1155	44.63	380	5.59	0.141	1.86	9.99	16.60	289	0.0	clear
1200	44.63	380	5.57	0.141	1.74	9.97	16.67	290	0.0	clear
1205	44.63	380	5.56	0.141	1.69	9.95	16.72	289	0.0	clear
1210	44.63	380	5.55	0.141	1.76	9.94	16.75	289	0.0	clear - collect sample.

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02236

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW302I2-20110301
Sample Location: MW-302I2
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1040	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: RediFlow pump	Clear	6.28	0.154	15.14	1.35	10.20	0.0	285

PURGE DATA:

Date: 3-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2inch PVC								
Total Well Depth (TD):		(See Low Flow purge sheets)						
Static Water Level (WL): 44.85'								
One Casing Volume(gal/L):								
Start Purge (hrs): 0940								
End Purge (hrs): 1040								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml VIALS	yes
PCBs	4°C	2 x 1 Liter Ambers	yes

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No odors, stains, or elevated PID readings observed.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230

WELL ID.: BPS1-MW302I2
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0930	44.85	—	—	—	—	—	—	—	—	Initial
0940	44.87	375	8.59	0.164	13.25	10.57	13.09	273	0.0	clear
0945	44.86	375	8.33	0.153	20.14	10.45	14.04	267	0.0	clear
0950	44.86	375	8.09	0.151	30.32	10.42	14.20	262	0.0	Very slight Tint (Tan)
0955	44.85	375	7.88	0.152	22.30	10.46	14.11	263	0.0	clear
1000	44.85	375	7.60	0.152	13.71	10.32	14.52	267	0.0	clear
1005	44.85	375	7.29	0.153	8.47	10.24	14.80	271	0.0	clear
1010	44.85	375	7.03	0.153	6.20	10.28	14.69	275	0.0	clear
1015	44.85	375	6.82	0.153	7.04	10.25	14.85	278	0.0	clear
1020	44.85	375	6.64	0.153	5.18	10.22	15.01	281	0.0	clear
1025	44.85	375	6.50	0.154	4.38	10.16	15.17	283	0.0	clear
1030	44.85	375	6.39	0.154	3.02	10.21	15.12	284	0.0	clear
1035	44.85	375	6.32	0.154	1.97	10.24	15.16	284	0.0	clear
1040	44.85	375	6.28	0.154	1.35	10.20	15.14	285	0.0	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW302D
Sample Location: MW-302D
Sampled By:
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11 / Time: 0900 / Method: RediFlow pump	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
	Clear	9.02	0.174	15.34	0.20	9.25	0.0	235

PURGE DATA:

Date: 3-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2inch PVC								
Total Well Depth (TD):		(See Low Flow purge sheets)						
Static Water Level (WL): 45.17								
One Casing Volume(gal/L):								
Start Purge (hrs): 0800								
End Purge (hrs): 0900								
Total Time (min): 60								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 X 40 Ml vials	Yes
PCBs	4°C	2 X 1 Liter Ambers	Yes

OBSERVATIONS / NOTES:

- Pump set in screened interval of well
- No odors, stains, or elevated PID readings observed

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112602230
WELL ID.: BPSI-MW302D
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0745	45.17	—	—	—	—	—	—	—	—	Initial
0800	45.18	380	8.29	0.205	12.07	9.90	14.20	232	0.0	clear
0805	45.18	380	8.64	0.196	6.85	9.70	15.06	219	0.0	clear
0810	45.18	380	8.92	0.194	6.30	9.51	15.22	214	0.0	clear
0815	45.18	380	9.13	0.191	4.01	9.47	15.21	213	0.0	clear
0820	45.18	380	9.26	0.191	2.62	9.44	15.27	214	0.0	clear
0825	45.18	380	9.30	0.191	2.14	9.41	15.25	215	0.0	clear
0830	45.18	380	9.30	0.191	1.82	9.37	15.20	216	0.0	clear
0835	45.18	380	9.29	0.188	1.46	9.32	15.19	219	0.0	clear
0840	45.18	380	9.28	0.179	1.12	9.25	15.22	222	0.0	clear
0845	45.18	380	9.26	0.174	0.88	9.21	15.27	226	0.0	clear
0850	45.18	380	9.18	0.173	0.45	9.25	15.29	232	0.0	clear
0855	45.18	380	9.04	0.174	0.22	9.27	15.31	234	0.0	clear
0960	45.18	380	9.02	0.174	0.20	9.25	15.34	235	0.0	clear - collect sample

SIGNATURE(S): WAR

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

Sample ID No.: BPSI-TT-MW303$-20110301
Sample Location: BPSI-TT-MW303$
Sampled By: J. Birkett
C.O.C. No.: ___

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type: ___
[] QA Sample Type: ___

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1400								
Method: Low Flow GroundFos								

PURGE DATA:

Date: 3-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	see low flow purge sheet for details							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.34								
One Casing Volume(gal/L):								
Start Purge (hrs): 1303								
End Purge (hrs): 1400								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	7 40mL glass vials	yes
PCB	—	6 1L amber glass	yes
TAL Metals	HNO_3	1 500mL poly bottle	yes
Hexavalent Chromium	—	1 250mL poly bottle	yes

OBSERVATIONS / NOTES:

Pulled pump 3' off bottom

Circle if Applicable:

MS/MSD: Yes

Duplicate ID No.: ___

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP ~~Colts~~ Bethpage
PROJECT NUMBER: 112G0223
WELL ID.: BPSI-TT-MW303S
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1255	44.34									
1300	44.38	300	8.25	0.119	116	9.02	14.14	-11	0.0	slight tan tint
1305	44.38	300	7.79	0.128	77.7	9.07	11.95	13	0.0	" "
1311	44.38	350	7.41	0.126	71.9	8.88	14.62	29	0.0	clearish
1316	44.38	350	7.28	0.129	46.9	8.84	14.51	37	0.0	clear
1321	44.38	300	7.18	0.128	40.5	8.91	14.38	45	0.0	clear
1326	44.38	300	7.06	0.127	27.2	9.01	14.76	53	0.0	" "
1331	44.38	300	6.99	0.128	22.8	9.06	14.72	56	0.0	" "
1337	44.38	300	6.89	0.128	17.6	9.13	15.06	64	0.0	" "
1342	44.38	300	6.83	0.128	15.0	9.13	15.05	68	0.0	" "
1347	44.38	300	6.80	0.128	12.7	9.16	15.17	71	0.0	" "
1352	44.38	300	6.76	0.129	11.14	9.05	15.00	75	0.0	" " 5gal
1357	44.38	300	6.73	0.129	9.48	9.36	14.85	77	0.0	" "
1400	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW303I-20110301
Sample Location: BPSI-TT-MW303I
Sampled By: J. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1223	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow - Grundfos	Tan	8.49	0.312	12.16	1119	7.21	0.0	-47

PURGE DATA:

Date: 3-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	See low flow purge sheet for details							
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.72								
One Casing Volume(gal/L):								
Start Purge (hrs): 1121								
End Purge (hrs): 1223								
Total Purge Time (min): 62								
Total Vol. Purged (gal/L): 5.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40ml glass vials	yes
PCB	~~HCl~~	2 1L amber glass	yes

OBSERVATIONS / NOTES:

Pump pulled 3' off bottom
Turbidity very high (clay)

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G07236
WELL ID.: BPSI-TT-MW303I1
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1118	44.72									
1121	44.79	350	7.13	0.712	199	9.03	10.76	44	0.0	tan tint
1126	44.80	350	7.84	0.419	1471	3.73	11.31	32	0.0	tan color
1131	44.80	350	7.93	0.401	1623	4.36	11.52	23	0.0	tan color (clay)
1136	44.80	300	8.06	0.370	1417	5.23	11.74	12	0.0	" "
1141	44.80	300	8.11	0.354	1251	5.70	11.69	6	0.0	" "
1146	44.80	300	8.17	0.344	1190	5.87	11.77	-1	0.0	" "
1151	44.80	300	8.20	0.338	1105	6.05	11.91	-8	0.0	" "
1156	44.80	300	8.24	0.338	1096	6.01	1203	-15	0.0	" "
1201	44.80	300	8.28	0.325	1084	6.07	12.35	-22	0.0	" "
1206	44.80	300	8.33	0.327	1139	6.22	12.44	-28	0.0	" "
1211	44.80	300	8.40	0.322	1104	6.15	12.25	-36	0.0	" "
1216	44.80	300	8.44	0.314	1121	6.95	12.13	-41	0.0	" "
1221	44.80	300	8.49	0.312	1119	7.21	12.16	-47	0.0	" "
1223	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

Sample ID No.: BPSI-TT-MW303I2-20110301
Sample Location: BPSI-TT-MW303I2
Sampled By: J. Berkett
C.O.C. No.: ___

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type: ___
[] QA Sample Type: ___

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1046	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow-Groundfos	clear	5.71	0.109	12.43	13.7	8.89	0.0	121

PURGE DATA:

Date: 3-[illegible]1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	see low flow log sheet for details							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 44.99								
One Casing Volume(gal/L):								
Start Purge (hrs): 0950								
End Purge (hrs): 1046								
Total Purge Time (min): 56								
Total Vol. Purged (gal/L): 60 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40ML clear glass vials	yes
PCB	—	2 1L amber glass bottle	yes

OBSERVATIONS / NOTES:

Pump pull 2' off bottom

Circle if Applicable:

MS/MSD —

Duplicate ID No.: —

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW303I2
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0945	44.99									
0950	45.02	440	5.79	0.106	23.9	9.03	13.61	119	0.0	clear
0958	45.03	280	5.83	0.111	109.8	6.72	11.98	125	0.0	light tan w/VF sand
1004	45.03	300	5.73	0.110	1025	6.95	12.21	125	0.0	" "
1009	45.03	300	5.79	0.111	51.8	7.39	11.89	120	0.0	light tan w/ suspended silt
1014	45.03	300	5.72	0.110	37.7	7.58	12.13	123	0.0	clearish
1019	45.03	300	5.71	0.110	32.4	7.64	12.19	123	0.0	" "
1024	45.03	300	5.69	0.110	26.1	7.64	12.39	124	0.0	" "
1029	45.03	300	5.70	0.110	25.3	7.66	12.55	123	0.0	" "
1034	45.03	300	5.70	0.109	17.5	7.80	12.45	123	0.0	" "
1039	45.03	300	5.71	0.109	14.8	8.90	12.30	122	0.0	" " 5 gal
1044	45.03	300	5.71	0.109	13.7	8.89	12.43	121	0.0	" "
1046	Collect	Sample								

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW303D-20110301
Sample Location: BPSI-TT-MW303D
Sampled By: J. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-1-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 0913	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow-Groundfos	clear	6.18	0.159	12.62	19.3	7.73	0.0	110

PURGE DATA:

Date: 3-1-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	see low flow purge sheet for details							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 45.12								
One Casing Volume(gal/L):								
Start Purge (hrs): 0800								
End Purge (hrs): 0913								
Total Purge Time (min): 73								
Total Vol. Purged (gal/L): 7 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	—	2 1L amber glass	yes

OBSERVATIONS / NOTES:

pull pump 3' off bottom

Circle if Applicable:

MS/MSD	Duplicate ID No.:
[ ]	2

Signature(s): J. Birkett

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW303D
DATE: 3-1-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0755	45.12									
0800	45.15	320	5.89	0.160	7.12	3.88	17.12	160	0.0	clear
0806	45.15	320	5.89	0.163	30.3	4.41	14.30	158	0.0	
0810	45.15	320	5.97	0.166	15.2	5.11	13.56	150	0.0	light tan tint
0815	45.15	320	6.06	0.165	20.4	5.98	13.43	138	0.0	" "
0820	45.15	320	6.10	0.165	12.5	6.45	13.39	130	0.0	" "
0825	45.15	320	6.19	0.166	12.0	7.16	13.09	120	0.0	" "
0832	45.15	320	6.24	0.164	8.98	7.55	12.93	116	0.0	slight light tan tint
0836	45.15	320	6.25	0.164	7.77	7.54	12.84	115	0.0	" "
0841	45.15	320	6.25	0.162	7.25	7.58	12.67	113	0.0	clearish
0846	45.15	320	6.25	0.162	5.25	7.61	12.60	112	0.0	" "
0851	45.15	320	6.24	0.161	5.04	7.56	12.72	111	0.0	" " 5 gal purged
0856	45.15	320	6.24	0.160	3.46	7.76	12.60	110	0.0	" "
0901	45.15	320	6.22	0.159	3.09	7.77	12.65	108	0.0	clear
0906	45.15	320	6.19	0.159	2.35	7.77	12.59	109	0.0	clear
0911	45.15	320	6.18	0.159	1.93	7.73	12.62	110	0.0	
0913	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BW IRP Bethpage
Project No.: 112602230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW304S-20110303
Sample Location: MW304S
Sampled By: VAS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-3-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1235	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Redi Flow pump	clear	5.32	0.050	16.04	0.98	9.89	0.0	280

PURGE DATA:

Date: 3-3-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2 inch PVC								
Total Well Depth (TD):			(see Low Flow purge sheets)					
Static Water Level (WL): 48.25'								
One Casing Volume(gal/L):								
Start Purge (hrs): 1135								
End Purge (hrs): 1235								
Total Purge Time (min): 60								
Total Vol. Purged (gal/L): 5.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	yes
PCBs	4°C	2 x 1 Liter Amber	yes
Hex Chrom	4°C	1 x 250 ml poly	yes
TAL Metals	HNO_3	1 x 500 ml poly	yes

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No odors, stains, elevated PID readings observed.

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 11260 2230
WELL ID.: BPSI-TT-MW304S
DATE: 3-3-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1130	48.25	–	–	–	–	–	–	–	–	Initial
1135	48.25	400	6.37	0.066	84.5	10.34	13.11	307	0.0	Tinted (TB1)
1140	48.25	400	5.84	0.056	14.7	9.67	15.48	308	0.0	clear
1145	48.25	400	5.65	0.054	3.00	8.89	15.69	307	0.0	clear
1150	48.25	400	5.52	0.053	2.02	9.74	15.77	305	0.0	clear
1155	48.25	400	5.44	0.051	1.59	9.78	15.79	302	0.0	clear
1200	48.25	400	5.40	0.051	1.13	9.83	15.71	298	0.0	clear
1205	48.25	400	5.39	0.051	1.01	9.80	15.78	294	0.0	clear
1210	48.25	400	5.38	0.051	1.04	9.83	15.91	292	0.0	clear
1215	48.25	400	5.36	0.051	0.98	9.85	15.87	288	0.0	clear
1220	48.25	400	5.35	0.050	0.94	9.88	15.93	285	0.0	clear
1225	48.25	400	5.34	0.050	0.92	9.90	15.97	283	0.0	clear
1230	48.25	400	5.33	0.050	0.97	9.88	16.02	281	0.0	clear
1235	48.25	400	5.32	0.050	0.98	9.89	16.04	280	0.0	clear - collect sample

SIGNATURE(S): _____

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112602238

Sample ID No.: BPSI-TT-MW304I-20110302
Sample Location: MW304I
Sampled By: VAS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-2-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1520	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Redi Flow pump	Clear	7.13	0.182	15.97	9.97	8.82	0.0	182

PURGE DATA:

Date: 3-2-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2 inch PVC								
Total Well Depth (TD):								
Static Water Level (WL): 48.42								
One Casing Volume(gal/L):								
Start Purge (hrs): 1355								
End Purge (hrs): 1520								
Total Purge Time (min): 85								
Total Vol. Purged (gal/L): 7.6								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 x 40 ml vials	Yes
PCBs	4°C	2 x 1 Liter Amber	yes
Hex Chrom.	4°C	1 x 250 ml Poly	Yes
TAL Metals	HNO_3	1 x 500 ml poly	Yes

OBSERVATIONS / NOTES:

- pump set in screened interval of well
- No stains, odors, or elevated PID readings observed.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	
—	—	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112602230

WELL ID.: BPSI-TT-MW304I1
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments Initial
1345	48.42	~~400~~ VFS	—	—	~~375~~ VFS	—	—	—	—	~~cloudy - Brown~~ VFS
1355	48.42	400	9.10	0.260	375	9.43	15.33	165	0.0	cloudy (Brown)
1400	48.43	400	8.54	0.261	366	8.93	15.70	172	0.0	cloudy (Brown)
1405	48.43	400	8.37	0.254	258	8.79	15.81	171	0.0	cloudy (Brown)
1410	48.43	400	8.10	0.238	155	8.70	15.72	172	0.0	slightly cloudy (Tan)
1415	48.43	400	8.00	0.230	117	8.61	15.88	171	0.0	Slightly cloudy (Tan)
1420	48.43	400	7.90	0.224	89.6	8.64	15.81	173	0.0	Tinted (Tan)
1425	48.43	400	7.78	0.212	72.1	8.69	15.84	173	0.0	Tinted (Tan)
1430	48.43	400	7.67	0.204	52.3	8.72	15.87	174	0.0	slight Tint (Tan)
1435	48.43	400	7.57	0.196	46.4	8.71	15.92	174	0.0	Slight Tint (Tan)
1440	48.43	400	7.50	0.192	40.6	8.70	16.00	175	0.0	slight Tint (Tan)
1445	48.43	400	7.42	0.189	32.5	8.73	15.98	176	0.0	very slight Tint (Tan)
1450	48.43	400	7.35	0.187	28.3	8.76	15.94	177	0.0	clear
1455	48.43	400	7.30	0.185	21.8	8.81	15.90	178	0.0	clear
1500	48.43	400	7.25	0.185	19.9	8.78	15.95	179	0.0	clear
1505	48.43	400	7.21	0.185	16.8	8.80	15.93	180	0.0	clear
1510	48.43	400	7.18	0.183	13.5	8.81	15.96	180	0.0	clear
1515	48.43	400	7.15	0.183	12.8	8.78	16.00	181	0.0	clear
1520	48.43	400	7.13	0.182	9.97	8.82	15.97	182	0.0	clear - collect sample

SIGNATURE(S): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G07233

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW304I2-20110303
Sample Location: BPSI-TT-MW304I2
Sampled By:
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-3-11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1224								
Method: Low Flow-Grundfos								

PURGE DATA:

Date: 3-3-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	See low Flow purge sheet							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 48.72								
One Casing Volume(gal/L):								
Start Purge (hrs): 1132								
End Purge (hrs): 1224								
Total Purge Time (min): 52								
Total Vol. Purged (gal/L): 7 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	Yes
PCB	—	2 1 L amber glass	Yes
TAL Metals	HNO_3	1 500mL poly bottle	Yes
Hex Chrom	—	1 250mL poly bottle	Yes

OBSERVATIONS / NOTES:

Pull pump 3' off bottom

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NJWIRP Bethpage
PROJECT NUMBER: 112602230
WELL ID.: BPSI-TT-MW304I2
DATE: 3-3-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1130	48.72									
1132		400	5.59	0.230	52.8	6.84	12.29	217	0.0	clear
1137	48.63	400	5.89	0.213	47.9	6.45	9.25	197	0.0	" "
1142	48.67	400	5.86	0.172	86.3	8.01	8.74	174	0.0	tan tint
1147	48.67	400	5.79	0.169	57.8	8.80	9.51	158	0.0	" "
1152	48.67	400	5.85	0.170	42.1	8.93	9.78	152	0.0	slight tan tint
1157	48.67	400	5.83	0.149	33.7	8.74	9.94	154	0.0	clearish
1202	48.67	400	5.77	0.120	19.9	8.89	11.40	156	0.0	clear - pump temporarily sped up
1207	48.67	350	5.72	0.120	12.0	9.39	9.90	160	0.0	clear
1212	48.67	350	5.72	0.116	9.44	9.51	9.89	164	0.0	clear
1217	48.67	350	5.68	0.115	6.38	9.51	10.26	168	0.0	
1222	48.67	350	5.69	0.114	3.91	9.74	10.51	171	0.0	
1224	Collect sample									

SIGNATURE(S):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BPSI-TT-MW304D-20110302
Sample Location: BPSI-TT-MW304D
Sampled By: J. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 3-2-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1446	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow-Grundfos	clear	5.91	0.097	11.04	21.1	12.17	0.0	93

PURGE DATA:

Date: 3-2-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow	see low flow purge sheet for details							
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 48.66								
One Casing Volume(gal/L):								
Start Purge (hrs): 1338								
End Purge (hrs): 1446								
Total Purge Time (min): 68								
Total Vol. Purged (gal/L): 6.5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	3 40mL glass vials	yes
PCB	—	2 1L Amber glass	yes
TAL Metals	HNO_3	1 500mL poly bottle	yes
Hex Chrom	—	1 250mL poly bottle	yes

OBSERVATIONS / NOTES:

Pulled ~3' From bottom
pump up

Circle if Applicable:

MS/MSD —

Duplicate ID No.: BPSI-Dup02-20110302 (1200)

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
WELL ID.: BPSI-TT-MW304D
DATE: 3-2-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1335	48.66									
1338	48.71	275	6.46	0.134	2.69	9.68	12.63	45	0.0	clear
1343	48.71	275	6.51	0.126	6.03	10.53	10.93	34	0.0	clear
1349	48.71	300	6.36	0.110	175	11.17	11.08	36	0.0	tan tint
1354	48.71	300	6.28	0.105	172	11.47	11.10	39	0.0	" "
1359	48.71	300	6.20	0.101	121	11.63	11.21	44	0.0	" "
1404	48.70	300	6.17	0.100	133	11.71	11.18	47	0.0	" "
1409	48.70	300	6.07	0.100	72.5	11.76	11.19	54	0.0	" "
1414	48.70	300	5.97	0.099	56.5	12.03	10.94	67	0.0	" "
1419	48.70	300	5.93	0.097	60.2	12.10	10.87	76	0.0	" "
1424	48.70	300	5.93	0.097	46.4	11.96	11.04	81	0.0	" " 5 gal
1429	48.70	300	5.90	0.097	34.2	12.10	10.96	86	0.0	slight tan tint
1434	48.70	300	5.91	0.098	33.8	12.00	11.13	85	0.0	" "
1439	48.70	300	5.89	0.098	26.6	12.09	11.04	88	0.0	Clear/slo
1444	48.70	300	5.91	0.097	21.1	12.17	11.04	93	0.0	" "
1446	Collect sample									

SIGNATURE(S):

QA SAMPLE LOG SHEETS

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: 112G02230
Sample Location: Site 4 SVE Building
QA Sample Type:

Sample ID Number: BPSI-RB01-20101201
Sampled By: JB+VS
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 12-01-10
Time: 0730
Method: Direct pour over equipment

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL® Reagent Grade Water
Supplier: Scientific Sales Inc
Manufacturer: Thermo Scientific
Order Number:
Lot Number: 8 Lot 09111210
Expiration Date: 9 2011

RINSATE INFORMATION (If Applicable):

Media Type: Groundwater
Equipment Used: GrundFos RediFlo
Equipment Type:
[] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	3 40mL glass vial	(YES) / NO
Semivolatiles	Cool 4°C		YES / NO
~~Pesticide~~ / PCB	Cool 4°C	2 1L amber glass bottle	(YES) / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage (Site 1) Sample ID Number: BPS1-SB01-20101201
Project Number: 112G02230 Sampled By: VAS
Sample Location: Site 1 C.O.C. Number:
QA Sample Type:

[] Trip Blank [] Rinsate Blank
[X] Source Water Blank [] Other Blank

SAMPLING DATA:	WATER SOURCE:
Date: 12-1-10	[] Laboratory Prepared [] Tap
Time: 1310	[] Purchased [] Fire Hydrant
Method: Grab	[X] Other Plant 1 Site water source

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):	RINSATE INFORMATION (If Applicable):
Product Name:	Media Type:
Supplier:	Equipment Used:
Manufacturer:	Equipment Type:
Order Number:	[] Dedicated
Lot Number:	[] Reusable
Expiration Date:	

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	3 x 40 ml Vials	(YES) / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / (PCB)	Cool 4°C	2 x 1 Liter Amber bottles	(YES) / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

- Water collected from spigot in Plant 1 onsite

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: 112G02230
Sample Location:
QA Sample Type:

Sample ID Number: BPSI-TB01-20101129
Sampled By: Lab prepared
C.O.C. Number:

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 11-29-10
Time: 1100
Method: Lab

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	2 40mL VOA vial	(YES) / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: CTO-WE06
Sample Location:
QA Sample Type:

Sample ID Number: BPSI-TB01-20110228
Sampled By: JB
C.O.C. Number:

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 2-28-11
Time: 0845
Method: Lab prepared

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	2 40mL glass vials	(YES) / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: 112G02230
Sample Location:
QA Sample Type:

Sample ID Number: BPS1-TB02-20110301
Sampled By: JB
C.O.C. Number:

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 3-1-11
Time: 1706
Method: Lab prepared

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	3 40mL glass vial	(YES) / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: 112G02230
Sample Location:
QA Sample Type:

Sample ID Number: BPS1-TB03-20110303
Sampled By: JB
C.O.C. Number:

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 3-3-11
Time: 0731
Method: Lab prepared

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	2 40 mL glass vial	(YES) NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: 112G02230
Sample Location: Site 4 office
QA Sample Type:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

Sample ID Number: BPSI-RB01-20110302
Sampled By: VAS / JB
C.O.C. Number:

SAMPLING DATA:

Date: 3-2-11
Time: 0745
Method: Direct pour

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade H_2O
Supplier:
Manufacturer: Thermo Scientific
Order Number:
Lot Number: 0808240
Expiration Date: 08-2011

RINSATE INFORMATION (If Applicable):

Media Type: Aqueous
Equipment Used: RediFlow pump
Equipment Type:
[] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	3 X 40 Ml Vials	(YES) / NO
Semivolatiles	Cool 4°C		YES / NO
~~Pesticide~~ / PCB	Cool 4°C	2 X 1 Liter Amber	(YES) / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

- Sample collected by pouring water over cleaned RediFlow pump directly into bottleware

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: 112G02230
Sample Location: AOC-22 office
QA Sample Type:
[] Trip Blank
[X] Source Water Blank

Sample ID Number: BPSI-FB01-20110303
Sampled By: VAS / JB
C.O.C. Number:
VAS
~~[X] Rinsate Blank~~
[] Other Blank

SAMPLING DATA:

Date: 3-3-11
Time: 0730
Method: Direct Pour

WATER SOURCE:

[] Laboratory Prepared
[] Purchased
[X] Other Onsite Plant #3 water
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	3 x 40 ml vials	(YES) / NO
Semivolatiles	Cool 4°C	2 x 1 Liter Amber	(YES) / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

- Water obtained from NWIRP Bethpage Plant #3 water source.

Signature(s):

APPENDIX B

SURVEY DATA

BANC3, Inc.
Consulting Engineers
www.banc3.com

- Engineers
- Surveyors
- Construction Managers
- Information Technology

379 Princeton-Hightstown Road
Cranbury, NJ 08512
609.448.6776 phone
609.448.5590 fax

Survey Report
U.S. Navy – NWIRP
Bethpage, New York
Subcontract # 1069203
Job # 112G02230
BANC3 Project # 2000215-04
June 17, 2011

BANC3, Inc.
Consulting Engineers
www.banc3.com

- Engineers
- Surveyors
- Construction Managers
- Information Technology

379 Princeton-Hightstown Road
Cranbury, NJ 08512
609.448.6776 phone
609.448.5590 fax

June 17, 2011

Robert Sok, P.G.
Project Manager / Geologist
Tetra Tech NUS, Inc.
5700 Lake Wright Drive, Suite 309
Norfolk, VA 23502

Re.: Survey Report
US Navy – NWIRP
Bethpage, New York
Subcontract # 1069203
Job # 112G02230
BANC3 Project # 2000215-04

Dear Mr. Sok,

BANC3 Inc. is pleased to provide you with our completed Survey Report for the above referenced project.

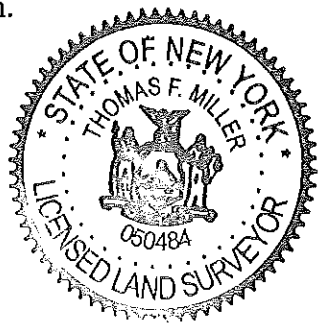
BANC3 performed field surveys relative to the subject project to include Global Positioning Systems (GPS), conventional Total Station Surveys and differential leveling surveys. From the data, a table of Monitoring Well and Soil Boring Locations was prepared and included herein. The table includes control points utilized, locations and elevations of Monitoring Well cover, inner casing and adjacent ground where appropriate and Soil Boring locations and elevations. BANC3 performed field reconnaissance and locations of survey control markers tied National Geodetic Survey (NGS) monument designated as "15E 14N" (PID # KU5039) included herein. BANC3 verified the positioning and accuracy of the Monitoring Wells and Soil Borings through our ground field locations and redundant measurements of survey control points. All locations are referenced to New York State Plane Coordinates (Long Island Zone), North American Datum of 1983 and elevations referenced to North American Vertical Datum of 1988. (NAD83, NAVD 88).

We appreciate the opportunity to work with your organization and the US Navy. Please contact me if you have any questions and/or require additional information.

Respectfully submitted,

Thomas F. Miller

Thomas F. Miller, PLS, PP
State of New York Professional Land Surveyor #050484



BETHPAGE, NEW YORK / MARCH 29, 2011

MONITORING WELL & SOIL BORING LOCATIONS

DESCRIPTION	GRID NORTH (US FT)	GRID EAST (US FT)	ELEV (US FT)	B3 PT #
GPS MON	214296.002	1125124.594	122.84	15E14N
CIP / CONTROL POINT	214063.933	1123668.505	123.38	1
MW304D	213692.271	1124994.753	119.35	1034
INNER CASING	213692.402	1124994.872	119.19	1035
GROUND	213692.774	1124994.772	116.67	1033
MW304I2	213705.436	1124989.868	119.50	1031
INNER CASING	213705.308	1124989.959	119.18	1032
GROUND	213705.800	1124989.978	116.70	1030
MW304I1	213717.100	1124995.715	119.42	1028
INNER CASING	213717.136	1124995.654	119.27	1029
GROUND	213717.458	1124995.756	116.77	1027
MW304S	213728.252	1124991.233	119.32	1025
INNER CASING	213728.388	1124991.260	119.13	1026
GROUND	213728.973	1124990.973	116.49	1024
BPS1-SB3012	213743.011	1124996.093	116.34	1023
MW303S / BPS1-SB3011	213778.188	1124583.496	116.06	1047
INNER CASING	213778.467	1124583.243	115.65	1048
MW303I1	213778.636	1124572.255	116.08	1045
INNER CASING	213778.660	1124572.598	115.83	1046
MW303I2	213779.054	1124562.054	116.15	1043
INNER CASING	213779.237	1124562.570	115.89	1044
MW303D	213779.290	1124550.691	116.20	1041
INNER CASING	213779.342	1124551.030	115.94	1042
MW302S	213812.671	1124261.772	116.32	1050
INNER CASING	213812.579	1124262.236	116.01	1051

DESCRIPTION	GRID NORTH (US FT)	GRID EAST (US FT)	ELEV (US FT)	B3 PT #
MW302I1	213812.870	1124251.046	116.32	1052
INNER CASING	213812.936	1124251.595	115.91	1053
MW302I2	213813.430	1124241.215	116.33	1054
INNER CASING	213813.253	1124240.951	115.91	1055
MW302D	213814.240	1124230.805	116.35	1056
INNER CASING	213814.309	1124230.390	116.08	1057
BPS1-SB3010	213818.402	1124262.820	116.20	1049
BPS1-HN-MW29I	213928.573	1124685.862	116.06	1036
INNER CASING	213928.608	1124685.400	115.37	1037
BPS1-HN-MW29D*	213933.694	1124704.902	116.07	1038
INNER CASING	213933.476	1124704.757	115.50	1039
BPS1-FW-MW01	213962.716	1124962.141	126.12	1021
INNER CASING	213962.409	1124962.015	126.10	1022
GROUND	213963.033	1124962.390	123.57	1020
BPS1-FW-MW02	213966.997	1124866.932	126.88	1018
INNER CASING	213967.039	1124866.921	126.85	1019
GROUND	213967.131	1124866.676	124.23	1017
BPSI-FW-MW03	213978.519	1124733.417	125.69	1015
INNER CASING	213978.321	1124733.159	125.46	1016
GROUND	213979.105	1124733.023	122.86	1014
BPS1-SB3009	214015.133	1124333.031	119.70	1040
BPS1-SB3007	214062.454	1124799.884	121.82	1013
BPS4-HN-MW24I(R?)	214063.362	1123251.662	126.13	1059
INNER CASING	214063.502	1123251.788	125.85	1060
GROUND	214063.533	1123252.298	122.09	1058
BPS1-SB3006	214229.395	1124842.932	123.76	1012
BPS1-SB3005	214343.163	1124827.807	123.89	1011

DESCRIPTION	GRID NORTH (US FT)	GRID EAST (US FT)	ELEV (US FT)	B3 PT #
BPS1-SB3004	214451.761	1124822.213	124.91	1010
BPS1-SB3008	214480.411	1124709.613	122.62	1000
MW-301S	214560.420	1124865.194	129.04	1008
INNER CASING	214560.407	1124865.149	128.88	1009
GROUND	214560.046	1124865.133	126.37	1001
MW-301D	214562.648	1124880.908	129.06	1006
INNER CASING	214562.543	1124881.037	128.90	1007
GROUND	214562.076	1124881.153	126.35	1002
MW-301I	214566.279	1124906.201	128.62	1004
INNER CASING	214566.343	1124906.071	128.48	1005
GROUND	214565.795	1124905.989	125.95	1003

	BPS1-SB3003	**NOT COMPLETE IN FIELD**
	ADDITIONAL WELL	*

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE =  , PROGRAM = datasheet, VERSION = 7.87.1
1        National Geodetic Survey,   Retrieval Date = JUNE 15, 2011
 KU5039 ***********************************************************************
 KU5039  DESIGNATION -  15E 14N
 KU5039  PID         -  KU5039
 KU5039  STATE/COUNTY-  NY/NASSAU
 KU5039  USGS QUAD   -  HUNTINGTON (1979)
 KU5039
 KU5039                         *CURRENT SURVEY CONTROL
 KU5039  ______________________________________________________________________
 KU5039* NAD 83(2007)-  40 45 13.49016(N)     073 29 29.50713(W)      ADJUSTED
 KU5039* NAVD 88     -        37.4     (meters)      123.      (feet)  VERTCON
 KU5039  ______________________________________________________________________
 KU5039  EPOCH DATE  -        2002.00
 KU5039  X           -   1,374,891.931 (meters)                        COMP
 KU5039  Y           -  -4,639,038.874 (meters)                        COMP
 KU5039  Z           -   4,141,749.994 (meters)                        COMP
 KU5039  LAPLACE CORR-           4.02  (seconds)                       DEFLEC09
 KU5039  ELLIP HEIGHT-           6.331 (meters)          (02/10/07)  ADJUSTED
 KU5039  GEOID HEIGHT-         -31.11  (meters)                        GEOID09
 KU5039
 KU5039  -------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 KU5039  Type     PID    Designation                          North   East  Ellip
 KU5039  ----------------------------------------------------------------------
 KU5039  NETWORK KU5039 15E 14N                                1.29   1.12   2.78
 KU5039  ----------------------------------------------------------------------
 KU5039
KU5039.The horizontal coordinates were established by GPS observations
KU5039.and adjusted by the National Geodetic Survey in February 2007.
KU5039
KU5039.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
KU5039.See National Readjustment for more information.
KU5039.The horizontal coordinates are valid at the epoch date displayed above.
KU5039.The epoch date for horizontal control is a decimal equivalence
KU5039.of Year/Month/Day.
KU5039
KU5039.The NAVD 88 height was computed by applying the VERTCON shift value to
KU5039.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
KU5039
KU5039.The X, Y, and Z were computed from the position and the ellipsoidal ht.
KU5039
KU5039.The Laplace correction was computed from DEFLEC09 derived deflections.
KU5039
KU5039.The ellipsoidal height was determined by GPS observations
KU5039.and is referenced to NAD 83.
KU5039
KU5039.The geoid height was determined by GEOID09.
KU5039
KU5039;                    North          East      Units Scale Factor Converg.
KU5039;SPC NY L      -    65,317.552   342,938.662   MT  0.99999631   +0 19 57.3
KU5039;SPC NY L      -   214,296.00  1,125,124.59   sFT 0.99999631   +0 19 57.3
KU5039;UTM  18       - 4,512,515.673   627,337.852   MT  0.99979958   +0 59 05.6
```

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE =  ,PROGRAM = datasheet, VERSION = 7.87.1
1         National Geodetic Survey,   Retrieval Date = JUNE 15, 2011
 KU5039 ***********************************************************************
 KU5039  DESIGNATION -  15E 14N
 KU5039  PID         -  KU5039
 KU5039  STATE/COUNTY-  NY/NASSAU
 KU5039  USGS QUAD   -  HUNTINGTON (1979)
 KU5039
 KU5039                        *CURRENT SURVEY CONTROL
 KU5039  ______________________________________________________________________
 KU5039* NAD 83(2007)-  40 45 13.49016(N)     073 29 29.50713(W)      ADJUSTED
 KU5039* NAVD 88     -        37.4     (meters)      123.      (feet)  VERTCON
 KU5039  ______________________________________________________________________
 KU5039  EPOCH DATE  -        2002.00
 KU5039  X           -   1,374,891.931 (meters)                        COMP
 KU5039  Y           -  -4,639,038.874 (meters)                        COMP
 KU5039  Z           -   4,141,749.994 (meters)                        COMP
 KU5039  LAPLACE CORR-           4.02  (seconds)                       DEFLEC09
 KU5039  ELLIP HEIGHT-           6.331 (meters)          (02/10/07) ADJUSTED
 KU5039  GEOID HEIGHT-         -31.11  (meters)                        GEOID09
 KU5039
 KU5039  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 KU5039  Type    PID    Designation                          North   East  Ellip
 KU5039  ----------------------------------------------------------------------
 KU5039  NETWORK KU5039 15E 14N                               1.29   1.12   2.78
 KU5039  ----------------------------------------------------------------------
 KU5039
KU5039.The horizontal coordinates were established by GPS observations
KU5039.and adjusted by the National Geodetic Survey in February 2007.
KU5039
KU5039.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
KU5039.See National Readjustment for more information.
KU5039.The horizontal coordinates are valid at the epoch date displayed above.
KU5039.The epoch date for horizontal control is a decimal equivalence
KU5039.of Year/Month/Day.
KU5039
KU5039.The NAVD 88 height was computed by applying the VERTCON shift value to
KU5039.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
KU5039
KU5039.The X, Y, and Z were computed from the position and the ellipsoidal ht.
KU5039
KU5039.The Laplace correction was computed from DEFLEC09 derived deflections.
KU5039
KU5039.The ellipsoidal height was determined by GPS observations
KU5039.and is referenced to NAD 83.
KU5039
KU5039.The geoid height was determined by GEOID09.
KU5039
KU5039;                    North          East      Units Scale Factor Converg.
KU5039;SPC NY L     -    65,317.552    342,938.662   MT  0.99999631   +0 19 57.3
KU5039;SPC NY L     -   214,296.00   1,125,124.59   sFT  0.99999631   +0 19 57.3
KU5039;UTM  18      - 4,512,515.673    627,337.852   MT  0.99979958   +0 59 05.6
```

BANC3

Tetra Tech - Bethpage, NY

16 June 2011

INPUT

Geographic, NAD83

OUTPUT

State Plane, NAD83
3104 - New York Long Island, U.S. Feet

15E14N (KU5039)

1/1

Latitude: 40 45 13.49016
Longitude: 073 29 29.50713

Northing/Y: 214296.001
Easting/X: 1125124.593

Convergence: 0 19 57.29260
Scale Factor: 0.999996308

Remark: Prepared by: Thomas F. Miller, PLS, PP

DERIVATION OF ORTHOMETRIC HEIGHT OF NATIONAL GEODETIC SURVEY MONUMENT 15E 14N (PID # KU5039)

"It is a straightforward procedure to algebraically subtract an interpolated geoid height, N, from a GPS ellipsoidal height, h, to obtain and orthometric height, H:

$$H = h - N"[1]$$

For NGS Monument 15E 14N:

H = Orthometric Height (to be determined)

h = Ellipsoidal Height (6.331 meters) Adjusted 02/10/07

N = Geoid Height (-31.11 meters)

or

H = 6.331m – (-31.11m)

H = 37.441m (or 122.84 feet)

[1] Converting GPS Height into NAVD88 Elevation with the GEOID96 Geoid Height Model, Dennis G. Milbert, Ph.D. and Dru A. Smith, Ph.D., National Geodetic Survey, NOAA

APPENDIX C

FIELD TEST KIT RESULTS

Appendix C
Field Test Kit Results
Site 1 - Former Drum Marshalling Area
NWIRP Bethpage, New York

SAMPLE DATE/TIME	SAMPLE TIME	SAMPLE ID	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS ID	CHLORIDE RESULT (mg/kg)	PCB RESULT AS PCB-1248 (mg/kg)	COMMENTS
7/13/10 16:56		BPS1-SB3004-27.528.0	7/14/10 8:25		00001	1.40	0.02	
7/14/10 8:22		BPS1-SB3004-34.034.5	7/14/10 12:40		00002	2.10	2.23	
7/14/10 8:25		BPS1-SB3004-37.037.5	7/14/10 12:45		00003	1.64	0.96	
7/14/10 8:41		BPS1-SB3004-42.042.5	7/14/10 12:48		00004	2.05	2.07	
7/14/10 8:45		BPS1-SB3004-47.047.5	7/14/10 12:52		00005	2.16	2.38	
7/14/10 9:14		BPS1-SB3004-49.049.5	7/14/10 12:54		00006	1.95	1.80	
7/14/10 9:19		BPS1-SB3004-54.054.5	7/14/10 12:56		00007	2.14	2.33	
7/14/10 10:58		BPS1-SB3004-61.061.5	7/14/10 15:38		00008	1.77	1.58	
7/14/10 0:00		BPS1-SB3004-64.565				--	--	Analytical data only
7/14/10 11:00		BPS1-SB3004-68.068.5	7/14/10 15:40		00009	1.61	1.15	
7/14/10 11:02		BPS1-SB3004-71.071.5	7/14/10 15:42		00010	1.77	1.58	
7/14/10 11:05		BPS1-SB3004-77.578.0	7/14/10 15:47		00011	1.96?	1.85	PRINT OUT BAD FOR CHLORIDE RESULT
7/14/10 11:48		BPS1-SB3004-82.082.5	7/14/10 15:49		00012	1.88	1.91	
7/14/10 11:50		BPS1-SB3004-86.086.5	7/14/10 15:51		00013	1.99	2.20	
7/14/10 11:52		BPS1-SB3004-91.091.5	7/14/10 15:53		00014	1.85	1.81	
7/14/10 11:55		BPS1-SB3004-97.097.5	7/14/10 18:10		00015	1.91	1.97	
7/14/10 13:10		BPS1-SB3004-101.0101.5	7/14/10 18:14		00016	1.51	0.88	
7/14/10 13:12		BPS1-SB3004-106.0106.5	7/14/10 18:16		00017	1.56	1.00	
7/14/10 13:14		BPS1-SB3004-111.0111.5	7/14/10 18:18		00018	1.63	1.21	
7/14/10 13:17		BPS1-SB3004-116.0116.5	7/14/10 18:20		00019	3.39?	3.30	PRINT OUT BAD FOR CHLORIDE RESULT
7/14/10 15:36		BPS1-SB3004-130140	7/14/10 18:23		00020	1.80	1.66	
7/14/10 14:00		BPS1-SB3004-120130	7/14/10 18:25		00021	1.90	2.17 (1.95)	only ~4.5ml extracted 1.95*5/4.5=2.17
7/14/10 14:00		BPS1-SB3004-120130	7/14/10 18:30		21A	2.14	5.24	2.62x2=5.24 rerun of sample 21 ...5g used due water absorption
7/14/10 15:56		BPS1-SB3004-154.0154.5	7/15/10 10:18		00022	1.86	1.84	
7/14/10 16:31		BPS1-SB3004-150160	7/15/10 10:22		00023	1.65	1.25	
7/14/10 16:38		BPS1-SB3004-160170	7/15/10 10:34		00024	1.76	1.57	
7/14/10 17:31		BPS1-SB3004-170180	7/15/10 10:36		00025	1.92	1.99	
7/14/10 17:40		BPS1-SB3004-180190	7/15/10 10:38		00026	2.30	3.05	
7/14/10 17:50		BPS1-SB3004-190198	7/15/10 10:41		00027	1.85	1.81	
7/15/10 10:18		BPS1-SB3004-200210	7/15/10 14:48		00028	1.85	1.81	
7/15/10 11:32		BPS1-SB3004-235.0235.5	7/15/10 14:51		00029	1.82	1.73	
7/15/10 11:45		BPS1-SB3004-210220	7/15/10 14:54		00030	1.93	2.04	
7/15/10 11:51		BPS1-SB3004-220230	7/15/10 14:57		00031	2.13	2.58	
7/15/10 12:48		BPS1-SB3004-230240	7/15/10 14:59		00032	2.03	2.29	
7/15/10 12:56		BPS1-SB3004-240250	7/15/10 15:01		00033	2.23	2.87	
7/15/10 15:06		D.I. Blank	7/15/10 15:06		D.I. Blank	LOW	-----	test of DI water with no extraction analysis
7/16/10 10:51		BPS1-SB3005-27.528.0	7/16/10 12:53		00034	2.22	2.83	
7/16/10 11:15		BPS1-SB3005-37.538.0	7/16/10 12:56		00035	2.13	2.59	
7/16/10 11:25		BPS1-SB3005-34.034.5	7/16/10 12:58		00036	2.03	2.29	
7/16/10 12:01		**BPS1-SB3005-54.555.0**	**7/16/10 15:35**		**00037**	**72.50**	**197**	
7/16/10 12:16		BPS1-SB3005-43.043.5	7/16/10 15:39		00038	1.55	0.97	
7/16/10 12:22		BPS1-SB3005-49.049.5	7/16/10 15:41		00039	1.52	0.89	
7/16/10 12:27		**BPS1-SB3005-57.558.0**	**7/16/10 15:43**		**00040**	**71.50**	**194**	
7/16/10 13:08		**BPS1-SB3005-008**	**7/16/10 15:45**		**00041**	**97.80**	**267**	**surface soil**
7/16/10 14:19		BPS1-SB3005-61.061.5	7/16/10 17:38		00042	1.38	0.42	
7/16/10 14:35		BPS1-SB3005-77.578.0	7/16/10 17:41		00045	1.53	0.91	
7/16/10 14:50		BPS1-SB3005-86.086.5	7/16/10 17:43		00047	1.65	1.25	
7/16/10 15:00		BPS1-SB3005-97.598.0	7/16/10 17:46		00049	1.59	1.08	
7/16/10 14:26		BPS1-SB3005-66.066.5	7/17/10 11:22		00043	1.71	1.43	
7/16/10 14:31		BPS1-SB3005-72.072.5	7/17/10 11:25		00044	1.71	1.42	

Appendix C
Field Test Kit Results
Site 1 - Former Drum Marshalling Area
NWIRP Bethpage, New York

SAMPLE DATE/TIME	SAMPLE TIME	SAMPLE ID	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS ID	CHLORIDE RESULT (mg/kg)	PCB RESULT AS PCB-1248 (mg/kg)	COMMENTS
7/16/10 14:43		BPS1-SB3005-81.081.5	7/17/10 11:27		00046	1.99	2.21	
7/16/10 14:55		BPS1-SB3005-94.595.0	7/17/10 11:28		00048	1.73	1.48	
7/16/10 15:23		BPS1-SB3005-102.0102.5	7/17/10 11:31		00050	1.83	1.77	
7/16/10 15:28		BPS1-SB3005-105.5106.0	7/17/10 11:33		00051	2.08	2.45	
7/16/10 15:33		BPS1-SB3005-111.0111.5	7/17/10 11:35		00052	2.00	2.21	
7/16/10 15:38		BPS1-SB3005-117.0117.5	7/17/10 11:37		00053	2.10	2.49	
7/17/10 16:10		BPS1-SB3005-120130	7/17/10 11:38		00054	2.12	2.56	
7/16/10 16:20		BPS1-SB3005-130138	7/17/10 11:40		00055	2.14	2.63	
7/17/10 8:49		BPS1-SB3005-145.0145.5	7/17/10 14:46		00056	1.61	1.14	
7/17/10 9:06		BPS1-SB3005-140150	7/17/10 14:49		00057	1.84	1.79	
7/17/2010 0929		BPS1-SB3005-150160	7/17/10 14:51		00058	1.59	1.08	
7/17/10 9:35		BPS1-SB3005-160170	7/17/10 14:53		00059	1.56	1.00	
7/17/10 10:25		BPS1-SB3005-170180	7/17/10 14:55		00060	1.47	0.76	
7/17/10 10:36		BPS1-SB3005-180190	7/17/10 14:56		00061	1.48	0.78	
7/17/10 11:16		BPS1-SB3005-190200	7/17/10 14:58		00062	1.62	1.18	
7/17/10 11:23		BPS1-SB3005-200210	7/17/10 14:59		00063	1.85	1.80	
7/17/10 12:17		BPS1-SB3005-232.5233.0	7/17/10 17:06		00064	1.32	0.34	
7/17/10 12:30		BPS1-SB3005-210220	7/17/10 17:08		00065	1.35	0.42	
7/17/10 12:42		BPS1-SB3005-220230	7/17/10 17:10		00066	1.52	0.89	
7/17/10 15:08		BPS1-SB3005-230240	7/17/10 17:12		00067	1.44	0.67	
7/17/10 15:13		BPS1-SB3005-240250	7/17/10 17:14		00068	1.51	0.87	
7/27/2010	8:55	BPS1-SB3006-27.027.5	7/27/2010	14:34	00069	1.49	-0.81	
7/27/2010			7/27/2010	-	70-pblk			
7/27/2010	9:52	BPS1-SB3006-36.537.0	7/27/2010	14:38	00071	1.49	-0.83	
7/27/2010	**9:46**	**BPS1-SB3006-32.032.5**	**7/27/2010**	**14:58**	**00072**	**5.79**	**11.1**	
7/27/2010	10:16	BPS1-SB3006-42.042.5	7/27/2010	15:01	00073	1.56	-0.63	
7/27/2010	10:23	BPS1-SB3006-46.547.0	7/27/2010	15:03	00074	1.72	-0.17	
7/27/2010	10:45	BPS1-SB3006-53.053.5	7/27/2010	15:05	00075	1.55	-0.66	
7/27/2010	10:56	BPS1-SB3006-56.557.0	7/27/2010	15:06	00076	1.44	-0.97	
7/27/2010	12:37	BPS1-SB3006-67.067.5	7/27/2010	15:07	00077	1.8	0.03	
7/27/2010	12:48	BPS1-SB3006-77.077.5	7/27/2010	15:09	00078	1.55	-0.64	
7/27/2010	12:42	BPS1-SB3006-72.072.5	7/27/2010	15:10	00079	1.65	-0.37	
7/27/2010	14:12	BPS1-SB3006-80.581.0	7/28/2010	7:51	00080	1.12	0.05	
7/27/2010	14:17	BPS1-SB3006-86.086.5	7/28/2010	7:52	00081	1.28	0.5	
7/27/2010	14:23	BPS1-SB3006-91.091.5	7/28/2010	7:53	00082	1.31	0.58	
7/27/2010	14:28	BPS1-SB3006-96.096.5	7/28/2010	7:55	00083	1.08	-0.05	
7/27/2010	14:53	BPS1-SB3006-117.0117.5	7/28/2010	7:57	00084	1.07	-0.08	
7/27/2010	15:03	BPS1-SB3006-101.0101.5	7/28/2010	7:59	00085	1.14	0.11	
7/27/2010	15:09	BPS1-SB3006-107.0107.5	7/28/2010	8:01	00086	1.29	0.51	
7/27/2010	15:11	BPS1-SB3006-110.0111.5	7/28/2010	8:03	00087	1.23	0.35	
7/27/2010			7/28/2010	-	88-pblk			
7/27/2010	16:58	BPS1-SB3006-120130	7/28/2010	10:32	00089RE	1.66	0.05	Orginial extraction didn't work.
7/27/2010	16:58	BPS1-SB3006-130140	7/28/2010	10.19	00090	1.54	-0.27	
7/27/2010	17:05	BPS1-SB3006-140150	7/28/2010	10:21	00091	1.99	0.97	
7/27/2010	17:45	BPS1-SB3006-150160	7/28/2010	10:22	00092	1.63	-0.01	
7/27/2010	17:52	BPS1-SB3006-160170	7/28/2010	10:24	00093	1.53	-0.29	
7/27/2010	17:57	BPS1-SB3006-170178	7/28/2010	10:25	00094	1.59	-0.13	
7/28/2010	7:50	BPS1-IDW3006-01	7/28/2010	10:27	00095	1.64	0.001	Analyist error
7/28/2010	7:50	BPS1-IDW3006-01	7/28/2010	10:28	00095RA	1.69	0.14	
7/28/2010	7:50	BPS1-IDW3006-01	7/28/2010	10:30	00095RA2	1.75	0.3	Don't use these
7/28/2010			7/28/2010	-	96-pblk			

Appendix C
Field Test Kit Results
Site 1 - Former Drum Marshalling Area
NWIRP Bethpage, New York

SAMPLE DATE/TIME	SAMPLE TIME	SAMPLE ID	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS ID	CHLORIDE RESULT (mg/kg)	PCB RESULT AS PCB-1248 (mg/kg)	COMMENTS
7/28/2010	8:43	BPS1-SB3006-181.0181.5	7/28/2010	12:42	00097	1.75	0.09	
7/28/2010	8:52	BPS1-SB3006-180190	7/28/2010	12:43	00098	1.46	-0.72	
7/28/2010	9:33	BPS1-SB3006-190200	7/28/2010	12:47	00099	1.55	-0.39	
7/28/2010	9:40	BPS1-SB3006-200210	7/28/2010	12:48	00100	1.48	-0.59	
7/28/2010	10:38	BPS1-SB3006-226.5227.0	7/28/2010	12:49	00101	1.32	-1.04	
7/28/2010	10:48	BPS1-SB3006-210220	7/28/2010	12:50	00102	1.32	-1.05	
7/28/2010	10:55	BPS1-SB3006-220230	7/28/2010	12:52	00103	1.41	-0.8	
7/28/2010			7/28/2010	-	104-pblk			
7/28/2010	11:35	BPS1-SB3006-230240	7/28/2010	14:25	00105	1.28	-1.15	
7/28/2010	11:43	BPS1-SB3006-240250	7/28/2010	14:29	00106	1.25	-1.24	
7/28/2010	14:15	BPSI-IDW3005-01	7/28/2010		00107			
7/28/2010	**14:26**	**BPS1-IDW3005-02**	**7/28/2010**	**15:16**	**00108**	**5.57**	**10.7**	
7/28/2010	**14:26**	**BPS1-IDW3005-02**	**7/28/2010**	**15:18**	**00108RA**	**5.57**	**11.1**	Run as verification don't use this result.
7/29/2010	9:14	BPS1-SB3007-08.008.5	7/29/2010	11:52	00109	1.4	0.38	Orginial extraction didn't give full extraction. don't use.
7/29/2010	9:14	BPS1-SB3007-08.008.5	7/29/2010	11:54	00109RE	1.47	0.58	
7/29/2010	9:33	BPS1-SB3007-27.027.5	7/29/2010	11:46	00110	1.27	0.01	
7/29/2010	9:52	BPS1-SB3007-37.538.0	7/29/2010	11:48	00111	1.28	0.06	
7/29/2010	10:03	BPS1-SB3007-30.030.5	7/29/2010	11:50	00112	1.54	0.77	
7/29/2010			7/29/2010	-	113-pblk			
7/29/2010	10:22	BPS1-SB3007-43.544.0	7/29/2010	15:44	00114	1.11	-0.22	
7/29/2010	10:27	BPS1-SB3007-47.047.5	7/29/2010	15:46	00115	1.04	-0.44	
7/29/2010	10:30	BPS1-IDW3007-01	7/29/2010	15:48	00116	1.17	-0.08	
7/29/2010	10:37	BPS1-SB3007-57.057.5	7/29/2010	15:49	00117	1.12	-0.2	
7/29/2010	11:27	BPS1-SB3007-64.064.5	7/29/2010	15:50	00118	1.07	-0.35	
7/29/2010	11:31	BPS1-SB3007-67.568.0	7/29/2010	15:52	00119	1.4	0.56	
7/29/2010	11:36	BPS1-SB3007-72.573.0	7/29/2010	15:53	00120	1.29	0.25	
7/29/2010	11:41	BPS1-SB3007-77.077.5	7/29/2010	15:55	00121	1.34	0.41	
7/29/2010	10:48	BPS1-SB3007-52.052.5	7/29/2010	15:57	00122	1.33	0.38	
7/29/2010	12:44	BPS1-SB3007-82.583.0	7/29/2010	15:59	00123	1.35	0.41	
7/29/2010	12:49	BPS1-SB3007-87.087.5	7/29/2010	16:01	00124	1.42	0.62	
7/29/2010	12:54	BPS1-SB3007-90.090.5	7/29/2010	16:03	00125	1.34	0.39	
7/29/2010	12:58	BPS1-SB3007-96.597.0	7/29/2010	16:05	00126	1.81	1.7	
7/29/2010	13:42	BPS1-SB3007-116.116.5	7/30/2010	10:43	00127	1.66	1.28	
7/29/2010	13:24	BPS1-SB3007-100.0100.5	7/30/2010	10:45	00128	1.87	1.87	
7/29/2010	13:38	BPS1-SB3007-110.0110.5	7/30/2010	10:46	00129	1.26	0.16	
7/29/2010	13:34	BPS1-SB3007-106.0106.5	7/30/2010	10:48	00130	1.72	1.44	
7/29/2010	14:00	BPS1-SB3007-133.0133.5	7/30/2010	10:49	00131	1.75	1.52	
7/29/2010	14:11	BPS1-SB3007-120130	7/30/2010	10:51	00132	1.72	1.46	
7/29/2010	**15:12**	**BPS1-SB3007-130140**	**7/30/2010**	**10:54**	**00133**	**2.01**	**2.25**	
7/29/2010	15:19	BPS1-SB3007-140150	7/30/2010	10:55	00134	1.83	1.74	
7/29/2010	15:53	BPS1-SB3007-150160	7/30/2010	10:57	00135	1.82	1.72	
7/29/2010	16:00	BPS1-SB3007-160170	7/30/2010	13:05	00136	1.59	1.09	
7/29/2010	16:42	BPS1-SB3007-170180	7/30/2010	13:08	00137	1.49	0.83	
7/29/2010	16:50	BPS1-SB3007-180190	7/30/2010	13:09	00138	1.57	1.03	
7/29/2010	16:55	BPS1-SB3007-190198	7/30/2010	13:11	00139	1.63	1.19	
7/30/2010	8:50	BPS1-SB3007-217.5	7/30/2010	13:13	00140	1.56	0.99	
7/30/2010	9:00	BPS1-SB3007-200210	7/30/2010	13:14	00141	1.69	1.38	
7/30/2010	9:40	BPS1-SB3007-210220	7/30/2010	13:23	00142	1.91	1.98	
7/30/2010	9:47	BPS1-SB3007-220230	7/30/2010	13:24	00143	1.8	1.66	
7/30/2010	10:34	BPS1-SB3007-230240	7/30/2010	13:26	00144	1.65	1.24	

Appendix C
Field Test Kit Results
Site 1 - Former Drum Marshalling Area
NWIRP Bethpage, New York

SAMPLE DATE/TIME	SAMPLE TIME	SAMPLE ID	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS ID	CHLORIDE RESULT (mg/kg)	PCB RESULT AS PCB-1248 (mg/kg)	COMMENTS
7/30/2010	10:40	BPS1-SB3007-240250	7/30/2010	13:27	00145	1.67	1.32	
7/30/2010			7/31/2010		146-pblk			
7/30/2010	**9:40**	**BPS1-SB3009-08.025.0**	**7/31/2010**	**11:12**	**00147**	**819**	**2269**	
7/30/2010	**9:45**	**BPS1-SB3009-27.027.5**	**7/31/2010**	**11:17**	**00148**	**2.2**	**6.16**	
7/30/2010			7/31/2010		149-blk			
7/30/2010	10:05	BPS1-SB3009-30.030.5	7/31/2010	13:10	00150	2	1	
7/30/2010	**10:10**	**BPS1-SB3009-36.036.5**	**7/31/2010**	**13:13**	**00151**	**7.86**	**17.2**	
7/30/2010	10:33	BPS1-SB3009-41.041.5	7/31/2010	13:15	00152	2.14	1.41	
7/30/2010	10:38	BPS1-SB3009-46.046.5	7/31/2010	13:17	00153	1.88	0.69	
7/30/2010	11:02	BPS1-SB3009-51.051.5	7/31/2010	13:18	00154	1.89	0.71	
7/30/2010	11:15	BPS1-SB3009-56.056.5	7/31/2010	13:20	00155	1.77	0.37	
7/30/2010	12:19	BPS1-SB3009-62.062.5	7/31/2010	15:13	00156	1.49	-0.3	
7/30/2010	12;24	BPS1-SB3009-67.067.5	7/31/2010	15:14	00157	1.87	0.76	
7/30/2010	12:29	BPS1-SB3009-73.574.0	7/31/2010	15:16	00158	1.46	0.38	
7/30/2010	**12:35**	**BPS1-SB3009-77.077.5**	**7/31/2010**	**15:17**	**00159**	**2.4**	**2.23**	
7/30/2010	13:32	BPS1-SB3009-96.096.5	7/31/2010	16:55	00160	1.58	-0.02	
7/30/2010	13:41	BPS1-SB3009-86.587.0	7/31/2010	16:56	00161	1.31	-0.79	
7/30/2010	13:46	BPS1-SB3009-81.582.0	7/31/2010	16:57	00162	1.4	-0.53	
7/30/2010	13:50	BPS1-SB3009-90.591.0	7/31/2010	16:59	00163	1.84	0.69	
7/30/2010	14:03	BPS1-SB3009-101.0101.5	7/31/2010	17:01	00164	1.69	0.27	
7/30/2010	14:08	BPS1-SB3009-106.0106.5	7/31/2010	17:03	00165	1.64	0.11	
7/30/2010	14:18	BPS1-SB3009-113.5114	7/31/2010	17:04	00166	1.54	-0.14	
7/30/2010	14:23	BPS1-SB3009-117.0117.5	7/31/2010	17:05	00167	1.55	-0.11	
7/30/2010	14:38	BPS1-SB3009-120130	7/31/2010	17:07	00168	1.59	-0.01	
7/30/2010	15:15	BPS1-SB3009-140-140.5	8/1/2010	9:37	00170	1.8	-0.07	
7/30/2010	15:25	BPS1-SB3009-130140	8/1/2010	9:39	00171	1.97	0.38	
7/30/2010	15:30	BPS1-SB3009-140150	8/1/2010	9:41	00172	1.96	0.35	
7/30/2010	15:59	BPS1-SB3009-150160	8/1/2010	9:44	00173	1.82	-0.04	
7/30/2010	16:06	BPS1-SB3009-160170	8/1/2010	9:47	00174	2.41	1.59	
7/30/2010	17:00	BPS1-SB3009-170180	8/1/2010	9:49	00175	1.74	-0.25	
7/30/2010	17:05	BPS1-SB3009-180190	8/1/2010	9:51	00176	1.69	-0.4	
7/30/2010	17:10	BPS1-SB3009-190198	8/1/2010	9:52	00177	2.09	0.64	
8/1/2010	9:29	BPS1-SB3009-209.0209.5	8/1/2010	11:33	00178	2.22	1.18	
8/1/2010	9:40	BPS1-SB3009-200210	8/1/2010	11:35	00179	1.77	-0.07	
8/1/2010	9:41	BPS1-SB3009-213.0213.5	8/1/2010	11:37	00180	1.62	-0.47	
8/1/2010	10:25	BPS1-SB3009-210220	8/1/2010	12:30	00181	1.81	0.31	
8/1/2010	10:33	BPS1-SB3009-220230	8/1/2010	12:32	00182	1.81	0.3	
8/1/2010	11:17	BPS1-SB3009-230240	8/1/2010	12:33	00183	1.88	0.5	
8/1/2010	11:23	BPS1-SB3009-240250	8/1/2010	12:35	00184	1.55	-0.4	
8/2/2010	8:33	BPS1-SB3008-0.008.0	8/2/2010	11:31	00186	1.62	-0.87	
8/2/2010	**9:48**	**BPS1-SB3008-07.025.0**	**8/2/2010**	**11:32**	**00187**	**20.8**	**52.2**	
8/2/2010	9:53	BPS1-SB3008-27.027.5	8/2/2010	11:36	00188	2.3	1.0	
8/2/2010	10:08	BPS1-SB3008-34.034.5	8/2/2010	14:23	00189	1.59	-0.84	
8/2/2010	10:13	BPS1-SB3008-37.037.5	8/2/2010	14:24	00190	1.82	-0.21	
8/2/2010	10:28	BPS1-SB3008-41.041.5	8/2/2010	14:26	00191	1.47	-1.71	
8/2/2010	10:51	BPS1-SB3008-52.052.5	8/2/2010	14:27	00192	1.91	-0.05	
8/2/2010	10:55	BPS1-SB3008-57.057.5	8/2/2010	14:28	00193	1.78	-0.31	
8/2/2010	11:33	BPS1-SB3008-47.047.5	8/2/2010	14:29	00194	1.85	-0.31	
8/2/2010	11:48	BPS1-SB3008-64.064.5	8/2/2010	14:31	00195	1.73	-0.45	
8/2/2010	11:52	BPS1-SB3008-67.568.0	8/2/2010	14:32	00196	2.02	0.35	
8/2/2010	11:56	BPS1-SB3008-73.073.5	8/2/2010	14:33	00197	2.02	0.35	

Appendix C
Field Test Kit Results
Site 1 - Former Drum Marshalling Area
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SAMPLE DATE/TIME	SAMPLE TIME	SAMPLE ID	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS ID	CHLORIDE RESULT (mg/kg)	PCB RESULT AS PCB-1248 (mg/kg)	COMMENTS
8/2/2010	12:01	BPS1-SB3008-77.077.5	8/2/2010	14:34	00198	1.98	0.23	
8/2/2010	12:58	BPS1-SB3008-86.587.0	8/2/2010	16:48	00199	1.62	-0.48	
8/2/2010	13:06	BPS1-SB3008-83.083.5	8/2/2010	16:50	00200	1.76	-0.09	
8/2/2010	13:10	BPS1-SB3008-91.592.0	8/2/2010	16:51	00201	1.73	-0.19	
8/2/2010	13:14	BPS1-SB3008-97.097.5	8/2/2010	16:53	00202	1.74	-0.13	
8/2/2010	13:28	BPS1-SB3008-103.5104.0	8/2/2010	16:55	00203	2.05	0.7	
8/2/2010	13:32	BPS1-SB3008-107.0107.5	8/3/2010	13:14	00204	1.44	-0.71	
8/2/2010	13:37	BPS1-SB3008-11.5112.0	8/3/2010	13:15	00205	1.338	-0.86	
8/2/2010	13:42	BPS1-SB3008-116.5117.0	8/3/2010	13:16	00206	1.55	-0.41	
8/2/2010	14:03	BPS1-SB3008-120130	8/3/2010	13:18	00207	1.24	-1.24	
8/2/2010	14:44	BPS1-SB3008-130140	8/3/2010	13:19	00208	1.65	-0.11	
8/2/2010	14:50	BPS1-SB3008-140150	8/3/2010	13:20	00209	1.56	-0.37	
8/2/2010	15:42	BPS1-SB3008-161.0161.5	8/3/2010	13:22	00210	1.79	0.26	
8/2/2010	15:49	BPS1-SB3008-150160	8/3/2010	13:24	00211	1.59	-0.29	
8/2/2010	16:25	BPS1-SB3008-160170	8/3/2010	13:25	00212	1.63	-0.16	
8/2/2010	16:31	BPS1-SB3008-170180	8/3/2010	13:26	00213	1.83	0.36	
8/2/2010	16:36	BPS1-SB3008-180190	8/3/2010	13:28	00214	1.64	-0.16	
8/2/2010	8:51	BPS1-SB3008-190198	8/3/2010	13:29	00215	1.74	0.13	
8/3/2010	9:40	BPS1-SB3008-200210	8/3/2010	14:19	00216	5.72	11.11	Positive results was due to contamination.
8/3/2010	9:40	BPS1-SB3008-234.5235.0	8/3/2010	14:20	00217	1.71	0.05	
8/3/2010	9:50	BPS1-SB3008-210220	8/3/2010	14:21	00218	1.6	-0.25	
8/3/2010	9:57	BPS1-SB3008-220230	8/3/2010	14:24	00219	1.79	0.27	
8/3/2010	10:03	BPS1-SB3008-230238	8/3/2010	14:25	00220	1.92	0.62	
8/3/2010	9:40	BPS1-SB3008-200210	8/3/2010	15:10	00221	1.89	0.53	re-extraction of sample BPS1-SB3008-200210
8/9/2010	9:53	BPS1-SB3012-0008	8/9/2010	12:37	222	2.04	1.5 (5.67)*	No Blank
-	-	Prep Blank	8/9/2010	13:56	225	-	-	Blank = 2.7
8/9/2010	10:27	BPS1-SB3012-0818	8/9/2010	13:58	223	2.25	2.08 (-1.32)*	Blank = 2.7
8/9/2010	10:38	BPS1-SB3012-1828	8/9/2010	13:59	224	2.46	2.66 (-0.75)*	Blank = 2.7
8/9/2010	10:58	BPS1-SB3012-2838	8/9/2010	15:49	226	2.34	2.58 (6.49)*	No Blank
8/9/2010	11:16	BPS1-SB3012-3848	8/9/2010	15:53	227	2.23	2.02 (6.20)*	No Blank
8/10/2010	17:12	BPS1-SB3012-4858	8/11/2010	9:31	228	5.85	12.00	Blank=1.5
8/10/2010	17:18	BPS1-SB3012-5868	8/11/2010	9:37	229	7.58	16.80	Blank=1.5
8/11/2010	8:57	BPS1-SB3012-6878	8/11/2010	11:30	230	1.93	1.20	Blank=1.5
8/11/2010	9:02	BPS1-SB3012-7888	8/11/2010	11:34	231	1.78	0.79	Blank=1.5
8/11/2010	10:17	BPS1-SB3012-8898	8/11/2010	11:38	232	1.62	0.35	Blank=1.5
8/11/2010	15:56	BPS1-SB3012-108118	8/11/2010	16:49	233	2.13	1.75	Blank=1.5
8/11/2010		BPS1-SB3012-112.5113.0			--	--	--	Analytical collected at smaller interval
8/11/2010	15:15	BPS1-SB3012-98108	8/11/2010	16:53	234	2.20	1.96	Blank=1.5
8/13/2010	8:32	BPS1-SB3012-128138	8/13/2010	9:07	235	2.39	2.48	Blank=1.5
8/13/2010	9:57	BPS1-SB3012-138148	8/13/2010	10:30	236	2.33	2.31	Blank=1.5
8/13/2010	15:48	BPS1-SB3012-148158	8/13/2010	17:50	237	2.00	1.39	Blank=1.5
8/13/2010	16:17	BPS1-SB3012-158168	8/13/2010	17:53	238	1.99	1.36	Blank=1.5
8/13/2010	16:22	BPS1-SB3012-168178	8/13/2010	17:54	239	2.10	1.68	Blank=1.5
8/13/2010	17:09	BPS1-SB3012-178198	8/13/2010	8:41	240	1.90	1.12	Blank=1.5
8/14/2010	9:15	BPS1-SB3012-198208	8/13/2010	9:57	241	2.07	1.77 [1.59]	Blank=1.5, only ~4.5 mL extracted 1.59*5/4.5 = 1.77
8/14/2010		BPS1-SB3012-203.0203.5			--	--	--	Analytical collected at smaller interval
8/15/2010	10:50	BPS1-SB3010-0008	8/15/2010	15:34	242	2.60	3.05	Blank=1.5
8/15/2010	11:46	BPS1-SB3010-0818	8/15/2010	15:37	243	1.70	0.56	Blank=1.5
8/15/2010	12:11	BPS1-SB3010-1828	8/15/2010	15:39	244	1.75	0.71	Blank=1.5
8/15/2010	13:10	BPS1-SB3010-2838	8/15/2010	15:41	245	2.05	1.54	Blank=1.5

Appendix C
Field Test Kit Results
Site 1 - Former Drum Marshalling Area
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SAMPLE DATE/TIME	SAMPLE TIME	SAMPLE ID	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS ID	CHLORIDE RESULT (mg/kg)	PCB RESULT AS PCB-1248 (mg/kg)	COMMENTS
8/15/2010	13:32	BPS1-SB3010-3848	8/15/2010	15:42	246	1.58	0.24	Blank=1.5
8/15/2010	13:45	BPS1-SB3010-4858	8/15/2010	15:43	247	1.99	1.36	Blank=1.5
8/15/2010		BPS1-SB3010-49.049.5			--	--	--	Analytical collected at smaller interval
8/16/2010	9:02	BPS1-SB3010-5868	8/16/2010	9:50	248	2.25	2.08	Blank=1.5
8/16/2010	9:07	BPS1-SB3010-6878	8/16/2010	9:53	249	1.97	1.31	Blank=1.5
8/16/2010	10:15	BPS1-SB3010-7888	8/16/2010	12:18	250	2.02	1.44	Blank=1.5
8/16/2010	10:20	BPS1-SB3010-8898	8/16/2010	12:20	251	2.06	1.56	Blank=1.5
8/16/2010		BPS1-SB3010-93.594.0			--	--	--	Analytical collected at smaller interval
8/16/2010	10:24	BPS1-SB3010-98108	8/16/2010	12:24	252	1.90	1.12	Blank=1.5
8/16/2010	11:00	BPS1-SB3010-108118	8/16/2010	12:25	253	1.77	0.75	Blank=1.5
8/16/2010	15:02	BPS1-SB3010-118148	8/16/2010	15:38	254	1.97	1.32	Blank=1.5
8/17/2010	11:33	BPS1-SB3010-148168	8/17/2010	12:18	255	1.94	1.22	Blank=1.5
8/17/2010	12:48	BPS1-SB3010-168198	8/17/2010	13:21	256	1.80	0.84	Blank=1.5
8/17/2010		BPS1-SB3010-188.0188.5	8/17/2010		--	--	--	Analytical collected at smaller interval
8/18/2010	12:39	BPS1-SB3011-0008	8/18/2010	13:34	257	1.97	1.30	Blank=1.5
8/18/2010	12:54	BPS1-SB3011- 0818	8/18/2010	13:35	258	1.37	-0.33	Blank=1.5
8/18/2010	13:08	BPS1-SB3011- 1828	8/18/2010	14:28	259	2.14	1.80	Blank=1.5
8/18/2010	13:26	BPS1-SB3011- 2838	8/18/2010	14:30	260	1.65	0.43	Blank=1.5
8/18/2010	13:35	BPS1-SB3011- 3848	8/18/2010	14:34	261	2.08	1.62	Blank=1.5
8/18/2010	13:56	BPS1-SB3011- 4858	8/18/2010	14:35	262	2.03	1.47	Blank=1.5
8/18/2010		BPS1-SB3011-48.549.0	8/18/2010		--	--	--	Analytical collected at smaller interval
* - After a conversation with Joe Kalinyak on 8/11/2010 it was decided that the blank of 2.7 was too high and a blank that was the average of the last two shifts (1.7 and 1.2) should be used. The PCB								

APPENDIX D

CHAIN OF CUSTODY FORMS AND ANALYTICAL RESULTS

Chain of Custody Forms

Cert 6

TETRA TECH NUS, INC. 11-2 488 White TM 2318 | CHAIN OF CUSTODY NUMBER 27285 | PAGE 1 OF 1

PROJECT NO: 112602230	FACILITY: NWIRP Bethpage	PROJECT MANAGER Robert Sok	PHONE NUMBER (757) 618-2104	LABORATORY NAME AND CONTACT: Tri Matrix (Walt) Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER Vince Shickara	PHONE NUMBER (610) 909-3264	ADDRESS 5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER FED EX / 8671-2882-9638		CITY, STATE Grand Rapids, MI 49512

1007174

STANDARD TAT ☒ RUSH TAT ☒ → ☆
☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)									
										G	P	G	G	G					
										PRESERVATIVE USED		NA	NA	NA	methanol	NA			
										TYPE OF ANALYSIS		PCB (24hr TAT) ☆	% solids	PCB/DRO	VOC/GRO	TOC		TEST GROUP	Field Screen (ppm)
01	7/13	1656	BPS1-SB3004-27.5-28	—	27.5	28	SO	G	2	1	1							01	
02	7/14	0822	BPS1-SB3004-34-34.5	—	34	34.5	SO	G	2	1	1							01	
03	7/14	0825	BPS1-SB3004-37-37.5	—	37	37.5	SO	G	2	1	1							01	
04	7/14	0841	BPS1-SB3004-42-42.5	—	42	42.5	SO	G	2	1	1							01	
05	7/14	0845	BPS1-SB-3004-47-47.5	—	47	47.5	SO	G	2	1	1							01	
06	7/14	0914	BPS1-SB3004-49-49.5	—	49	49.5	SO	G	2	1	1							01	
07	7/14	0919	BPS1-SB3004-54-54.5	—	54	54.5	SO	G	3			1	1	1				04	
08	7/14	1117	BPS1-SB3004-64.5-65	—	64.5	65	SO	G	3			1	1	1				04	
09	7/14	0800	BPS1-TB01	—	—	—	QC		1				1					07	
10	7/14	1556	BPS1-SB3004-154-154.5	—	154	154.5	SO	G	3			1	1	1				04	

☆ = Quick 24hr TAT

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	7/14/10	1700	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	7/15/10	0845

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E 1007222 15-1

TETRA TECH NUS, INC. Cart 3 TM2058 499W | CHAIN OF CUSTODY NUMBER 0478 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Robert Sok	(757) 618-2104	Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	(610) 909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		FedEx		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☒ on sample w/*
☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	P	G	G	G	G	G		
										PRESERVATIVE USED	NA	NA	MeOH	NA	MeOH	NA	NA		
										TYPE OF ANALYSIS	PCB	% TS	VOC/GRO (Trip Blank)	PCB/DRO	VOC/GRO	TOC % TS	PCB (24 hr TAT)*	TEST GROUP	COMMENTS
01	7-14	1317	BPSI-SB3004-116.0116.5	—	116.0	116.5	SO	G	2		1	1						08	
02	7-14	1740	BPSI-SB3004-180190	—	180	190	SO	C	2		1	1						08	
03	7-15	0815	TB-20100715	—	—	—	QC	—	1				1					07	
04	7-15	1132	BPSI-SB3004-235.0235.5	—	235.0	235.5	SO	G	2		~~1~~ JBG-1610	~~1~~		1	1	1		04	
05	7-16	1051	BPSI-SB3005-27.528.0	—	27.5	28.0	SO	G	2		~~1~~ MB	1					1*	01	24 hr Quick TAT
06	7-16	1115	BPSI-SB3005-37.538.0	—	37.5	38.0	SO	G	3					1	1	1		04	
07	7-16	1125	BPSI-SB3005-34.034.5	—	34.0	34.5	SO	G	2			1					1*	01	24 hr Quick TAT
08	7-16	1201	BPSI-SB3005-54.555.0	—	54.5	55.0	SO	G	3					1	1	1		04	
09	7-16	1216	BPSI-SB3005-43.043.5	—	43.0	43.5	SO	G	2			1					1*	01	24 hr Quick TAT
10	7-16	1216	BPSI-SB3005-49.049.5	—	49.0	49.5	SO	G	2			1					1*	01	↓
11	7-16	1227	BPSI-SB3005-57.558.0	—	57.5	58.0	SO	G	2			1					1*	01	

1. RELINQUISHED BY Jacob Birkett	DATE 7-16-10	TIME 1900	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 7/17/10	TIME 0850

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

227068

597G & 521R, Cart 2

TETRA TECH NUS, INC. 19.8 CHAIN OF CUSTODY 1007235 NUMBER 27289 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Robert Sok	(757) 618-2104	Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Vince Shickora	(610) 909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)										TEST GROUP
										PRESERVATIVE USED	MeOH	NA	NA	NA	NA	HCl	H_2SO_4	HCl		
										TYPE OF ANALYSIS	VOC/GRO	PCB and %TS	PCB and DRO	TOC and %TS	Non-purgeable Organics	Preserved Purgeable Organics	TOC	DRO	COMMENTS	
01	7-17	0745	TB-20100717	—			QC	—	1		1								10mL MeOH	07
02	7-16	1455	BPS1-SB3005-94.595.0	—	94.5	95.0	SO	G	1			1								08
03	7-17	0849	BPS1-SB3005-145.0145.5	—	145.0	145.5	SO	G	3		1		1	1						04
04	7-17	1036	BPS1-SB3005-180190	—	180	190	SO	C	1			1								08
05	7-17	1217	BPS1-SB3005-232.5233.0	—	232.5	233.0	SO	G	5		2		2	1					Run MSMD	06
06	7-17	1200	BPS1-Dup01-20100717	—	—	—	SO	—	3		1		1	1						05
07	7-19	1130	Rb-20100719	—	—	—	QC	—	10		14 JB				2	4	2	2		09
08	7-19	1145	Rb-20100719	—	—	—	QC	—	10		4 JB				2	4	2	2	See NIC Form (CWR)	10

1. RELINQUISHED BY Jacob Birkett	DATE 7-19-10	TIME 1400	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 7/20/10	TIME 0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | **CHAIN OF CUSTODY** | **NUMBER** 2619 Cart 1 112B | **PAGE** 1 **OF** 1 35:10

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		FedEx 8671-2882-9487		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)										
									PRESERVATIVE USED	Methanol	NA	NA	NA						
									TYPE OF ANALYSIS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS		TEST 6+20+P			E-1007438 COMMENTS	
7-27	0745	BPSI-TB-20100727	—	—	—	QC	—	1		1						07			10mL MeOH -01
7-27	1045	BPSI-SB3006-53.053.5	—	53.0	53.5	SO	G	3		1	1	1				04			-02
7-27	1453	BPSI-SB3006-117.0117.5	—	117.0	117.5	SO	G	3		1	1	1				04			-03
7-28	0843	BPSI-SB3006-181.0181.5	—	181.0	181.5	SO	G	3		1	1	1				04			-04
7-28	1038	BPSI-SB3006-226.52270	—	226.5	227.0	SO	G	3		1	1	1				04			-05
7-27	0946	BPSI-SB3006-32.032.5	—	32.0	32.5	SO	G	1					1			08			-06
7-27	1242	BPSI-SB3006-72.072.5	—	72.0	72.5	SO	G	1					1			08			-07
7-27	1200	BPSI-Dup03-20100727	—	—	—	SO	G	1					1			11			-08
7-28	1200	BPSI-Dup02-20100728	—	—	—	SO	G	3		1	1	1				05			-09

1. RELINQUISHED BY Jacob Birkett	DATE 7-28-10	TIME 1400	1. RECEIVED BY FedEx	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 7/29/10	TIME 0930

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E·1009011

7360w, Cart 8

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2620 | PAGE 1 OF 1 — 39-2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		FedEx 8671-2882-9524		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)									
										PRESERVATIVE USED	Methanol	NA	NA	NA					
										TYPE OF ANALYSIS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS		TEST GROUP			COMMENTS
01	7-29	0840	BPSI-TB04-20160729	—	—	—	QC	-	1		1						07			10 mL MeOH
02	7-29	0952	BPSI-SB3007-37.538.0	—	37.5	38.0	SO	G	3		1	1	1				04			
03	7-29	1037	BPSI-SB3007-57.057.5	—	57.0	57.5	SO	G	3		1	1	1				04			
04	7-29	1324	BPSI-SB3007-100.0100.5	-	100.0	100.5	SO	G	3		1	1	1				04			
05	7-30	0850	BPSI-SB3007-217.5218.0	—	217.5	218.0	SO	G	3		1	1	1				04			
06	7-29	1519	BPSI-SB3007-140150	-	140	150	SO	C	1					1			12			Run MSMSD on PCB
07	7-30	1040	BPSI-SB3007-240-250	-	240	250	SO	C	1					1			08			

1. RELINQUISHED BY Jacob Birkett	DATE 7-30-10	TIME 1400	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 7/31/10	TIME 0845

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

2408(soil) 5896(wtr) Cart 2

TETRA TECH NUS, INC. | **CHAIN OF CUSTODY** | **NUMBER** 2621 | **PAGE** 1 OF 1 — 45-6

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
1008025		FedEx 8671 2882 9605		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE (YEAR 2010)	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)										
										PRESERVATIVE USED	Methanol	NA	NA	NA	NA	H_2SO_4	HCl	HCl		
										TYPE OF ANALYSIS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS	SVOC PCB	TOC	DRO	VOC and GRO		COMMENTS
01	7-31	0820	BPSI-TB05-20100731	—	—	—	QC	—	1		1									10 mL MeOH
02	7-31	0945	BPSI-SB3009-27.027.5	—	27.0	27.5	SO	G	1					1						
03	7-31	1010	BPSI-SB3009-36.036.5	—	36.0	36.5	SO	G	1					1						
04	7-31	1102	BPSI-SB3009-51.051.5	—	51.0	51.5	SO	G	3		1	1	1							
05	7-31	1332	BPSI-SB3009-96.096.5	—	96.0	96.5	SO	G	3		1	1	1							
06	7-31	1515	BPSI-SB3009-140.0140.5	—	140.0	140.5	SO	G	3		1	1	1							
07	8-1	0929	BPSI-SB3009-209.0209.5	—	209.0	209.5	SO	G	3		1	1	1							
08	7-31	1200	BPSI-Dup04-20100731	—	—	—	SO	G	3		1	1	1							
09	8-2	0900	RB-20100802	—	—	—	QC	—	10		1 JB					2	2	2	4	
10	8-2	1051	BPSI-SB3008-52.052.5	—	52.0	52.5	SO	G	3		1	1	1							
11	8-2	1258	BPSI-SB3008-86.587.0	—	86.5	87.0	SO	G	3		1	1	1							
12	8-2	1535	BPSI-SB3008-161.0161.5	—	161.0	161.5	SO	G	3		1	1	1							

TEST GROUP: 07, 08, 08, 04, 04, 04, 04, 05, 09, 04, 04, 04

1. RELINQUISHED BY: Jacob Birkett	DATE: 8-2-10	TIME: 1830	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY: Wm Cole	DATE: 8/3/10	TIME: 0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Cart 6, 252G

TETRA TECH NUS, INC. | **CHAIN OF CUSTODY** | **NUMBER** 2622 E1008057 | **PAGE** 1 OF 1 47 6

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		Fed Ex 8671-2882-9590		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)										COMMENTS
									PRESERVATIVE USED	Methanol	G	G	G	G					
									TYPE OF ANALYSIS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS		TEST GROUP				
8-2	0820	BPSI-TB06-20100802	—	—	—	QC	—	1		1						07			-01
8-3	0940	BPSI-SB3008-234.5-235.0	—	234.5	235.0	SO	G	3		1	1	1				04			-02
8-2	1013	BPSI-SB3008-37.0-37.5	—	37.0	37.5	SO	G	1					1			08			-03
~~8-2~~	~~1328~~	~~BPSI-SB3008-103.5-104.0~~	~~—~~	~~103.5~~	~~104.0~~	~~SO~~	~~G~~	~~1~~			JB 8-3-10		~~1~~						Removed
8-3	0851	BPSI-SB3008-200-210	—	200	210	SO	C	1					1			08			-04

1. RELINQUISHED BY Jacob Birkett	DATE 8-3-10	TIME 1600	1. RECEIVED BY	DATE	TIME		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME		
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY Wm Cole	DATE 8/4/10	TIME 0820		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E 1008187

0466, 252G Cart 7

TETRA TECH NUS, INC. | **CHAIN OF CUSTODY** | **NUMBER** 2623 | **PAGE** 1 OF 1 | 11-4

PROJECT NO: 112G02230	**FACILITY:** NWIRP Bethpage	**PROJECT MANAGER** Rob Sok	**PHONE NUMBER** 757-618-2104	**LABORATORY NAME AND CONTACT:** TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE) Jacob Birkett		**FIELD OPERATIONS LEADER** Jennifer Lambert	**PHONE NUMBER** 610-909-1893	**ADDRESS** 5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER FedEx 8671 2882 9579		**CITY, STATE** Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐ ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS	VOC	PCB	DRO	TOC	COMMENTS	TEST GROUP
	CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	G	G	G	G	G	G		
	PRESERVATIVE USED									MeOH	NA	NA	NA	HCl	NA	NA	NA		
01	7-27	0800	BPSI-GWTB01-20100727	—	—	—	QC	—	2					2				Lab Prepared	13
02	8-9	0930	BPSI-TB07-20100809	—	—	—	QC	—	1	1								10 mL Methanol	07
03	8-9	1130	BPSI-SB3012-39.039.5	—	39.0	39.5	SO	G	3	1						1	1		16
04	8-10	1602	BPSI-GW3012-4852	—	48	52	GW	G	5					3	2				14
05	8-11	0720	BPSI-AQIDW01-20100811	—	—	—	GW	—	2						2			Sample of Frac tank SB3004 SB3009	15
06	8-11	1535	BPSI-SB3012-112.5113.0	—	112.5	113.0	SO	G	3	1	1	1							04
07	8-10	1718	BPSI-SB3012-5868	—	58	68	SO	C	1				1						08
08	8-11	1200	BPSI-Dup05-20100811	—	—	—	SO	G	3	1	1	1							05
																			17

1. RELINQUISHED BY Jacob Birkett	DATE 8-11-10	TIME	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 8/12/10	TIME 0900

COMMENTS: Aqueous TB 'collection' date changed to that of first GW collected (WM) or 8-10-10.

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R

FORM NO. TtNUS-001

E-1008223 TM23560 161B Cart 3
15-3

TETRA TECH NUS, INC. **CHAIN OF CUSTODY** | **NUMBER** 2624 | **PAGE** 1 **OF** 1

PROJECT NO: 112G02230	**FACILITY:** NWIRP Bethpage	**PROJECT MANAGER** Rob Sak	**PHONE NUMBER** 757-618-2104	**LABORATORY NAME AND CONTACT:** Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE) Jacob Birkett		**FIELD OPERATIONS LEADER** Jennifer Lambert	**PHONE NUMBER** 610-909-1893	**ADDRESS** 5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER Fed Ex 8641-3687-5365		**CITY, STATE** Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)									PRESERVATIVE USED									TYPE OF ANALYSIS									COMMENTS
										G	G								HCl	—								VOC	PCB			TEGROUP					
-01	7-27	0800	BPS1-GWTB02-20100727	—	—	—	QC	—	2	2				13																							Lab prepared
-02	8-12	1530	BPS1-GW3012-110114	—	110	114	GW	G	5	3	2			14																							
-03	8-13	1358	BPS1-GW3012-144148	—	144	148	GW	G	13	7	6			18																							Run MS MSD

1. RELINQUISHED BY Jacob Birkett	DATE 8-13-10	TIME 1730	1. RECEIVED BY FedEx	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 8/14/10	TIME 0910

COMMENTS Change Trip Blank 'collection' date to 08/12/10 (WR)

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27286 | Cart 8, 6556(soils) 5776(waters) | PAGE 1 OF 1 | 21-8

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Jennifer Lambert	610-909-1893	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
1008243		FedEx 8671-2882-9009		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)								TEST GROUP	COMMENTS
										G	G	G	G	G	G				
										MeOH	NA	NA	NA	HCl	NA				
										PRESERVATIVE USED									
										TYPE OF ANALYSIS									
										VOC+GRO	PCB+DRO	TOC+%TS	PCB+%TS	VOC	PCB				
01	8-14	0744	BPSI-TB08-20100814	—	—	—	QC	-	1	1								07	
02	8-14	0800	BPSI-GWTB03-20100814	—	—	—	QC	—	2					2				13	Lab prepared
03	8-14	0905	BPSI-SB3012-203.0203.5	—	203.0	203.5	SO	G	3	1	1	1						04	
04	8-14	1315	BPSI-GW3012-200204	-	200	204	GW	G	5					3	2			14	
05	8-10	1712	BPSI-SB3012-4858	-	48	58	SO	C	1				1					08	
06	8-13	1617	BPSI-SB3012-158168	-	158	168	SO	C	1				1					08	
07	8-15	0810	BPSI-RB03-20100815	—	-	-	QC	-	5					3	2			19	
08	8-15	1342	BPSI-SB3010-49.049.5	-	49.0	49.5	SO	G	3	1	1	1						04	
09	8-16	0752	BPSI-GW3010-5761	-	57	61	GW	G	5					3	2			14	
10	8-16	0941	BPSI-SB3010-93.5940	-	93.5	94.0	SO	G	5	2	2	1						06	Run MSMSD
11	8-16	1232	BPSI-GW3010-114118	-	114	118	GW	G	5					3	2			14	

1. RELINQUISHED BY Jacob Birkett	DATE 8-16-10	TIME 1830	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 8/17/10	TIME 0845
COMMENTS					

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

E 10088308 25-5 Cart Inorganic 715 MeOH-W 182 WTR-B

TETRA TECH NUS, INC. **CHAIN OF CUSTODY** | **NUMBER** 2639 | **PAGE** 1 OF 2

PROJECT NO: 112G02230	**FACILITY:** NWIRP Bethpage	**PROJECT MANAGER** Rob Sok	**PHONE NUMBER** 757-618-2104	**LABORATORY NAME AND CONTACT:** TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE) Jacob Birkett		**FIELD OPERATIONS LEADER** Jennifer Lambert	**PHONE NUMBER** 610-909-1893	**ADDRESS** 5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER FedEx 8671-2882-9546		**CITY, STATE** Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)								
										PRESERVATIVE USED			HCl	NA	MeOH	NA	NA	NA
										TYPE OF ANALYSIS	VOC	PCB	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS	TEST GROUP	COMMENTS
01	8-17	0738	BPSI-TB09-20100817	—	—	—	QC	—	1			1					07	
02	8-17	0759	BPSI-GW3010-144148	—	144	148	GW	G	5	3	2						14	
03	8-17	0800	BPSI-GWTB04-20100817	—	—	—	QC	—	2	2							13	Lab prepared
04	8-17	1245	BPSI-SB3010-188.0188.5	—	188.0	188.5	SO	G	3			1	1	1			04	
05	8-17	1734	BPSI-GW SB3010-196200	—	196	200	GW	G	5	3	2						14	
06	8-17	1200	BPSI-GWDup01-20100817	—	—	—	GW	G	5	3	2						19	
07	8-15	1050	BPSI-SB3010-0008	—	0	8	SO	C	1						1		08	
08	8-16	0902	BPSI-SB3010-5868	—	58	68	SO	C	1						1		08	
09	8-16	1502	BPSI-SB3010-118148	—	118	148	SO	C	1						1		08	
10	8-18	0922	BPSI-FB02-20100818	—	—	—	QC	—	5	3	2						20	Field Blank of Pink (dyed) drilling water
11	8-18	1308	BPSI-SB3011-1828	—	18	28	SO	C	1						1		08	
12	8-18	1335	BPSI-SB3011-3848	—	38	48	SO	C	1						1		08	
13	8-18	1350	BPSI-SB3011-48.549.0	—	48.5	49.0	SO	G	3			1	1	1			04	

1. RELINQUISHED BY Jacob Birkett	DATE 8-18-10	TIME 1630	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 8/19/10	TIME 0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

00824

E 1008310 256 Cart Inorganic

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 27284 | PAGE 2 OF 2

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage	PROJECT MANAGER Rob Sak	PHONE NUMBER 757-618-2104	LABORATORY NAME AND CONTACT: TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE) Jacob Birkett		FIELD OPERATIONS LEADER Jennifer Lambert	PHONE NUMBER 610-909-1893	ADDRESS 5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER Fed Ex 8671-2882-9546		CITY, STATE Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: TCLP VOC	TCLP SVOC/Pest/Herb	PCB %TS	TCLP Metals	Ignitability, Reactivity, Corrosivity	TEST GROUPS	COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	G	P	P		
PRESERVATIVE USED										NA	NA	NA	NA	NA		
01 02	8-18	1140	BPSI-DrumIDW-01-20100818	—	—	—	SO	C	5	1	1	1	1	1	21 08	Composite of 5 drums

1. RELINQUISHED BY Jacob Birkett		DATE 8-18-10	TIME	1. RECEIVED BY		DATE	TIME
2. RELINQUISHED BY		DATE	TIME	2. RECEIVED BY		DATE	TIME
3. RELINQUISHED BY		DATE	TIME	3. RECEIVED BY		DATE 8/19/10	TIME 0900
COMMENTS							

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

00031

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2636 | PAGE 1 OF 1

1037, 1960 Cart 6

27-2

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage	PROJECT MANAGER Rob Sok	PHONE NUMBER 757-618-2104	LABORATORY NAME AND CONTACT: TriMatrix - Walt Rodenbush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER Jennifer Lambert	PHONE NUMBER 610-909-1893	ADDRESS 5560 Corporate Exchange CT, SE
1008330		CARRIER/WAYBILL NUMBER FedEx - 8682-8224-1610		CITY, STATE Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)									COMMENTS
PRESERVATIVE USED										HCl	HCl	H_2SO_4	Ice only					
TYPE OF ANALYSIS										VOC + GRO	DRO	TOC	PCB			TEST GROUP		
8-18	1205	BPS1-TB10-20100818	—	—	—	QC	G	2	2	—	—	—				~~04~~	13	NO GRO per client (WM)
8-18	1700	BPS1-RB04-20100818	—	—	—	QC	G	10	4	2	2	2				09		

1. RELINQUISHED BY		DATE 8/19/10	TIME 1030	1. RECEIVED BY		DATE	TIME
2. RELINQUISHED BY		DATE	TIME	2. RECEIVED BY		DATE	TIME
3. RELINQUISHED BY		DATE	TIME	3. RECEIVED BY		DATE 8/20/10	TIME 0830
COMMENTS							

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2658 | PAGE 1 OF 1

PROJECT NO: 112G02230	FACILITY: Bethpage	PROJECT MANAGER Rob Sok	PHONE NUMBER 757-466-4904	LABORATORY NAME AND CONTACT: Tri Matrix Laboratories, Inc.
SAMPLERS (SIGNATURE) Gordon Araujo		FIELD OPERATIONS LEADER Vince Shickora	PHONE NUMBER 810-491-9688	ADDRESS 5560 Corporate Exchange Ct, SE
		CARRIER/WAYBILL NUMBER FedEx 8706-9629-2497		CITY, STATE Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)									COMMENTS
									G	G								
									HCl									
									1									
		44-A 476 W Cart 1 1008435							TYPE OF ANALYSIS VOC	PCBs								
8/26	1645	BPS1-TB-20100826	Site1	—	—	QC	G	3	3									
8/26	1750	BPS1-TW3011-20100826	Site1	—	—	GW	G	5	3	2								

1. RELINQUISHED BY	DATE 8/27/10	TIME 1300	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 8/28/10	TIME 1115

COMMENTS

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FORM NO. TtNUS-001

00011

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2629 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		Fed Ex 8706-9629-3677		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS: TCLP VOC	TCLP SVOC/Pest/Herb	PCB, %TS	TCLP Metals	Ignitability, Reactivity, Cor.	TEST GROUPS	COMMENTS
		35.4 Cart 7 3 Vol. Fridge E:1010540							G G G P P	- - - - -							
10-25-2010	1120	BPS1-IDWSoil-20101025	—	—	—	SO	C	5			1	1	1	1	1	21 08	

01
(3) 02

1. RELINQUISHED BY Jacob Birkett	DATE 10-25-10	TIME	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY Wm Cole	DATE 10/26/10	TIME 0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

01888

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2633 4311 | PAGE 1 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sak	757-466 4904	TriMatrix Walt Roudebush 616-975-4501
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
		Vince Shickora	610 491-9688	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		FedEx 8706 9629 3508		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)					PRESERVATIVE USED					COMMENTS
			E-1012046							G	G				—	HCl	—			
										TYPE OF ANALYSIS										
										VOC	2C3									
										TEST GROUP										
01	11-29	1100	BPSI-TB01-20101129	—	—	—	QC	G	2	2				13						Lab prepared
02	11-29	1230	BPSI-MW302D-20101129	—	—	—	GW	G	5	3	2			14						
03	11-29	1320	BPSI-TT-MW303D-20101129	—	—	—	GW	G	5	3	2			14						
04	11-29	1520	BPSI-MW302I2-20101129	—	—	—	GW	G	5	3	2			14						
05	11-29	1523	BPSI-TT-MW303I2-20101129	—	—	—	GW	G	5	3	2			14						
06	11-30	0845	BPSI-MW302I1-20101130	—	—	—	GW	G	5	3	2			14						
07	11-30	0943	BPSI-TT-MW303I1-20101130	—	—	—	GW	G	5	3	2			14						
08	11-30	1020	BPSI-MW302S-20101130	—	—	—	GW	G	15	9	6			17						Run MS/MSD
09	11-30	1133	BPSI-TT-MW303S-20101130	—	—	—	GW	G	5	3	2			14						
10	11-30	1200	BPSI-Dup01-20101130	—	—	—	GW	G	5	3	2			19						
11	11-30	1230	BPSI-FW-MW01-20101130	—	—	—	GW	G	5	3	2			14						
12	11-30	1347	BPSI-TT-MW304D-20101130	—	—	—	GW	G	5	3	2			14						
13	11-30	1415	BPSI-FW-MW02-20101130	—	—	—	GW	G	5	3	2			14						

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	12-1-10	1300	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	12/2/10	0915

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

0000212

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27288 | PAGE 2 OF 2

PROJECT NO: 126O2230	FACILITY: NWIRP Bethpage	PROJECT MANAGER Rob Sak	PHONE NUMBER 757-466-4907
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER Vince Shickora	PHONE NUMBER 616-491-9688
		CARRIER/WAYBILL NUMBER FedEx 8706 9629 3508	LABORATORY NAME AND CONTACT: TriMatrix Walt Roudebush 616-975-4561
			ADDRESS 5560 Corporate Exchange CT, SE
			CITY, STATE Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)												PRESERVATIVE USED												TYPE OF ANALYSIS												COMMENTS	TEST GROUP
			E 1012046							G	G	G	P	P	P	G	G	G	a.	a.	HCl	—	—	HNO3	—	—	—	—	—	—	VOC	PCB	SVOC	Metals (Pb)	TSS (PH)	Hexavalent Chromium	TCLP VOC	TCLP SVOC/Pest/Herb	PCB + %D TS	TCLP Metals	Ignit, Reac, Corr.		
14	11-30	1517	BPSI-TT-MW304I2-20101130	—	—	—	GW	G	5	3	2																																			14
15	11-30	1555	BPSI-FW-MW03-20101130	—	—	—	GW	G	5	3	2																																			14
16	11-30	2400	BPSI-Dup02-20101130	—	—	—	GW	G	5	3	2																																			19
17	12-1	0730	BPSI-RB01-20101201	—	—	—	QC	G	5	3	2																																	Rinsate		18
18	12-1	0915	BPSI-MW301S-20101201	—	—	—	GW	G	5	3	2																																			14
19	12-1	0917	BPSI-TT-MW304I1-20101201	—	—	—	GW	G	5	3	2																																			14
20	12-1	1050	BPSI-MW301D-20101201	—	—	—	GW	G	5	3	2																																			14
21	12-1	1135	BPSI-TT-MW304S-20101201	—	—	—	GW	G	5	3	2																																			14
22	12-1	1230	BPSI-MW301I-20101201	—	—	—	GW	G	5	3	2																																			14
23	12-1	1310	BPSI-~~DUP~~SB01-20101201	—	—	—	QC	G	5	3	2																																	Source Water Blank		20
24	12-1	1347	BPSI-HN~~MW~~29I-20101201	—	—	—	GW	G	5	3	2																																			14
	12-1	1350	BPSI-AQIDW01-20101201	—	—	—	GW	G~~C~~	10	3	2																																			
	12-1	1410	BPSI-SOIDW01-20101201	—	—	—	SO	C	5			2	1	1	1																															

1. RELINQUISHED BY	DATE 12-1-10	TIME 1800	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 12/2/10	TIME 0915

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E-1103029

Cart 7

TETRA TECH NUS, INC. | **CHAIN OF CUSTODY** | **NUMBER** 2697 | **PAGE** 1 **OF** 1 37.7

PROJECT NO: 112G02230	**FACILITY:** NWIRP Bethpage	**PROJECT MANAGER** Rob Sok	**PHONE NUMBER** 757-466-4904	**LABORATORY NAME AND CONTACT:** TriMatrix Labs
SAMPLERS (SIGNATURE) Jacob Birkett		**FIELD OPERATIONS LEADER** Vince Shickora	**PHONE NUMBER** 610-909-1893	**ADDRESS** 5560 Corporate Exchange Ct, SE
		CARRIER/WAYBILL NUMBER FedEx # 8706 9629 3324		**CITY, STATE** Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)									PRESERVATIVE USED									TYPE OF ANALYSIS / TEST GROUP									COMMENTS
										G	G	P	P						HCl	/	HNO3	/						VOCs	PCBs	TAL Metals	Hex Chrom		TEST GROUP					
01	2-28	0845	BPSI-TB01-20110228	—	—	—	QC	—	2	2																					13			TB lab prepared
02	3-1	0900	BPSI-TT-MW302D-20110301	—	—	—	GW	G	5	3	2																				14			
03	3-1	0913	BPSI-TT-MW303D-20110301	—	—	—	GW	G	5	3	2																				14			
04	3-1	1040	BPSI-TT-MW302I2-20110301	—	—	—	GW	G	5	3	2																				14			
05	3-1	1046	BPSI-TT-MW303I2-20110301	—	—	—	GW	G	5	3	2																				14			
06	3-1	1210	BPSI-TT-MW302I1-20110301	—	—	—	GW	G	5	3	2																				14			
07	3-1	1223	BPSI-TT-MW303I1-20110301	—	—	—	GW	G	5	3	2																				14			
08	3-1	1400	BPSI-TT-MW302S-20110301	—	—	—	GW	G	7	3	2	1	1																		23			
09	3-1	1400	BPSI-TT-MW303S-20110301	—	—	—	GW	G	15	7	6	1	1																		24			RUN MSMSD
			~~BPSI-Dup~~ 3-1-11																																			

1. RELINQUISHED BY Jacob Birkett	DATE 3-1-11	TIME 1630	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 3/2/11	TIME 0840

COMMENTS TriMatrix to change TB collection date to 3/1/11. (WR) 3/2/11

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

30022

E 1103045

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2698 | PAGE 1 OF 1

691R 3 Cart 7

39.1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob SoK	(757) 466-4904	Trimatrix Laboratories
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	(610) 909-1893	5560 Corporate Exchange Ct. SE
Vince Shickora		**CARRIER/WAYBILL NUMBER**		**CITY, STATE**
		FED Ex # 8706 9629 3770		Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE (YEAR 2011)	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G	P	P							
										PRESERVATIVE USED	—	HCl	HNO3	—							
										TYPE OF ANALYSIS	PCBs (1 Liter Amber)	VOCs	TAL Metals	Hex Chrom				TEST GROUP			COMMENTS
01	3/1	1640	BPSI-SW01-20110301	—	—	—	SW	G	2	2							26				
02	3/1	1706	BPSI-TB02-20110301	—	—	—	QC	—	2		2						13				Lab prepared
03	3/2	0745	BPSI-RBC1-20110302	—	—	—	QC	G	5	2	3						18				RinSate on Grundfos
04	3/2	0922	BPSI-TT-MW301S-20110302	—	—	—	GW	G	5	2	3						14				
05	3/2	0935	BPSI-FW-MW02-20110302	—	—	—	GW	G	5	2	3						14				
06	3/2	1056	BPSI-TT-MW301D-20110302	—	—	—	GW	G	5	2	3						14				
07	3/2	1105	BPSI-FW-MW01-20110302	—	—	—	GW	G	5	2	3						14				
08	3/2	1246	BPSI-TT-MW301I-20110302	—	—	—	GW	G	7	2	3	1	1				23				
09	3/2	1315	BPSI-HN-MW29I-20110302	—	—	—	GW	G	7	2	3	1	1				23				
10	3/2	1446	BPSI-TT-MW304D-20110302	—	—	—	GW	G	7	2	3	1	1				23				
11	3/2	1200	BPSI-DUP02-20110302	—	—	—	GW	G	7	2	3	1	1				27				
12	3/2	1520	BPSI-TT-MW304I-20110302	—	—	—	GW	G	7	2	3	1	1				23				
13	3/2	1030	BPSI-DUP01-20110302	—	—	—	GW	G	5	2	3						19				

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	3-2-11	1900	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	3/3/11	0830

COMMENTS

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FORM NO. TtNUS-001

000031

TETRA TECH NUS, INC. — CHAIN OF CUSTODY | NUMBER 2675 — PAGE 1 OF 1

PROJECT NO: 112G02230 | FACILITY: NWIRP Bethpage

PROJECT MANAGER: Rob Sok | PHONE NUMBER: 757-466-4904 | LABORATORY NAME AND CONTACT: TriMatrix Lab

SAMPLERS (SIGNATURE): Jacob Birkett | FIELD OPERATIONS LEADER: Vince Shickora | PHONE NUMBER: 610-909-1893 | ADDRESS: 5560 Corporate Exchange Ct, SE

CARRIER/WAYBILL NUMBER: FedEx Airbill #8706-9629-3769 | CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P A
PRESERVATIVE USED: HCl / HNO3 /

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOC	PCB	TAL Metals	Hex Chrom	TEST GROUP			COMMENTS
3.3	0730	BPSI-FB01-20110303	-	-	-	QC	G	5	3	2			20			Field Blank
3.3	0731	BPSI-TB03-20110303	-	-	-	QC	-	2	2	~~2~~ 3-3-11			13			Lab prepared
3.3	0835	BPSI-SW04-20110303	-	-	-	SW	G	2		2			26			
3.3	1102	BPSI-FW-MW03-20110303	-	-	-	GW	G	5	3	2			14			
3.3	1224	BPSI-TT-MW304I2-20110303	-	-	-	GW	G	7	3	2	1	1	23			
3.3	1235	BPSI-TT-MW304S-20110303	-	-	-	GW	G	7	3	2	1	1	23			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Jacob Birkett	3-3-11	1430	1. RECEIVED BY		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY: TriMatrix	3/4/11	0835

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

08812

Groundwater Analytical Results

Appendix D
Groundwater Analytical Results

LOCATION	BPS1FWMW01	BPS1FWMW01	BPS1FWMW02	BPS1FWMW02	BPS1FWMW02	BPS1FWMW03
SAMPLE ID	BPS1-FW-MW01-20101130	BPS1-FW-MW01-20110302	BPS1-FW-MW02-20101130	BPS1-FW-MW02-20101130-D	BPS1-FW-MW02-20110302	BPS1-FW-MW03-20101130
SAMPLE DATE	11/30/2010	3/2/2011	11/30/2010	11/30/2010	3/2/2011	11/30/2010
METALS (UG/L)						
ALUMINUM	--	--	--	--	--	--
ANTIMONY	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--
BARIUM	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--
CALCIUM	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--
COBALT	--	--	--	--	--	--
COPPER	--	--	--	--	--	--
IRON	--	--	--	--	--	--
LEAD	--	--	--	--	--	--
MAGNESIUM	--	--	--	--	--	--
MANGANESE	--	--	--	--	--	--
MERCURY	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--
POTASSIUM	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--
SILVER	--	--	--	--	--	--
SODIUM	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--
VANADIUM	--	--	--	--	--	--
ZINC	--	--	--	--	--	--
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	--	--
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	7.9	23	0.62 J	0.65 J	0.98 J	0.29 J
1,1,2-TRICHLOROTRIFLUOROETHANE	0.62 J	1.4	0.5 U	0.5 U	0.31 J	0.5 U
1,1-DICHLOROETHANE	3.8	4.4	0.5 U	0.5 U	0.50 U	0.5 U
1,1-DICHLOROETHENE	0.46 J	0.59 J	0.5 U	0.5 U	0.50 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U
2-BUTANONE	1 U	0.50 U	1 U	1 U	0.50 U	1 U
ACETONE	5 U	1 UR	5 U	5 U	1 UR	5 U
BENZENE	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U
CIS-1,2-DICHLOROETHENE	32	110	0.5 U	0.5 U	0.28 J	0.34 J
DICHLORODIFLUOROMETHANE	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U
ETHYLBENZENE	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.5 U
M+P-XYLENES	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U
O-XYLENE	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.5 U
TETRACHLOROETHENE	180	550	29	28	41	67
TOLUENE	0.5 U	0.10 U	0.5 U	0.5 U	0.10 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.51 J	1	0.5 U	0.5 U	0.50 U	0.5 U
TRICHLOROETHENE	15	41	2.4	2.2	3.9	3.8
TRICHLOROFLUOROMETHANE	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U
VINYL CHLORIDE	0.25 U	0.50 U	0.25 U	0.25 U	0.50 U	0.25 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
AROCLOR-1242	1 J	1 J	0.3 J	0.29 J	0.49 J	2.8 J
AROCLOR-1248	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an estimated value.

U = The chemical was not detected.

R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS1FWMW03	BPS13010	BPS13010	BPS13010	BPS13010	BPS13010
SAMPLE ID	BPS1-FW-MW03-20110303	BPS1-GW3010-114118	BPS1-GW3010-144148	BPS1-GW3010-144148-D	BPS1-GW3010-196200	BPS1-GW3010-5761
SAMPLE DATE	3/3/2011	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/16/2010
METALS (UG/L)						
ALUMINUM	--	--	--	--	--	--
ANTIMONY	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--
BARIUM	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--
CALCIUM	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--
COBALT	--	--	--	--	--	--
COPPER	--	--	--	--	--	--
IRON	--	--	--	--	--	--
LEAD	--	--	--	--	--	--
MAGNESIUM	--	--	--	--	--	--
MANGANESE	--	--	--	--	--	--
MERCURY	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--
POTASSIUM	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--
SILVER	--	--	--	--	--	--
SODIUM	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--
VANADIUM	--	--	--	--	--	--
ZINC	--	--	--	--	--	--
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	--	--
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.39 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-DICHLOROETHENE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-DICHLOROETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-BUTANONE	0.50 U	1 U	1 U	1 U	1 U	1 U
ACETONE	1 UR	5 U	5 U	5 U	5 U	5 U
BENZENE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
CIS-1,2-DICHLOROETHENE	0.45 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
DICHLORODIFLUOROMETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
ETHYLBENZENE	0.25 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
M+P-XYLENES	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
METHYLENE CHLORIDE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
O-XYLENE	0.25 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
TETRACHLOROETHENE	66	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
TOLUENE	0.10 U	0.50 U	0.19 J	0.21 J	0.27 J	0.50 U
TRANS-1,2-DICHLOROETHENE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
TRICHLOROETHENE	3.8	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROFLUOROMETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
VINYL CHLORIDE	0.50 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.092 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.092 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.046 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
AROCLOR-1242	2.1 J	0.42	0.25 J	0.26 J	0.17 J	0.10 J
AROCLOR-1248	0.092 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1254	0.092 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.092 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.092 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.092 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS13012	BPS13012	BPS13012	BPS13012	BPHNMW29I	BPHNMW29I
SAMPLE ID	BPS1-GW3012-110114	BPS1-GW3012-144148	BPS1-GW3012-200204	BPS1-GW3012-4852	BPS1-HN-29I-20101201	BPS1-HN-MW29I-20110302
SAMPLE DATE	8/12/2010	8/13/2010	8/14/2010	8/10/2010	12/1/2010	3/2/2011
METALS (UG/L)						
ALUMINUM	--	--	--	--	--	83 J
ANTIMONY	--	--	--	--	--	0.50 U
ARSENIC	--	--	--	--	--	0.88 J
BARIUM	--	--	--	--	--	43
BERYLLIUM	--	--	--	--	--	0.40 U
CADMIUM	--	--	--	--	--	0.071 J
CALCIUM	--	--	--	--	--	25000
CHROMIUM	--	--	--	--	--	2
COBALT	--	--	--	--	--	0.36 J
COPPER	--	--	--	--	--	4.4
IRON	--	--	--	--	--	38
LEAD	--	--	--	--	--	0.34 J
MAGNESIUM	--	--	--	--	--	320 J
MANGANESE	--	--	--	--	--	1.1 J
MERCURY	--	--	--	--	--	0.10 U
NICKEL	--	--	--	--	--	0.86 J
POTASSIUM	--	--	--	--	--	1100
SELENIUM	--	--	--	--	--	1 U
SILVER	--	--	--	--	--	0.05 J
SODIUM	--	--	--	--	--	11000
THALLIUM	--	--	--	--	--	0.10 U
VANADIUM	--	--	--	--	--	4.9
ZINC	--	--	--	--	--	10
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	--	1.1
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
1,1-DICHLOROETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
1,1-DICHLOROETHENE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
1,2-DICHLOROETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
2-BUTANONE	1 U	1 U	1 U	1 U	1 U	0.50 U
ACETONE	5 U	5 U	5 U	5 U	5 U	1.4 U
BENZENE	0.50 U	0.19 J	0.50 U	0.50 U	0.5 U	0.50 U
CIS-1,2-DICHLOROETHENE	0.50 U	0.61 J	0.50 U	0.50 U	0.5 U	0.50 U
DICHLORODIFLUOROMETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
ETHYLBENZENE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.25 U
M+P-XYLENES	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
METHYLENE CHLORIDE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
O-XYLENE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.25 U
TETRACHLOROETHENE	0.50 U	0.91 J	0.50 U	0.50 U	1.3	0.58 J
TOLUENE	0.25 J	0.50 U	0.50 U	0.50 U	0.5 U	0.10 U
TRANS-1,2-DICHLOROETHENE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
TRICHLOROETHENE	0.25 U	1.4	0.25 U	0.25 U	0.57 J	0.40 J
TRICHLOROFLUOROMETHANE	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U
VINYL CHLORIDE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.086 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.086 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.04 U	0.04 U	0.043 U	0.04 U	0.04 U
AROCLOR-1242	0.08 U	0.24	0.08 U	0.086 U	0.94 J	1.2 J
AROCLOR-1248	0.08 U	0.08 U	0.08 U	0.086 U	0.08 U	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.086 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.086 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.086 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.086 U	0.08 U	0.08 U

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS1-MW301D	BPS1-MW301D	BPS1-MW301D	BPS1-MW301I	BPS1-MW301I	BPS1-MW301S
SAMPLE ID	BPS1-TT-MW301D-20101201	BPS1-TT-MW301D-20110302	BPS1-TT-MW301D-20110302-D	BPS1-TT-MW301I-20101201	BPS1-TT-MW301I-20110302	BPS1-TT-MW301S-20101201
SAMPLE DATE	12/1/2010	3/2/2011	3/2/2011	12/1/2010	3/2/2011	12/1/2010
METALS (UG/L)						
ALUMINUM	--	--	--	--	51 J	--
ANTIMONY	--	--	--	--	0.50 U	--
ARSENIC	--	--	--	--	0.50 U	--
BARIUM	--	--	--	--	10	--
BERYLLIUM	--	--	--	--	0.40 U	--
CADMIUM	--	--	--	--	0.27	--
CALCIUM	--	--	--	--	3700	--
CHROMIUM	--	--	--	--	7.7	--
COBALT	--	--	--	--	0.29 J	--
COPPER	--	--	--	--	0.63 J	--
IRON	--	--	--	--	59	--
LEAD	--	--	--	--	0.16 J	--
MAGNESIUM	--	--	--	--	840	--
MANGANESE	--	--	--	--	3.5	--
MERCURY	--	--	--	--	0.10 U	--
NICKEL	--	--	--	--	3.2	--
POTASSIUM	--	--	--	--	700	--
SELENIUM	--	--	--	--	1 U	--
SILVER	--	--	--	--	0.10 U	--
SODIUM	--	--	--	--	2500	--
THALLIUM	--	--	--	--	0.10 U	--
VANADIUM	--	--	--	--	0.091 J	--
ZINC	--	--	--	--	8.5 J	--
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	4.5	--
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.45 J	0.34 J	0.37 J	0.5 U	0.50 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
2-BUTANONE	1 U	0.50 U	0.50 U	1 U	0.50 U	1 U
ACETONE	5 U	1 UR	1 UR	5 U	6.2 U	5 U
BENZENE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.57 J	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
ETHYLBENZENE	0.5 U	0.25 U	0.25 U	0.5 U	0.25 U	0.5 U
M+P-XYLENES	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
O-XYLENE	0.5 U	0.25 U	0.25 U	0.5 U	0.25 U	0.5 U
TETRACHLOROETHENE	0.5 J	0.24 J	0.25 J	0.5 U	0.50 U	0.5 U
TOLUENE	0.5 U	0.36 U	0.35 U	0.5 U	0.10 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
TRICHLOROETHENE	2.1	1.4	1.4	0.25 U	0.50 U	0.25 U
TRICHLOROFLUOROMETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
VINYL CHLORIDE	0.25 U	0.50 U	0.50 U	0.25 U	0.50 U	0.25 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.08 U	0.085 U	0.085 U	0.08 U	0.088 U	0.08 U
AROCLOR-1221	0.08 U	0.085 U	0.085 U	0.08 U	0.088 U	0.08 U
AROCLOR-1232	0.04 U	0.043 U	0.043 U	0.04 U	0.044 U	0.04 U
AROCLOR-1242	0.79 J	0.82 J	0.87 J	0.69 J	0.73 J	0.57 J
AROCLOR-1248	0.08 U	0.085 U	0.085 U	0.08 U	0.088 U	0.08 U
AROCLOR-1254	0.08 U	0.085 U	0.085 U	0.08 U	0.088 U	0.08 U
AROCLOR-1260	0.08 U	0.085 U	0.085 U	0.08 U	0.088 U	0.08 U
AROCLOR-1262	0.08 U	0.085 U	0.085 U	0.08 U	0.088 U	0.08 U
AROCLOR-1268	0.08 U	0.085 U	0.085 U	0.08 U	0.088 U	0.08 U

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS1-MW301S	BPS1-MW302D	BPS1-MW302D	BPS1-MW302I1	BPS1-MW302I1	BPS1-MW302I2
SAMPLE ID	BPS1-TT-MW301S-20110302	BPS1-TT-MW302D-20101129	BPS1-TT-MW302D-20110301	BPS1-TT-MW302I1-20101130	BPS1-TT-MW302I1-20110301	BPS1-TT-MW302I2-20101129
SAMPLE DATE	3/2/2011	11/29/2010	3/1/2011	11/30/2010	3/1/2011	11/29/2010
METALS (UG/L)						
ALUMINUM	--	--	--	--	--	--
ANTIMONY	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--
BARIUM	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--
CALCIUM	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--
COBALT	--	--	--	--	--	--
COPPER	--	--	--	--	--	--
IRON	--	--	--	--	--	--
LEAD	--	--	--	--	--	--
MAGNESIUM	--	--	--	--	--	--
MANGANESE	--	--	--	--	--	--
MERCURY	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--
POTASSIUM	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--
SILVER	--	--	--	--	--	--
SODIUM	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--
VANADIUM	--	--	--	--	--	--
ZINC	--	--	--	--	--	--
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	--	--
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.19 J	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
1,1-DICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
1,1-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
1,2-DICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
2-BUTANONE	0.50 U	1 U	0.50 U	1 U	0.50 U	1 U
ACETONE	1 UR	5 U	1 UR	5 U	1 UR	5 U
BENZENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
DICHLORODIFLUOROMETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
ETHYLBENZENE	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U
M+P-XYLENES	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
METHYLENE CHLORIDE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
O-XYLENE	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U
TETRACHLOROETHENE	0.50 U	0.5 U	0.22 J	0.5 U	0.19 J	0.5 U
TOLUENE	0.10 U	0.25 J	0.17 U	0.5 U	0.10 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
TRICHLOROETHENE	0.50 U	1	1.4	0.55 J	0.76 J	0.88 J
TRICHLOROFLUOROMETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
VINYL CHLORIDE	0.50 U	0.25 U	0.50 U	0.25 U	0.50 U	0.25 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
AROCLOR-1242	14 J	1.1 J	1.3 J	2 J	1.9 J	2.6 J
AROCLOR-1248	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS1-MW302I2	BPS1-MW302S	BPS1-MW302S	BPS1-MW303D	BPS1-MW303D	BPS1-MW303I1
SAMPLE ID	BPS1-TT-MW302I2-20110301	BPS1-TT-MW302S-20101130	BPS1-TT-MW302S-20110301	BPS1-TT-MW303D-20101129	BPS1-TT-MW303D-20110301	BPS1-TT-MW303I1-20101130
SAMPLE DATE	3/1/2011	11/30/2010	3/1/2011	11/29/2010	3/1/2011	11/30/2010
METALS (UG/L)						
ALUMINUM	--	--	5.7 J	--	--	--
ANTIMONY	--	--	0.50 U	--	--	--
ARSENIC	--	--	0.50 U	--	--	--
BARIUM	--	--	13	--	--	--
BERYLLIUM	--	--	0.40 U	--	--	--
CADMIUM	--	--	0.10 U	--	--	--
CALCIUM	--	--	4800	--	--	--
CHROMIUM	--	--	1.3	--	--	--
COBALT	--	--	0.29 J	--	--	--
COPPER	--	--	0.62 J	--	--	--
IRON	--	--	17 J	--	--	--
LEAD	--	--	0.50 U	--	--	--
MAGNESIUM	--	--	770	--	--	--
MANGANESE	--	--	12	--	--	--
MERCURY	--	--	0.10 U	--	--	--
NICKEL	--	--	1.3	--	--	--
POTASSIUM	--	--	720	--	--	--
SELENIUM	--	--	1 U	--	--	--
SILVER	--	--	0.052 J	--	--	--
SODIUM	--	--	2100	--	--	--
THALLIUM	--	--	0.03 J	--	--	--
VANADIUM	--	--	0.20 U	--	--	--
ZINC	--	--	4.5 J	--	--	--
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	--	1 U	--	--	--
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
1,1-DICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	1.7
1,1-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	2
1,2-DICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
2-BUTANONE	0.50 U	1 U	0.50 U	1 U	0.50 U	1 U
ACETONE	1 UR	5 U	1 UR	5 U	1 UR	5 U
BENZENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	1.9
DICHLORODIFLUOROMETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.28 J
ETHYLBENZENE	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U
M+P-XYLENES	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
METHYLENE CHLORIDE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
O-XYLENE	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U
TETRACHLOROETHENE	0.50 U	0.32 J	0.50 U	0.5 U	0.50 U	79
TOLUENE	0.10 U	0.5 U	0.10 U	0.5 U	0.10 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.5 U
TRICHLOROETHENE	1.1	0.25 U	0.50 U	0.45 J	0.40 J	17
TRICHLOROFLUOROMETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.3 J
VINYL CHLORIDE	0.50 U	0.25 U	0.50 U	0.25 U	0.50 U	0.25 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
AROCLOR-1242	1.8 J	0.6 J	0.26 J	0.42 J	0.66 J	3.9 J
AROCLOR-1248	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS1-MW303I1	BPS1-MW303I2	BPS1-MW303I2	BPS1-MW303S	BPS1-MW303S	BPS1-MW303S
SAMPLE ID	BPS1-TT-MW303I1-20110301	BPS1-TT-MW303I2-20101129	BPS1-TT-MW303I2-20110301	BPS1-TT-MW303S-20101130	BPS1-TT-MW303S-20101130-D	BPS1-TT-MW303S-20110301
SAMPLE DATE	3/1/2011	11/29/2010	3/1/2011	11/30/2010	11/30/2010	3/1/2011
METALS (UG/L)						
ALUMINUM	--	--	--	--	--	45 J
ANTIMONY	--	--	--	--	--	0.50 U
ARSENIC	--	--	--	--	--	0.50 U
BARIUM	--	--	--	--	--	18
BERYLLIUM	--	--	--	--	--	0.40 U
CADMIUM	--	--	--	--	--	0.11 J
CALCIUM	--	--	--	--	--	9300
CHROMIUM	--	--	--	--	--	5.3
COBALT	--	--	--	--	--	0.18 J
COPPER	--	--	--	--	--	0.64 J
IRON	--	--	--	--	--	190
LEAD	--	--	--	--	--	0.50 U
MAGNESIUM	--	--	--	--	--	1300
MANGANESE	--	--	--	--	--	2.9
MERCURY	--	--	--	--	--	0.10 U
NICKEL	--	--	--	--	--	3.8
POTASSIUM	--	--	--	--	--	1900
SELENIUM	--	--	--	--	--	1 U
SILVER	--	--	--	--	--	0.10 U
SODIUM	--	--	--	--	--	7400
THALLIUM	--	--	--	--	--	0.066 J
VANADIUM	--	--	--	--	--	0.14 J
ZINC	--	--	--	--	--	4 U
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	--	--	--	--	1 U
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
1,1-DICHLOROETHANE	2.4	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
1,1-DICHLOROETHENE	2.7	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
1,2-DICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
2-BUTANONE	0.50 U	1 U	0.50 U	1 U	1 U	0.50 U
ACETONE	1 U	5 U	1 UR	5 U	5 U	1 UR
BENZENE	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
CIS-1,2-DICHLOROETHENE	3.4	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
DICHLORODIFLUOROMETHANE	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
ETHYLBENZENE	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U
M+P-XYLENES	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
METHYLENE CHLORIDE	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
O-XYLENE	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U
TETRACHLOROETHENE	120	2.1	1.5	1	1	0.97 J
TOLUENE	0.10 U	0.5 U	0.10 U	0.5 U	0.5 U	0.10 U
TRANS-1,2-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U
TRICHLOROETHENE	25	2.6	1.9	0.25 U	0.25 U	0.76 J
TRICHLOROFLUOROMETHANE	0.50 U	0.23 J	0.50 U	0.5 U	0.5 U	0.50 U
VINYL CHLORIDE	0.50 U	0.25 U	0.50 U	0.25 U	0.25 U	0.50 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.08 U	0.1 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.1 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.052 U	0.04 U	0.04 U	0.04 U	0.04 U
AROCLOR-1242	2.8 J	3.4 J	2.3 J	0.052 J	0.056 J	0.13 J
AROCLOR-1248	0.08 U	0.1 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1254	0.08 U	0.1 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.1 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.1 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.1 U	0.08 U	0.08 U	0.08 U	0.08 U

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS1-MW304D	BPS1-MW304D	BPS1-MW304D	BPS1-MW304I1	BPS1-MW304I1	BPS1-MW304I2
SAMPLE ID	BPS1-TT-MW304D-20101130	BPS1-TT-MW304D-20110302	BPS1-TT-MW304D-20110302-D	BPS1-TT-MW304I1-20101201	BPS1-TT-MW304I1-20110302	BPS1-TT-MW304I2-20101130
SAMPLE DATE	11/30/2010	3/2/2011	3/2/2011	12/1/2010	3/2/2011	11/30/2010
METALS (UG/L)						
ALUMINUM	--	570 J	400 J	--	2800 J	--
ANTIMONY	--	0.50 U	0.50 U	--	0.50 U	--
ARSENIC	--	0.33 J	0.30 J	--	5.2	--
BARIUM	--	15	15	--	10	--
BERYLLIUM	--	0.40 U	0.40 U	--	0.40 U	--
CADMIUM	--	0.053 J	0.066 J	--	0.10 U	--
CALCIUM	--	3400	3600	--	4800	--
CHROMIUM	--	8.6	9.5	--	55	--
COBALT	--	0.41 J	0.42 J	--	1.5	--
COPPER	--	1.6	2	--	1.3	--
IRON	--	350	380	--	480	--
LEAD	--	0.74 J	0.64 J	--	0.80 J	--
MAGNESIUM	--	870	900	--	1500	--
MANGANESE	--	5.5	5.6	--	7.9	--
MERCURY	--	0.10 U	0.10 U	--	0.10 U	--
NICKEL	--	5.4	5.8	--	2.9	--
POTASSIUM	--	1100	1100	--	1800	--
SELENIUM	--	1 U	1 U	--	1 U	--
SILVER	--	0.10 U	0.10 U	--	0.17 J	--
SODIUM	--	10000	11000	--	29000	--
THALLIUM	--	0.10 U	0.10 U	--	0.10 U	--
VANADIUM	--	0.83 J	0.90 J	--	3	--
ZINC	--	4.8 J	6 J	--	4 J	--
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	--	1 U	1 U	--	58	--
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.5 U	0.50 U	0.50 U	15	6.1	0.64 J
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.50 U	0.50 U	0.44 J	0.50 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.50 U	0.50 U	6.9	3.1	0.51 J
1,1-DICHLOROETHENE	0.5 U	0.50 U	0.50 U	1	0.35 J	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
2-BUTANONE	1 U	0.50 U	0.50 U	1 U	0.50 U	1 U
ACETONE	5 U	1 UR	1 UR	5 U	1 UR	5 U
BENZENE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.50 U	0.50 U	85	35	8.8
DICHLORODIFLUOROMETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
ETHYLBENZENE	0.5 U	0.25 U	0.25 U	0.5 U	0.25 U	0.5 U
M+P-XYLENES	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
O-XYLENE	0.5 U	0.25 U	0.25 U	0.5 U	0.25 U	0.5 U
TETRACHLOROETHENE	0.5 J	0.50 U	0.50 U	93	54	17
TOLUENE	0.5 U	0.10 U	0.10 U	0.5 U	0.10 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.50 U	0.50 U	0.7 J	0.26 J	0.5 U
TRICHLOROETHENE	0.25 U	0.50 U	0.50 U	27	11	5.4
TRICHLOROFLUOROMETHANE	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U
VINYL CHLORIDE	0.25 U	0.50 U	0.50 U	0.25 U	0.50 U	0.25 U
PESTICIDES/PCBS (UG/L)						
AROCLOR-1016	0.08 U	0.088 U	0.085 U	0.08 U	0.08 U	0.085 U
AROCLOR-1221	0.08 U	0.088 U	0.085 U	0.08 U	0.08 U	0.085 U
AROCLOR-1232	0.04 U	0.044 U	0.043 U	0.04 U	0.04 U	0.043 U
AROCLOR-1242	4 J	2.7 J	2.9 J	0.5 J	0.89 J	1.7 J
AROCLOR-1248	0.08 U	0.088 U	0.085 U	0.08 U	0.08 U	0.085 U
AROCLOR-1254	0.08 U	0.088 U	0.085 U	0.08 U	0.08 U	0.085 U
AROCLOR-1260	0.08 U	0.088 U	0.085 U	0.08 U	0.08 U	0.085 U
AROCLOR-1262	0.08 U	0.088 U	0.085 U	0.08 U	0.08 U	0.085 U
AROCLOR-1268	0.08 U	0.088 U	0.085 U	0.08 U	0.08 U	0.085 U

Notes:

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R = The chemical was rejected.

UG/L = micrograms per liter

Appendix D
Groundwater Analytical Results

LOCATION	BPS1-MW304I2	BPS1-MW304S	BPS1-MW304S	BPS13011
SAMPLE ID	BPS1-TT-MW304I2-20110303	BPS1-TT-MW304S-20101201	BPS1-TT-MW304S-20110303	BPS1-TW3011-20100826
SAMPLE DATE	3/3/2011	12/1/2010	3/3/2011	8/26/2010
METALS (UG/L)				
ALUMINUM	25 J	--	17 J	--
ANTIMONY	0.50 U	--	0.50 U	--
ARSENIC	0.50 U	--	0.50 U	--
BARIUM	13	--	2.2	--
BERYLLIUM	0.40 U	--	0.40 U	--
CADMIUM	0.10 U	--	0.043 J	--
CALCIUM	3000	--	2100	--
CHROMIUM	180	--	1.9	--
COBALT	1.4	--	0.85 J	--
COPPER	0.87 J	--	0.65 J	--
IRON	40	--	13 J	--
LEAD	0.50 U	--	0.50 U	--
MAGNESIUM	890	--	280 J	--
MANGANESE	2.7	--	6.3	--
MERCURY	0.10 U	--	0.10 U	--
NICKEL	3.3	--	1.2	--
POTASSIUM	1200	--	290	--
SELENIUM	1 U	--	1 U	--
SILVER	0.10 U	--	0.087 J	--
SODIUM	15000	--	5100	--
THALLIUM	0.10 U	--	0.10 U	--
VANADIUM	1 U	--	0.11 J	--
ZINC	25	--	7.1 J	--
MISCELLANEOUS PARAMETERS (UG/L)				
HEXAVALENT CHROMIUM	166	--	1 U	--
VOLATILES (UG/L)				
1,1,1-TRICHLOROETHANE	0.31 J	0.5 U	0.50 U	0.50 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.50 U	0.5 U	0.50 U	0.50 U
1,1-DICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.50 U
1,1-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.50 U
1,2-DICHLOROETHANE	0.50 U	0.5 U	0.50 U	0.50 U
2-BUTANONE	0.50 U	1 U	0.50 U	1 U
ACETONE	1 UR	5 U	1 UR	2.8 U
BENZENE	0.50 U	0.5 U	0.50 U	0.50 U
CIS-1,2-DICHLOROETHENE	3.1	0.5 U	0.50 U	0.50 U
DICHLORODIFLUOROMETHANE	0.50 U	0.5 U	0.50 U	0.50 U
ETHYLBENZENE	0.25 U	0.5 U	0.25 U	0.50 U
M+P-XYLENES	0.50 U	0.5 U	0.50 U	0.50 U
METHYLENE CHLORIDE	0.50 U	0.5 U	0.50 U	0.50 U
O-XYLENE	0.25 U	0.5 U	0.25 U	0.50 U
TETRACHLOROETHENE	4.8	0.5 U	0.50 U	0.52 J
TOLUENE	0.10 U	0.5 U	0.10 U	0.50 U
TRANS-1,2-DICHLOROETHENE	0.50 U	0.5 U	0.50 U	0.50 U
TRICHLOROETHENE	1.4	0.25 U	0.50 U	0.53 J
TRICHLOROFLUOROMETHANE	0.50 U	0.5 U	0.50 U	0.50 U
VINYL CHLORIDE	0.50 U	0.25 U	0.50 U	0.25 U
PESTICIDES/PCBS (UG/L)				
AROCLOR-1016	0.09 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.09 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.045 U	0.04 U	0.04 U	0.04 U
AROCLOR-1242	2.6 J	0.08 U	0.08 U	0.08 U
AROCLOR-1248	0.09 U	0.08 U	0.08 U	0.076 J
AROCLOR-1254	0.09 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.09 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.09 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.09 U	0.08 U	0.08 U	0.08 U

Notes:

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R = The chemical was rejected.

UG/L = micrograms per liter

Soil Analytical Results

Appendix D
Soil Analytical Results
Page 1 of 15

LOCATION	BPS13004	BPS13004	BPS13004	BPS13004	BPS13004
SAMPLE ID	BPS1-SB3004-116.0116.5	BPS1-SB3004-154154.5	BPS1-SB3004-180190	BPS1-SB3004-235.0235.5	BPS1-SB3004-27.528
SAMPLE DATE	7/14/2010	7/14/2010	7/14/2010	7/15/2010	7/13/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	--	--	--	--	--
TOTAL ORGANIC CARBON (%)	--	0.012 U	--	0.086 J	--
TOTAL SOLIDS (%)	81	87	81	86	96
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	--	29 U	--	29 U	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	29 U	--	29 U	--
1,1-DICHLOROETHANE	--	29 U	--	29 U	--
1,1-DICHLOROETHENE	--	29 U	--	29 U	--
1,2-DICHLOROETHANE		29 U	--	29 U	--
2-BUTANONE	--	58 U	--	58 U	--
ACETONE	--	210 U	--	250 U	--
BENZENE	--	29 U	--	29 U	--
CIS-1,2-DICHLOROETHENE	--	29 U	--	29 U	--
DICHLORODIFLUOROMETHANE	--	58 U	--	58 U	--
ETHYLBENZENE	--	29 U	--	29 U	--
M+P-XYLENES	--	58 U	--	58 U	--
METHYLENE CHLORIDE	--	58 U	--	58 U	--
O-XYLENE	--	29 U	--	29 U	--
TETRACHLOROETHENE	--	29 U	--	29 U	--
TOLUENE	--	29 U	--	29 U	--
TRANS-1,2-DICHLOROETHENE	--	29 U	--	29 U	--
TRICHLOROETHENE	--	58 U	--	58 U	--
TRICHLOROFLUOROMETHANE	--	29 U	--	29 U	--
VINYL CHLORIDE	--	29 U	--	29 U	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	16 U	15 U	16 U	15 U	14 U
AROCLOR-1221	16 U	15 U	16 U	15 U	14 U
AROCLOR-1232	16 U	15 U	16 U	15 U	14 U
AROCLOR-1242	16 U	15 U	16 U	15 U	14 U
AROCLOR-1248	8.3 U	7.7 U	8.2 U	7.8 U	7 U
AROCLOR-1254	16 U	15 U	16 U	15 U	14 U
AROCLOR-1260	16 U	15 U	16 U	15 U	14 U
AROCLOR-1262	16 U	15 U	16 U	15 U	14 U
AROCLOR-1268	8.3 U	7.7 U	8.2 U	7.8 U	7 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	--	8.4 U	--	4.7 U	--
GASOLINE RANGE ORGANICS	--	4.6 U	--	4.7 U	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an estimated value.

U = The chemical was not detected.

R = The chemical was rejected.

UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13004	BPS13004	BPS13004	BPS13004	BPS13004
SAMPLE ID	BPS1-SB3004-3434.5	BPS1-SB3004-3737.5	BPS1-SB3004-4242.5	BPS1-SB3004-4747.5	BPS1-SB3004-4949.5
SAMPLE DATE	7/14/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	--	--	--	--	--
TOTAL ORGANIC CARBON (%)	--	--	--	--	--
TOTAL SOLIDS (%)	94	93	83	88	85
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	--	--	--
1,1-DICHLOROETHANE	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--
2-BUTANONE	--	--	--	--	--
ACETONE	--	--	--	--	--
BENZENE	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--
METHYLENE CHLORIDE	--	--	--	--	--
O-XYLENE	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--
TOLUENE	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	14 U	14 U	16 U	15 U	15 U
AROCLOR-1221	14 U	14 U	16 U	15 U	15 U
AROCLOR-1232	14 U	14 U	16 U	15 U	15 U
AROCLOR-1242	14 U	14 U	16 U	15 U	15 U
AROCLOR-1248	7.1 U	7.2 U	8.1 U	7.6 U	7.8 U
AROCLOR-1254	14 U	14 U	16 U	15 U	15 U
AROCLOR-1260	14 U	14 U	16 U	15 U	15 U
AROCLOR-1262	14 U	14 U	16 U	15 U	15 U
AROCLOR-1268	7.1 U	7.2 U	8.1 U	7.6 U	7.8 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	--	--	--	--	--
GASOLINE RANGE ORGANICS	--	--	--	--	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13004	BPS13004	BPS13005	BPS13005	BPS13005
SAMPLE ID	BPS1-SB3004-5454.5	BPS1-SB3004-64.565	BPS1-SB3005-145.0145.5	BPS1-SB3005-145.0145.5-D	BPS1-SB3005-180190
SAMPLE DATE	7/14/2010	7/14/2010	7/17/2010	7/17/2010	7/17/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	--	--	--	--	--
TOTAL ORGANIC CARBON (%)	0.011 U	0.012 U	0.026 J	0.024 J	--
TOTAL SOLIDS (%)	91	82	77	76	76
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	26 U	31 U	29 U	33 U	--
1,1,2-TRICHLOROTRIFLUOROETHANE	26 U	31 U	29 U	33 U	--
1,1-DICHLOROETHANE	26 U	31 U	29 U	33 U	--
1,1-DICHLOROETHENE	26 U	31 U	29 U	33 U	--
1,2-DICHLOROETHANE	26 U	31 U	29 U	33 U	--
2-BUTANONE	51 U	61 U	57 U	66 U	--
ACETONE	200 U	220 U	210 U	220 U	--
BENZENE	26 U	31 U	29 U	33 U	--
CIS-1,2-DICHLOROETHENE	26 U	31 U	29 U	33 U	--
DICHLORODIFLUOROMETHANE	51 U	61 U	57 U	66 U	--
ETHYLBENZENE	26 U	31 U	29 U	33 U	--
M+P-XYLENES	51 U	61 U	57 U	66 U	--
METHYLENE CHLORIDE	51 U	61 U	57 U	66 U	--
O-XYLENE	26 U	31 U	29 U	33 U	--
TETRACHLOROETHENE	26 U	31 U	29 U	33 U	--
TOLUENE	26 U	31 U	29 U	33 U	--
TRANS-1,2-DICHLOROETHENE	26 U	31 U	29 U	33 U	--
TRICHLOROETHENE	51 U	61 U	57 U	66 U	--
TRICHLOROFLUOROMETHANE	26 U	31 U	29 U	33 U	--
VINYL CHLORIDE	26 U	31 U	29 U	33 U	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	14 U	16 U	17 U	17 U	17 U
AROCLOR-1221	14 U	16 U	17 U	17 U	17 U
AROCLOR-1232	14 U	16 U	17 U	17 U	17 U
AROCLOR-1242	14 U	16 U	17 U	17 U	17 U
AROCLOR-1248	7.3 U	8.2 U	8.7 U	8.8 U	8.8 U
AROCLOR-1254	14 U	16 U	17 U	17 U	17 U
AROCLOR-1260	14 U	16 U	17 U	17 U	17 U
AROCLOR-1262	14 U	16 U	17 U	17 U	17 U
AROCLOR-1268	7.3 U	8.2 U	8.7 U	8.8 U	8.8 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	4.7 U	5 U	6.1 U	6.9 U	--
GASOLINE RANGE ORGANICS	4.4 U	4.9 U	5.2 U	5.3 U	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13005	BPS13005	BPS13005	BPS13005	BPS13005
SAMPLE ID	BPS1-SB3005-232.5233.0	BPS1-SB3005-27.528.0	BPS1-SB3005-34.034.5	BPS1-SB3005-37.538.0	BPS1-SB3005-43.043.5
SAMPLE DATE	7/17/2010	7/16/2010	7/16/2010	7/16/2010	7/16/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	--	--	--	--	--
TOTAL ORGANIC CARBON (%)	0.022 J	--	--	0.085 J	--
TOTAL SOLIDS (%)	85	92	92	96	88
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	29 U	--	--	23 U	--
1,1,2-TRICHLOROTRIFLUOROETHANE	29 U	--	--	23 U	--
1,1-DICHLOROETHANE	29 U	--	--	23 U	--
1,1-DICHLOROETHENE	29 U	--	--	23 U	--
1,2-DICHLOROETHANE	29 U	--	--	23 U	--
2-BUTANONE	59 U	--	--	47 U	--
ACETONE	240 U	--	--	190 U	--
BENZENE	29 U	--	--	23 U	--
CIS-1,2-DICHLOROETHENE	29 U	--	--	23 U	--
DICHLORODIFLUOROMETHANE	59 U	--	--	47 U	--
ETHYLBENZENE	29 U	--	--	23 U	--
M+P-XYLENES	59 U	--	--	47 U	--
METHYLENE CHLORIDE	59 U	--	--	47 U	--
O-XYLENE	29 U	--	--	23 U	--
TETRACHLOROETHENE	29 U	--	--	23 U	--
TOLUENE	29 U	--	--	23 U	--
TRANS-1,2-DICHLOROETHENE	29 U	--	--	23 U	--
TRICHLOROETHENE	59 U	--	--	47 U	--
TRICHLOROFLUOROMETHANE	29 U	--	--	23 U	--
VINYL CHLORIDE	29 U	--	--	23 U	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	15 U	14 U	14 U	14 U	15 U
AROCLOR-1221	15 U	14 U	14 U	14 U	15 U
AROCLOR-1232	15 U	14 U	14 U	14 U	15 U
AROCLOR-1242	15 U	14 U	14 U	14 U	18 J
AROCLOR-1248	7.9 U	7.3 U	7.3 U	7 U	7.6 U
AROCLOR-1254	15 U	14 U	14 U	14 U	15 U
AROCLOR-1260	15 U	14 U	14 U	14 U	15 U
AROCLOR-1262	15 U	14 U	14 U	14 U	15 U
AROCLOR-1268	7.9 U	7.3 U	7.3 U	7 U	7.6 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	4.1 U	--	--	1.9 U	--
GASOLINE RANGE ORGANICS	4.7 U	--	--	4.2 U	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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U = The chemical was not detected.

R = The chemical was rejected.

UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13005	BPS13005	BPS13005	BPS13005	BPS13005
SAMPLE ID	BPS1-SB3005-49.049.5	BPS1-SB3005-54.555.0	BPS1-SB3005-57.558.0	BPS1-SB3005-94.595.0	BPS1-SB3005-DR1
SAMPLE DATE	7/16/2010	7/16/2010	7/16/2010	7/16/2010	2/28/2011
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	--	--	--	--	73
TOTAL ORGANIC CARBON (%)	--	1	--	--	--
TOTAL SOLIDS (%)	92	87	92	80	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	--	26 J	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	29 U	--	--	--
1,1-DICHLOROETHANE	--	29 U	--	--	--
1,1-DICHLOROETHENE	--	29 U	--	--	--
1,2-DICHLOROETHANE	--	29 U	--	--	--
2-BUTANONE	--	57 U	--	--	--
ACETONE	--	250 U	--	--	--
BENZENE	--	29 U	--	--	--
CIS-1,2-DICHLOROETHENE	--	29 U	--	--	--
DICHLORODIFLUOROMETHANE	--	57 U	--	--	--
ETHYLBENZENE	--	29 U	--	--	--
M+P-XYLENES	--	57 U	--	--	--
METHYLENE CHLORIDE	--	57 U	--	--	--
O-XYLENE	--	29 U	--	--	--
TETRACHLOROETHENE	--	120	--	--	--
TOLUENE	--	29 U	--	--	--
TRANS-1,2-DICHLOROETHENE	--	29 U	--	--	--
TRICHLOROETHENE	--	57 U	--	--	--
TRICHLOROFLUOROMETHANE	--	29 U	--	--	--
VINYL CHLORIDE	--	29 U	--	--	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	14 U	15 U	14 UJ	16 U	18 U
AROCLOR-1221	14 U	15 U	14 UJ	16 U	18 U
AROCLOR-1232	14 U	15 U	14 UJ	16 U	18 U
AROCLOR-1242	14 U	160000 J	110000 J	16 U	2200 J
AROCLOR-1248	7.3 U	7.7 U	7.3 UJ	16 J	9.2 U
AROCLOR-1254	14 U	15 U	14 UJ	16 U	18 U
AROCLOR-1260	14 U	910 J	800 J	16 U	18 U
AROCLOR-1262	14 U	15 U	14 UJ	16 U	18 U
AROCLOR-1268	7.3 U	7.7 U	7.3 UJ	8.3 U	9.2 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	--	8.5 U	--	--	--
GASOLINE RANGE ORGANICS	--	4.6 U	--	--	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

Notes:

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UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

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LOCATION	BPS13005	BPS13006	BPS13006	BPS13006	BPS13006
SAMPLE ID	BPS1-SB3005-DR2	BPS1-SB3006-117.0117.5	BPS1-SB3006-181.0181.5	BPS1-SB3006-181.0181.5-D	BPS1-SB3006-226.5227.0
SAMPLE DATE	2/28/2011	7/27/2010	7/28/2010	7/28/2010	7/28/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	82	83	76	74	84
TOTAL ORGANIC CARBON (%)	--	0.01 J	0.01 U	0.01 U	0.01 U
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	--	28 U	33 U	34 U	30 U
1,1,2-TRICHLOROTRIFLUOROETHANE	--	28 U	33 U	34 U	30 U
1,1-DICHLOROETHANE	--	28 U	33 U	34 U	30 U
1,1-DICHLOROETHENE	--	28 U	33 U	34 U	30 U
1,2-DICHLOROETHANE	--	28 U	33 U	34 U	30 U
2-BUTANONE	--	56 U	66 U	77 U	59 U
ACETONE	--	280 U	330 U	340 U	300 U
BENZENE	--	28 U	33 U	34 U	30 U
CIS-1,2-DICHLOROETHENE	--	28 U	33 U	34 U	30 U
DICHLORODIFLUOROMETHANE	--	56 U	66 U	68 U	59 U
ETHYLBENZENE	--	28 U	33 U	34 U	30 U
M+P-XYLENES	--	56 U	66 U	68 U	59 U
METHYLENE CHLORIDE	--	56 UJ	66 UJ	68 UJ	59 UJ
O-XYLENE	--	28 U	33 U	34 U	30 U
TETRACHLOROETHENE	--	28 U	33 U	34 U	30 U
TOLUENE	--	28 U	33 U	34 U	30 U
TRANS-1,2-DICHLOROETHENE	--	28 U	33 U	34 U	30 U
TRICHLOROETHENE	--	56 U	66 U	68 U	59 U
TRICHLOROFLUOROMETHANE	--	28 U	33 U	34 U	30 U
VINYL CHLORIDE	--	28 U	33 U	34 U	30 U
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	320 U	16 U	17 U	18 U	15 U
AROCLOR-1221	320 U	16 U	17 U	18 U	15 U
AROCLOR-1232	320 U	16 U	17 U	18 U	15 U
AROCLOR-1242	25000 J	16 U	17 U	18 U	15 U
AROCLOR-1248	160 U	8.1 U	8.8 U	9.1 U	8 U
AROCLOR-1254	320 U	16 U	17 U	18 U	15 U
AROCLOR-1260	320 U	16 U	17 U	18 U	15 U
AROCLOR-1262	320 U	16 U	17 U	18 U	15 U
AROCLOR-1268	160 U	8.1 U	8.8 U	9.1 U	8 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	--	6.1 U	6.6 U	6.8 U	5.9 U
GASOLINE RANGE ORGANICS	--	4.4 U	5.3 U	5.4 U	4.8 U
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

LOCATION	BPS13006	BPS13006	BPS13006	BPS13006	BPS13007
SAMPLE ID	BPS1-SB3006-32.032.5	BPS1-SB3006-32.032.5-D	BPS1-SB3006-53.053.5	BPS1-SB3006-72.072.5	BPS1-SB3007-100.0100.5
SAMPLE DATE	7/27/2010	7/27/2010	7/27/2010	7/27/2010	7/29/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	86	85	86	88	80
TOTAL ORGANIC CARBON (%)	--	--	0.01 J	--	0.01 U
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	--	--	29 U	--	31 U
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	29 U	--	31 U
1,1-DICHLOROETHANE	--	--	29 U	--	31 U
1,1-DICHLOROETHENE	--	--	29 U	--	31 U
1,2-DICHLOROETHANE	--	--	29 U	--	31 U
2-BUTANONE	--	--	58 U	--	62 U
ACETONE	--	--	290 U	--	310 U
BENZENE	--	--	29 U	--	31 U
CIS-1,2-DICHLOROETHENE	--	--	29 U	--	31 U
DICHLORODIFLUOROMETHANE	--	--	58 U	--	63 U
ETHYLBENZENE	--	--	29 U	--	31 U
M+P-XYLENES	--	--	58 U	--	63 U
METHYLENE CHLORIDE	--	--	58 UJ	--	63 UJ
O-XYLENE	--	--	29 U	--	31 U
TETRACHLOROETHENE	--	--	29 U	--	31 U
TOLUENE	--	--	29 U	--	31 U
TRANS-1,2-DICHLOROETHENE	--	--	29 U	--	31 U
TRICHLOROETHENE	--	--	58 U	--	63 U
TRICHLOROFLUOROMETHANE	--	--	29 U	--	31 U
VINYL CHLORIDE	--	--	29 U	--	31 U
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	15 U	15 U	15 U	15 U	16 U
AROCLOR-1221	15 U	15 U	15 U	15 U	16 U
AROCLOR-1232	15 U	15 U	15 U	15 U	16 U
AROCLOR-1242	15 U	15 U	15 U	15 U	16 U
AROCLOR-1248	15000 J	17000 J	22 J	7.6 U	8.4 U
AROCLOR-1254	15 U	15 U	15 U	15 U	16 U
AROCLOR-1260	15 U	15 U	15 U	15 U	16 U
AROCLOR-1262	15 U	15 U	15 U	15 U	16 U
AROCLOR-1268	7.8 U	7.9 U	7.8 U	7.6 U	8.4 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	--	--	5.8 U	--	6.3 U
GASOLINE RANGE ORGANICS	--	--	4.6 U	--	5 U
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

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LOCATION	BPS13007	BPS13007	BPS13007	BPS13007	BPS13007
SAMPLE ID	BPS1-SB3007-140150	BPS1-SB3007-217.5218.0	BPS1-SB3007-240.250	BPS1-SB3007-37.538.0	BPS1-SB3007-57.057.5
SAMPLE DATE	7/29/2010	7/30/2010	7/30/2010	7/29/2010	7/29/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	83	82	81	84	87
TOTAL ORGANIC CARBON (%)	--	0.01 U	--	0.026 J	0.01 U
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	--	28 U	--	30 U	29 U
1,1,2-TRICHLOROTRIFLUOROETHANE	--	28 U	--	30 U	29 U
1,1-DICHLOROETHANE	--	28 U	--	30 U	29 U
1,1-DICHLOROETHENE	--	28 U	--	30 U	29 U
1,2-DICHLOROETHANE	--	28 U	--	30 U	29 U
2-BUTANONE	--	56 U	--	59 U	57 U
ACETONE	--	280 U	--	300 U	290 U
BENZENE	--	28 U	--	30 U	29 U
CIS-1,2-DICHLOROETHENE	--	28 U	--	30 U	29 U
DICHLORODIFLUOROMETHANE	--	56 U	--	59 U	57 U
ETHYLBENZENE	--	28 U	--	30 U	29 U
M+P-XYLENES	--	56 U	--	59 U	57 U
METHYLENE CHLORIDE	--	56 UJ	--	59 UJ	57 UJ
O-XYLENE	--	28 U	--	30 U	29 U
TETRACHLOROETHENE	--	28 U	--	30 U	29 U
TOLUENE	--	28 U	--	30 U	29 U
TRANS-1,2-DICHLOROETHENE	--	28 U	--	30 U	29 U
TRICHLOROETHENE	--	56 U	--	59 U	57 U
TRICHLOROFLUOROMETHANE	--	28 U	--	30 U	29 U
VINYL CHLORIDE	--	28 U	--	30 U	29 U
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	16 U	16 U	16 U	15 U	15 U
AROCLOR-1221	16 U	16 U	16 U	15 U	15 U
AROCLOR-1232	16 U	16 U	16 U	15 U	15 U
AROCLOR-1242	16 U	16 U	16 U	15 U	15 U
AROCLOR-1248	8.1 U	8.1 U	8.3 U	8 U	7.7 U
AROCLOR-1254	16 U	16 U	16 U	15 U	15 U
AROCLOR-1260	16 U	16 U	16 U	15 U	15 U
AROCLOR-1262	16 U	16 U	16 U	15 U	15 U
AROCLOR-1268	8.1 U	8.1 U	8.3 U	8 U	7.7 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	--	6.1 U	--	5.9 U	5.7 U
GASOLINE RANGE ORGANICS	--	4.5 U	--	4.2 U	4.6 U
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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mg/kg = milligram per kilogram

LOCATION	BPS13008	BPS13008	BPS13008	BPS13008	BPS13008
SAMPLE ID	BPS1-SB3008-161.0161.5	BPS1-SB3008-200210	BPS1-SB3008-234.5235.0	BPS1-SB3008-37.037.5	BPS1-SB3008-52.052.5
SAMPLE DATE	8/2/2010	8/3/2010	8/3/2010	8/2/2010	8/2/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	85	82	81	90	77
TOTAL ORGANIC CARBON (%)	0.01 U	--	0.021 J	--	0.038 J
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	30 U	--	27 U	--	32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	30 U	--	27 U	--	32 U
1,1-DICHLOROETHANE	30 U	--	27 U	--	32 U
1,1-DICHLOROETHENE	30 U	--	27 U	--	32 U
1,2-DICHLOROETHANE	30 U	--	27 U	--	32 U
2-BUTANONE	59 U	--	47 U	--	65 U
ACETONE	300 U	--	270 U	--	320 U
BENZENE	30 U	--	27 U	--	32 U
CIS-1,2-DICHLOROETHENE	30 U	--	27 U	--	32 U
DICHLORODIFLUOROMETHANE	59 U	--	55 U	--	65 U
ETHYLBENZENE	30 U	--	27 U	--	32 U
M+P-XYLENES	59 U	--	55 U	--	65 U
METHYLENE CHLORIDE	59 UJ	--	55 UJ	--	65 UJ
O-XYLENE	30 U	--	27 U	--	32 U
TETRACHLOROETHENE	30 U	--	27 U	--	32 U
TOLUENE	30 U	--	27 U	--	32 U
TRANS-1,2-DICHLOROETHENE	30 U	--	27 U	--	32 U
TRICHLOROETHENE	59 U	--	55 U	--	65 U
TRICHLOROFLUOROMETHANE	30 U	--	27 U	--	32 U
VINYL CHLORIDE	30 U	--	27 U	--	32 U
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	15 U	16 U	16 U	14 U	17 U
AROCLOR-1221	15 U	16 U	16 U	14 U	17 U
AROCLOR-1232	15 U	16 U	16 U	14 U	17 U
AROCLOR-1242	15 U	16 U	16 U	14 U	17 U
AROCLOR-1248	7.9 U	8.2 U	8.3 U	73 J	210 J
AROCLOR-1254	15 U	16 U	16 U	14 U	17 U
AROCLOR-1260	15 U	16 U	16 U	14 U	17 U
AROCLOR-1262	15 U	16 U	16 U	14 U	17 U
AROCLOR-1268	7.9 U	8.2 U	8.3 U	7.4 U	8.7 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	5.3 J	--	4.6 J	--	13
GASOLINE RANGE ORGANICS	4.7 U	--	0.11 UJ	--	5.2 U
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13008	BPS13009	BPS13009	BPS13009	BPS13009
SAMPLE ID	BPS1-SB3008-86.587.0	BPS1-SB3009-140.0140.5	BPS1-SB3009-209.0209.5	BPS1-SB3009-27.027.5	BPS1-SB3009-36.036.5
SAMPLE DATE	8/2/2010	7/31/2010	8/1/2010	7/31/2010	7/31/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	82	75	84	94	93
TOTAL ORGANIC CARBON (%)	0.015 J	0.01 U	0.013 J	--	--
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	31 U	33 U	28 U	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	31 U	33 U	28 U	--	--
1,1-DICHLOROETHANE	31 U	33 U	28 U	--	--
1,1-DICHLOROETHENE	31 U	33 U	28 U	--	--
1,2-DICHLOROETHANE	31 U	33 U	28 U	--	--
2-BUTANONE	49 U	66 U	55 U	--	--
ACETONE	310 U	330 U	280 U	--	--
BENZENE	31 U	33 U	28 U	--	--
CIS-1,2-DICHLOROETHENE	31 U	33 U	28 U	--	--
DICHLORODIFLUOROMETHANE	61 U	66 U	55 U	--	--
ETHYLBENZENE	31 U	33 U	28 U	--	--
M+P-XYLENES	61 U	66 U	55 U	--	--
METHYLENE CHLORIDE	61 UJ	66 UJ	55 UJ	--	--
O-XYLENE	31 U	33 U	28 U	--	--
TETRACHLOROETHENE	31 U	33 U	28 U	--	--
TOLUENE	31 U	33 U	28 U	--	--
TRANS-1,2-DICHLOROETHENE	31 U	33 U	28 U	--	--
TRICHLOROETHENE	61 U	66 U	55 U	--	--
TRICHLOROFLUOROMETHANE	31 U	33 U	28 U	--	--
VINYL CHLORIDE	31 U	33 U	28 U	--	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	16 U	17 U	16 U	14 U	14 U
AROCLOR-1221	16 U	17 U	16 U	14 U	14 U
AROCLOR-1232	16 U	17 U	16 U	14 U	14 U
AROCLOR-1242	16 U	17 U	16 U	14 U	14 U
AROCLOR-1248	8.2 U	8.9 U	8 U	250 J	10000 J
AROCLOR-1254	16 U	17 U	16 U	14 U	14 U
AROCLOR-1260	16 U	17 U	16 U	14 U	14 U
AROCLOR-1262	16 U	17 U	16 U	14 U	14 U
AROCLOR-1268	8.2 U	8.9 U	8 U	7.1 U	7.2 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	7.4 J	5.2 J	7 J	--	--
GASOLINE RANGE ORGANICS	4.9 U	5.3 U	4.4 U	--	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13009	BPS13009	BPS13009	BPS13009	BPS13009
SAMPLE ID	BPS1-SB3009-51.051.5	BPS1-SB3009-51.051.5-D	BPS1-SB3009-96.096.5	BPS1-SB3009-DR3	BPS1-SB3009-DR4
SAMPLE DATE	7/31/2010	7/31/2010	7/31/2010	2/28/2011	2/28/2011
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	90	89	88	79	79
TOTAL ORGANIC CARBON (%)	0.01 U	0.012 J	0.01 U	--	--
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	26 U	26 U	28 U	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	26 U	26 U	28 U	--	--
1,1-DICHLOROETHANE	26 U	26 U	28 U	--	--
1,1-DICHLOROETHENE	26 U	26 U	28 U	--	--
1,2-DICHLOROETHANE	26 U	26 U	28 U	--	--
2-BUTANONE	51 U	53 U	57 U	--	--
ACETONE	260 U	260 U	280 U	--	--
BENZENE	26 U	26 U	28 U	--	--
CIS-1,2-DICHLOROETHENE	26 U	26 U	28 U	--	--
DICHLORODIFLUOROMETHANE	51 U	53 U	57 U	--	--
ETHYLBENZENE	26 U	26 U	28 U	--	--
M+P-XYLENES	51 U	53 U	57 U	--	--
METHYLENE CHLORIDE	51 UJ	53 UJ	57 UJ	--	--
O-XYLENE	26 U	26 U	28 U	--	--
TETRACHLOROETHENE	26 U	26 U	28 U	--	--
TOLUENE	26 U	26 U	28 U	--	--
TRANS-1,2-DICHLOROETHENE	26 U	26 U	28 U	--	--
TRICHLOROETHENE	51 U	53 U	57 U	--	--
TRICHLOROFLUOROMETHANE	26 U	26 U	28 U	--	--
VINYL CHLORIDE	26 U	26 U	28 U	--	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	15 U	15 U	15 U	3300 U	17 U
AROCLOR-1221	15 U	15 U	15 U	3300 U	17 U
AROCLOR-1232	15 U	15 U	15 U	3300 U	17 U
AROCLOR-1242	15 U	15 U	15 U	580000 J	17 U
AROCLOR-1248	260 J	230 J	7.6 U	1700 U	850 J
AROCLOR-1254	15 U	15 U	15 U	3300 U	17 U
AROCLOR-1260	15 U	15 U	15 U	3300 U	17 U
AROCLOR-1262	15 U	15 U	15 U	3300 U	17 U
AROCLOR-1268	7.9 U	7.6 U	7.6 U	1700 U	8.5 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	2.9 J	11	3.2 J	--	--
GASOLINE RANGE ORGANICS	4.1 U	4.2 U	4.5 U	--	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

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mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13010	BPS13010	BPS13010	BPS13010	BPS13010
SAMPLE ID	BPS1-SB3010-0008	BPS1-SB3010-118148	BPS1-SB3010-188.0188.5	BPS1-SB3010-49.049.5	BPS1-SB3010-5868
SAMPLE DATE	8/15/2010	8/16/2010	8/17/2010	8/15/2010	8/16/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	96	69	77	85	86
TOTAL ORGANIC CARBON (%)	--	--	0.01 U	0.02 J	--
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	--	--	33 U	29 U	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	33 U	29 U	--
1,1-DICHLOROETHANE	--	--	33 U	29 U	--
1,1-DICHLOROETHENE	--	--	33 U	29 U	--
1,2-DICHLOROETHANE	--	--	33 U	29 U	--
2-BUTANONE	--	--	65 U	59 U	--
ACETONE	--	--	330 U	290 U	--
BENZENE	--	--	33 U	29 U	--
CIS-1,2-DICHLOROETHENE	--	--	33 U	29 U	--
DICHLORODIFLUOROMETHANE	--	--	65 U	59 U	--
ETHYLBENZENE	--	--	33 U	29 U	--
M+P-XYLENES	--	--	65 U	59 U	--
METHYLENE CHLORIDE	--	--	65 U	59 U	--
O-XYLENE	--	--	33 U	29 U	--
TETRACHLOROETHENE	--	--	33 U	29 U	--
TOLUENE	--	--	33 U	29 U	--
TRANS-1,2-DICHLOROETHENE	--	--	33 U	29 U	--
TRICHLOROETHENE	--	--	65 U	59 U	--
TRICHLOROFLUOROMETHANE	--	--	33 U	29 U	--
VINYL CHLORIDE	--	--	33 U	29 U	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	14 U	19 U	17 U	15 U	15 U
AROCLOR-1221	14 U	19 U	17 U	15 U	15 U
AROCLOR-1232	14 U	19 U	17 U	15 U	15 U
AROCLOR-1242	29 J	19 U	17 U	15 U	15 U
AROCLOR-1248	7 U	9.7 U	8.7 U	7.9 U	7.8 U
AROCLOR-1254	14 U	19 U	17 U	15 U	15 U
AROCLOR-1260	10 J	19 U	17 U	15 U	15 U
AROCLOR-1262	14 U	19 U	17 U	15 U	15 U
AROCLOR-1268	7 U	9.7 U	8.7 U	7.9 U	7.8 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	--	--	--	5.9 U	--
GASOLINE RANGE ORGANICS	--	--	--	4.7 U	--
TPH (C06-C10)	--	--	5.2 UJ	--	--
TPH (C10-C28)	--	--	6.5 U	--	--

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

LOCATION	BPS13010	BPS13011	BPS13011	BPS13011	BPS13012
SAMPLE ID	BPS1-SB3010-93.594.0	BPS1-SB3011-1828	BPS1-SB3011-3848	BPS1-SB3011-48.549.0	BPS1-SB3012-112.5113.0
SAMPLE DATE	8/16/2010	8/18/2010	8/18/2010	8/18/2010	8/11/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	76	92	76	90	94
TOTAL ORGANIC CARBON (%)	0.01 U	--	--	0.01 U	0.019 J
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	33 U	--	--	48 U	27 U
1,1,2-TRICHLOROTRIFLUOROETHANE	33 U	--	--	48 U	27 U
1,1-DICHLOROETHANE	33 U	--	--	48 U	27 U
1,1-DICHLOROETHENE	33 U	--	--	48 U	27 U
1,2-DICHLOROETHANE	33 U	--	--	48 U	27 U
2-BUTANONE	66 U	--	--	96 U	53 U
ACETONE	330 U	--	--	480 U	270 U
BENZENE	33 U	--	--	48 U	27 U
CIS-1,2-DICHLOROETHENE	33 U	--	--	48 U	27 U
DICHLORODIFLUOROMETHANE	66 U	--	--	96 U	53 U
ETHYLBENZENE	33 U	--	--	48 U	27 U
M+P-XYLENES	66 U	--	--	96 U	53 U
METHYLENE CHLORIDE	66 U	--	--	96 U	53 U
O-XYLENE	33 U	--	--	48 U	27 U
TETRACHLOROETHENE	33 U	--	--	48 U	27 U
TOLUENE	33 U	--	--	48 U	27 U
TRANS-1,2-DICHLOROETHENE	33 U	--	--	48 U	27 U
TRICHLOROETHENE	66 U	--	--	96 U	53 U
TRICHLOROFLUOROMETHANE	33 U	--	--	48 U	27 U
VINYL CHLORIDE	33 U	--	--	48 U	27 U
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	17 U	14 U	17 U	15 U	14 U
AROCLOR-1221	17 U	14 U	17 U	15 U	14 U
AROCLOR-1232	17 U	14 U	17 U	15 U	14 U
AROCLOR-1242	17 U	14 U	17 U	15 U	14 U
AROCLOR-1248	8.8 U	7.3 U	8.8 U	7.5 U	7.1 U
AROCLOR-1254	17 U	14 U	17 U	15 U	14 U
AROCLOR-1260	17 U	14 U	17 U	15 U	14 U
AROCLOR-1262	17 U	14 U	17 U	15 U	14 U
AROCLOR-1268	8.8 U	7.3 U	8.8 U	7.5 U	7.1 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	6.6 U	--	--	--	5.3 U
GASOLINE RANGE ORGANICS	5.3 U	--	--	--	4.3 U
TPH (C06-C10)	--	--	--	7.7 UJ	--
TPH (C10-C28)	--	--	--	6.8 J	--

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

Appendix D
Soil Analytical Results

LOCATION	BPS13012	BPS13012	BPS13012	BPS13012	BPS13012
SAMPLE ID	BPS1-SB3012-112.5113.0-D	BPS1-SB3012-158168	BPS1-SB3012-203.0203.5	BPS1-SB3012-39.039.5	BPS1-SB3012-4858
SAMPLE DATE	8/11/2010	8/13/2010	8/14/2010	8/9/2010	8/10/2010
MISCELLANEOUS PARAMETERS					
PERCENT SOLIDS (%)	95	81	84	93	83
TOTAL ORGANIC CARBON (%)	0.013 J	--	0.041 J	0.01 U	--
TOTAL SOLIDS (%)	--	--	--	--	--
VOLATILES (UG/KG)					
1,1,1-TRICHLOROETHANE	30 U	--	30 U	24 U	--
1,1,2-TRICHLOROTRIFLUOROETHANE	30 U	--	30 U	24 U	--
1,1-DICHLOROETHANE	30 U	--	30 U	24 U	--
1,1-DICHLOROETHENE	30 U	--	30 U	24 U	--
1,2-DICHLOROETHANE	30 U	--	30 U	24 U	--
2-BUTANONE	59 U	--	59 U	49 U	--
ACETONE	300 U	--	300 U	240 U	--
BENZENE	30 U	--	30 U	24 U	--
CIS-1,2-DICHLOROETHENE	30 U	--	30 U	24 U	--
DICHLORODIFLUOROMETHANE	59 U	--	59 U	49 U	--
ETHYLBENZENE	30 U	--	30 U	24 U	--
M+P-XYLENES	59 U	--	59 U	49 U	--
METHYLENE CHLORIDE	59 U	--	59 U	49 U	--
O-XYLENE	30 U	--	30 U	24 U	--
TETRACHLOROETHENE	30 U	--	30 U	24 U	--
TOLUENE	30 U	--	30 U	24 U	--
TRANS-1,2-DICHLOROETHENE	30 U	--	30 U	24 U	--
TRICHLOROETHENE	59 U	--	59 U	49 U	--
TRICHLOROFLUOROMETHANE	30 U	--	30 U	24 U	--
VINYL CHLORIDE	30 U	--	30 U	24 U	--
PESTICIDES/PCBS (UG/KG)					
AROCLOR-1016	14 U	16 U	15 U	--	16 U
AROCLOR-1221	14 U	16 U	15 U	--	16 U
AROCLOR-1232	14 U	16 U	15 U	--	16 U
AROCLOR-1242	14 U	16 U	14 J	--	16 U
AROCLOR-1248	7 U	8.3 U	7.9 U	--	8.1 U
AROCLOR-1254	14 U	16 U	15 U	--	16 U
AROCLOR-1260	14 U	16 U	15 U	--	16 U
AROCLOR-1262	14 U	16 U	15 U	--	16 U
AROCLOR-1268	7 U	8.3 U	7.9 U	--	8.1 U
PETROLEUM HYDROCARBONS (MG/KG)					
DIESEL RANGE ORGANICS	5.3 U	--	5.9 U	5.4 U	--
GASOLINE RANGE ORGANICS	4.7 U	--	4.7 U	3.9 U	--
TPH (C06-C10)	--	--	--	--	--
TPH (C10-C28)	--	--	--	--	--

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

LOCATION	BPS13012	BPS13012
SAMPLE ID	BPS1-SB3012-5868	BPS1-SB3012-DR5
SAMPLE DATE	8/10/2010	2/28/2011
MISCELLANEOUS PARAMETERS		
PERCENT SOLIDS (%)	88	95
TOTAL ORGANIC CARBON (%)	--	--
TOTAL SOLIDS (%)	--	--
VOLATILES (UG/KG)		
1,1,1-TRICHLOROETHANE	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--
1,1-DICHLOROETHANE	--	--
1,1-DICHLOROETHENE	--	--
1,2-DICHLOROETHANE	--	--
2-BUTANONE	--	--
ACETONE	--	--
BENZENE	--	--
CIS-1,2-DICHLOROETHENE	--	--
DICHLORODIFLUOROMETHANE	--	--
ETHYLBENZENE	--	--
M+P-XYLENES	--	--
METHYLENE CHLORIDE	--	--
O-XYLENE	--	--
TETRACHLOROETHENE	--	--
TOLUENE	--	--
TRANS-1,2-DICHLOROETHENE	--	--
TRICHLOROETHENE	--	--
TRICHLOROFLUOROMETHANE	--	--
VINYL CHLORIDE	--	--
PESTICIDES/PCBS (UG/KG)		
AROCLOR-1016	15 U	14 U
AROCLOR-1221	15 U	14 U
AROCLOR-1232	15 U	14 U
AROCLOR-1242	15 U	14 U
AROCLOR-1248	7.6 U	150 J
AROCLOR-1254	15 U	14 U
AROCLOR-1260	15 U	14 U
AROCLOR-1262	15 U	14 U
AROCLOR-1268	7.6 U	7 U
PETROLEUM HYDROCARBONS (MG/KG)		
DIESEL RANGE ORGANICS	--	--
GASOLINE RANGE ORGANICS	--	--
TPH (C06-C10)	--	--
TPH (C10-C28)	--	--

Notes:

-- = The chemical was not analyzed or no value was available.

J = The chemical was detected but the concentration reported is an es

U = The chemical was not detected.

R = The chemical was rejected.

UG/KG = microgram per kilogram

mg/kg = milligram per kilogram

APPENDIX E

VALIDATION SUMMARIES

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **OCTOBER 11, 2010**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / AROCLOR / PET (GRO & DRO)**
NWIRP BETHPAGE CTO WE44
SDG 50063-1

SAMPLES: 5 / Aqueous / VOC / PET (GRO)

BPS1-TB01	RB-20100719	SB-20100719
TB-20100715	TB-20100717	

9 / Soil / VOC / PET (GRO) / PET (DRO)

BPS1-Dup01-20100717	BPS1-SB3004-154154.5
BPS1-SB3004-235.0235.5	BPS1-SB3004-5454.5
BPS1-SB3004-64.565	BPS1-SB3005-145.0145.5
BPS1-SB3005-232.5233.0	BPS1-SB3005-37.538.0
BPS1-SB3005-54.555.0	

2 / Aqueous / AROCLOR / PCB / PET (DRO)

RB-20100719	SB-20100719

24 / Soil / AROCLOR / PCB

BPS1-Dup01-20100717	BPS1-SB3004-116.0116.5	BPS1-SB3004-154154.5
BPS1-SB3004-180190	BPS1-SB3004-235.0235.5	BPS1-SB3004-27.528
BPS1-SB3004-3434.5	BPS1-SB3004-3737.5	BPS1-SB3004-4242.5
BPS1-SB3004-4747.5	BPS1-SB3004-4949.5	BPS1-SB3004-5454.5
BPS1-SB3004-64.565	BPS1-SB3005-145.0145.5	BPS1-SB3005-180190
BPS1-SB3005-232.5233.0	BPS1-SB3005-27.528.0	BPS1-SB3005-34.034.5
BPS1-SB3005-37.538.0	BPS1-SB3005-43.043.5	BPS1-SB3005-49.049.5
BPS1-SB3005-54.555.0	BPS1-SB3005-57.558.0	BPS1-SB3005-94.595.0

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-1 consisted of twenty-four (24) soil environmental samples, three (3) aqueous trip blanks, one (1) aqueous rinse blank, and one (1) aqueous source water blank. The samples were analyzed for an abbreviated list of volatile organic compounds (VOC), polychlorinated biphenyls (PCB), Petroleum Extractible (PET) Gasoline Range Organics (GRO), & Diesel Range Organics (DRO) as listed above. One field duplicate pair was associated with this sample delivery group (SDG); BPS1-Dup01-20100717 / BPS1-SB3005-145.0145.5.

The samples were collected by Tetra Tech on July 13, 14, 15, 16, 17 and 19, 2010 and analyzed by TriMatrix Laboratories. All analyses were conducted in accordance with EPA Method SW-846 8260B, 8015C, and 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

	• Data Completeness
	• Holding Times
*	• GC/MS Tuning
*	• Initial and Continuing Calibration
	• Laboratory Blank Analyses
	• System Monitoring Compound/Surrogate Recovery
*	• Blank Spike Results
*	• Internal Standard Recoveries
*	• Matrix Spike/Matrix Spike Duplicate Recoveries
*	• Compound Quantitation
*	• Compound Identification
*	• Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile (VOC)

All trip blanks for this SDG were analyzed by the mid-level 5035 Soil Purge & Trap method and were reported in units of mg/kg even though they were aqueous samples. The rinse blank and sample blank were analyzed using a low level 5030B Aqueous Purge & Trap method and the results were reported in units of µg/L.

The following compound was detected in the method blank BLK0721A affecting all SDG samples.

Compound	Maximum Conc. mg/kg	Action Level mg/kg
Acetone	0.14	1.40
2-Butanone	0.088	0.880

An action level of 10X the maximum concentration for the common laboratory contaminant acetone and 2-butanone was established to evaluate laboratory contamination. Dilution factors, sample aliquots and percent solids for soils, if applicable, were taken into consideration during the application of all action levels. The positive results for acetone below the blank action level were qualified as non-detected, (U). The trip blanks, rinse blank, and source water blank were not qualified due to method blank contamination.

PCBs

Some samples were analyzed both undiluted and diluted due to Aroclors which exceeded the highest calibration standard. The non-detect Aroclor results were reported from the undiluted analyses. The samples and the dilutions are listed below.

Samples	Dilution
BPS1-SB3005-54.555.0	1X, 5X, 500X
BPS1-SB3005-57.558.0	1X, 10X, 400X

The sample BPS1-SB3005-94.595.0 Aroclor-1248 positive result was qualified estimated, (J), as the relative percent difference (RPD) between the analytical columns DB-35 and DB-XLB for the result was greater than the 25% quality control limit.

The percent recovery (%R) was less than the quality control limit for the surrogate decachlorobiphenyl for sample BPS1-SB3005-57.558.0 re-analysis for column DB-35. The %R was within the quality control limits for column DB-XLB. The non-detected results were not reported from this sample dilution re-analysis and the positive result for Aroclor-1260 reported from the DB-35 column was qualified estimated, (J).

The %R was less than the quality control limit for the surrogate decachlorobiphenyl (DCB) for sample BPS1-SB3005-57.558.0 for both the chromatography columns DB-35 and DB-XLB. The non-detected Aroclor results were qualified estimated, (UJ). The positive Aroclor results were not qualified as the results were not reported from this analysis as they were greater than the highest standard on the calibration curve.

The continuing calibration verification (CCV) percent differences (%D) were not calculated by the laboratory for a number of the CCVs. The calculations were performed manually to verify the %Ds were within the quality control limits.

Multiple CCV percent recoveries (%R) for the surrogate decachlorobiphenyl (DCB) were either less than the quality control limit or greater than the quality control limit on either or both of the chromatography columns DB-35 and DB-XLB for a number of calibration check CCVs. No action was required for these issues.

The %R was less than the quality control limit for the surrogate decachlorobiphenyl for sample BPS1-SB3005-54.555.0 for column DB-35. The %R was within the quality control limits for column DB-XLB. Therefore, the non-detected Aroclor results for the sample were not qualified. The positive Aroclor results were not qualified as the positive Aroclor results were not reported from this analysis as they were greater than the highest standard on the calibration curve.

DRO

The blank had DRO result detected in the method blank associated with batch 1007021 affecting all SDG soil samples.

Compound	Maximum Conc. mg/kg	Action Level mg/kg
Diesel Range Organics	2.5	12.5

An action level of 5X the maximum concentration for the laboratory contaminant was established to evaluate laboratory contamination. Dilution factors and sample aliquots and percent solids for soils, if applicable, were taken into consideration during the application of all action levels. The positive results for DRO below the blank action level were qualified as non-detected, (U). All samples had positive DRO detections which were qualified due to method blank contamination.

GRO

The sample to analysis hold time of 14 days was exceeded by <2X for samples BPS1-TB01, TB-20100715, and TB-20100717. The samples had non-detected GRO results which were qualified estimated, (UJ).

The surrogate %R was greater than the quality control limit for sample TB-20100715. No action was taken as the GRO result for the sample was non-detected.

Additional Comments

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC method blank contamination resulted in qualification of sample acetone results. An Aroclor-1248 positive result for sample BPS1-SB3005-94.595.0 was qualified due to a column RPD quality control limit exceedance. An Aroclor-1260 positive result was qualified due to a %R surrogate quality control limit exceedance. A low surrogate % recovery for DCB resulted in the qualification of non-detected PCB results for sample BPS1-SB3005-57.558.0. DRO method blank contamination resulted in qualification of sample DRO results. Sample GRO non-detected results were qualified due exceeding the sample to analysis hold time.

Other Factors Affecting Data Quality: Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the Organic Data Validation (10/99), USEPA Region II Standard Operating Procedures for Validating Volatile Organic Compounds by SW-846 Method 8260B (October 2006), validating PCB compounds by SW-846 Method 8082A (Oct. 2006), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

TetraTech NUS
Joseph Kaliniyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-TB01			RB-20100719			SB-20100719			TB-20100715		
SDG: 50063-1	LAB_ID	1007174-09			1007235-07			1007235-08			1007222-03		
FRACTION: OV	SAMP_DATE	7/14/2010			7/19/2010			7/19/2010			7/15/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			UG/L			UG/L			MG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.025	U		0.5	U		0.5	U		0.025	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.025	U		0.5	U		0.5	U		0.025	U	
1,1-DICHLOROETHANE		0.025	U		0.5	U		0.5	U		0.025	U	
1,1-DICHLOROETHENE		0.025	U		0.5	U		0.5	U		0.025	U	
1,2-DICHLOROETHANE		0.025	U		0.5	U		0.5	U		0.025	U	
2-BUTANONE		0.05	U		1.1	J	P	1	U		0.05	U	
ACETONE		0.24	J	P	30			2.3	J	P	0.22	J	P
BENZENE		0.025	U		0.5	U		0.5	U		0.025	U	
CIS-1,2-DICHLOROETHENE		0.025	U		0.5	U		0.5	U		0.025	U	
DICHLORODIFLUOROMETHANE		0.05	U		0.5	U		0.5	U		0.05	U	
ETHYLBENZENE		0.025	U		0.5	U		0.5	U		0.025	U	
M+P-XYLENES		0.05	U		0.5	U		0.5	U		0.05	U	
METHYLENE CHLORIDE		0.05	U		0.5	U		0.5	U		0.05	U	
O-XYLENE		0.025	U		0.5	U		0.5	U		0.025	U	
TETRACHLOROETHENE		0.025	U		0.5	U		0.5	U		0.025	U	
TOLUENE		0.025	U		0.5	U		0.5	U		0.025	U	
TRANS-1,2-DICHLOROETHENE		0.025	U		0.5	U		0.5	U		0.025	U	
TRICHLOROETHENE		0.05	U		0.25	U		0.25	U		0.05	U	
TRICHLOROFLUOROMETHANE		0.025	U		0.5	U		0.5	U		0.025	U	
VINYL CHLORIDE		0.025	U		0.25	U		0.25	U		0.025	U	

PROJ_NO: 02230 SDG: 50063-1 FRACTION: OV MEDIA: WATER	NSAMPLE	TB-20100717		
	LAB_ID	1007235-01		
	SAMP_DATE	7/17/2010		
	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.025	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.025	U	
1,1-DICHLOROETHANE		0.025	U	
1,1-DICHLOROETHENE		0.025	U	
1,2-DICHLOROETHANE		0.025	U	
2-BUTANONE		0.05	U	
ACETONE		0.23	J	P
BENZENE		0.025	U	
CIS-1,2-DICHLOROETHENE		0.025	U	
DICHLORODIFLUOROMETHANE		0.05	U	
ETHYLBENZENE		0.025	U	
M+P-XYLENES		0.05	U	
METHYLENE CHLORIDE		0.05	U	
O-XYLENE		0.025	U	
TETRACHLOROETHENE		0.025	U	
TOLUENE		0.025	U	
TRANS-1,2-DICHLOROETHENE		0.025	U	
TRICHLOROETHENE		0.05	U	
TRICHLOROFLUOROMETHANE		0.025	U	
VINYL CHLORIDE		0.025	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup01-20100717			BPS1-SB3004-154154.5			BPS1-SB3004-235.0235.5			BPS1-SB3004-5454.5		
SDG: 50063-1	LAB_ID	1007235-06			1007174-10			1007222-04			1007174-07		
FRACTION: OV	SAMP_DATE	7/17/2010			7/14/2010			7/15/2010			7/14/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	76.0			87.0			86.0			91.0		
	DUP_OF	BPS1-SB3005-145.0145.5											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.033	U		0.029	U		0.029	U		0.026	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.033	U		0.029	U		0.029	U		0.026	U	
1,1-DICHLOROETHANE		0.033	U		0.029	U		0.029	U		0.026	U	
1,1-DICHLOROETHENE		0.033	U		0.029	U		0.029	U		0.026	U	
1,2-DICHLOROETHANE		0.033	U		0.029	U		0.029	U		0.026	U	
2-BUTANONE		0.066	U		0.058	U		0.058	U		0.051	U	
ACETONE		0.22	U	A	0.21	U	A	0.25	U	A	0.2	U	A
BENZENE		0.033	U		0.029	U		0.029	U		0.026	U	
CIS-1,2-DICHLOROETHENE		0.033	U		0.029	U		0.029	U		0.026	U	
DICHLORODIFLUOROMETHANE		0.066	U		0.058	U		0.058	U		0.051	U	
ETHYLBENZENE		0.033	U		0.029	U		0.029	U		0.026	U	
M+P-XYLENES		0.066	U		0.058	U		0.058	U		0.051	U	
METHYLENE CHLORIDE		0.066	U		0.058	U		0.058	U		0.051	U	
O-XYLENE		0.033	U		0.029	U		0.029	U		0.026	U	
TETRACHLOROETHENE		0.033	U		0.029	U		0.029	U		0.026	U	
TOLUENE		0.033	U		0.029	U		0.029	U		0.026	U	
TRANS-1,2-DICHLOROETHENE		0.033	U		0.029	U		0.029	U		0.026	U	
TRICHLOROETHENE		0.066	U		0.058	U		0.058	U		0.051	U	
TRICHLOROFLUOROMETHANE		0.033	U		0.029	U		0.029	U		0.026	U	
VINYL CHLORIDE		0.033	U		0.029	U		0.029	U		0.026	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-64.565			BPS1-SB3005-145.0145.5			BPS1-SB3005-232.5233.0			BPS1-SB3005-37.538.0		
SDG: 50063-1	LAB_ID	1007174-08			1007235-03			1007235-05			1007222-06		
FRACTION: OV	SAMP_DATE	7/14/2010			7/17/2010			7/17/2010			7/16/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	82.0			77.0			85.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.031	U		0.029	U		0.029	U		0.023	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.031	U		0.029	U		0.029	U		0.023	U	
1,1-DICHLOROETHANE		0.031	U		0.029	U		0.029	U		0.023	U	
1,1-DICHLOROETHENE		0.031	U		0.029	U		0.029	U		0.023	U	
1,2-DICHLOROETHANE		0.031	U		0.029	U		0.029	U		0.023	U	
2-BUTANONE		0.061	U		0.057	U		0.059	U		0.047	U	
ACETONE		0.22	U	A	0.21	U	A	0.24	U	A	0.19	U	A
BENZENE		0.031	U		0.029	U		0.029	U		0.023	U	
CIS-1,2-DICHLOROETHENE		0.031	U		0.029	U		0.029	U		0.023	U	
DICHLORODIFLUOROMETHANE		0.061	U		0.057	U		0.059	U		0.047	U	
ETHYLBENZENE		0.031	U		0.029	U		0.029	U		0.023	U	
M+P-XYLENES		0.061	U		0.057	U		0.059	U		0.047	U	
METHYLENE CHLORIDE		0.061	U		0.057	U		0.059	U		0.047	U	
O-XYLENE		0.031	U		0.029	U		0.029	U		0.023	U	
TETRACHLOROETHENE		0.031	U		0.029	U		0.029	U		0.023	U	
TOLUENE		0.031	U		0.029	U		0.029	U		0.023	U	
TRANS-1,2-DICHLOROETHENE		0.031	U		0.029	U		0.029	U		0.023	U	
TRICHLOROETHENE		0.061	U		0.057	U		0.059	U		0.047	U	
TRICHLOROFLUOROMETHANE		0.031	U		0.029	U		0.029	U		0.023	U	
VINYL CHLORIDE		0.031	U		0.029	U		0.029	U		0.023	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3005-54.555.0
SDG: 50063-1	LAB_ID	1007222-08
FRACTION: OV	SAMP_DATE	7/16/2010
MEDIA: SOIL	QC_TYPE	NM
	UNITS	MG/KG
	PCT_SOLIDS	87.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.026	J	P
1,1,2-TRICHLOROTRIFLUOROETHANE	0.029	U	
1,1-DICHLOROETHANE	0.029	U	
1,1-DICHLOROETHENE	0.029	U	
1,2-DICHLOROETHANE	0.029	U	
2-BUTANONE	0.057	U	
ACETONE	0.25	U	A
BENZENE	0.029	U	
CIS-1,2-DICHLOROETHENE	0.029	U	
DICHLORODIFLUOROMETHANE	0.057	U	
ETHYLBENZENE	0.029	U	
M+P-XYLENES	0.057	U	
METHYLENE CHLORIDE	0.057	U	
O-XYLENE	0.029	U	
TETRACHLOROETHENE	0.12		
TOLUENE	0.029	U	
TRANS-1,2-DICHLOROETHENE	0.029	U	
TRICHLOROETHENE	0.057	U	
TRICHLOROFLUOROMETHANE	0.029	U	
VINYL CHLORIDE	0.029	U	

PROJ_NO: 02230 SDG: 50063-1 FRACTION: PEST/PCB MEDIA: WATER	NSAMPLE	RB-20100719			SB-20100719		
	LAB_ID	1007235-07			1007235-08		
	SAMP_DATE	7/19/2010			7/19/2010		
	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.085	U		0.08	U	
AROCLOR-1221		0.085	U		0.08	U	
AROCLOR-1232		0.043	U		0.04	U	
AROCLOR-1242		0.085	U		0.08	U	
AROCLOR-1248		0.085	U		0.08	U	
AROCLOR-1254		0.085	U		0.08	U	
AROCLOR-1260		0.085	U		0.08	U	
AROCLOR-1262		0.085	U		0.08	U	
AROCLOR-1268		0.085	U		0.08	U	

PROJ_NO: 02230 SDG: 50063-1 FRACTION: PEST/PCB MEDIA: SOIL	NSAMPLE	BPS1-Dup01-20100717			BPS1-SB3004-116.0116.5			BPS1-SB3004-154154.5			BPS1-SB3004-180190		
	LAB_ID	1007235-06			1007222-01			1007174-10			1007222-02		
	SAMP_DATE	7/17/2010			7/14/2010			7/14/2010			7/14/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	76.0			81.0			87.0			81.0		
	DUP_OF	BPS1-SB3005-145.0145.5											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.017	U		0.016	U		0.015	U		0.016	U	
AROCLOR-1221		0.017	U		0.016	U		0.015	U		0.016	U	
AROCLOR-1232		0.017	U		0.016	U		0.015	U		0.016	U	
AROCLOR-1242		0.017	U		0.016	U		0.015	U		0.016	U	
AROCLOR-1248		0.0088	U		0.0083	U		0.0077	U		0.0082	U	
AROCLOR-1254		0.017	U		0.016	U		0.015	U		0.016	U	
AROCLOR-1260		0.017	U		0.016	U		0.015	U		0.016	U	
AROCLOR-1262		0.017	U		0.016	U		0.015	U		0.016	U	
AROCLOR-1268		0.0088	U		0.0083	U		0.0077	U		0.0082	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-235.0235.5			BPS1-SB3004-27.528			BPS1-SB3004-3434.5			BPS1-SB3004-3737.5		
SDG: 50063-1	LAB_ID	1007222-04			1007174-01			1007174-02			1007174-03		
FRACTION: PEST/PCB	SAMP_DATE	7/15/2010			7/13/2010			7/14/2010			7/14/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	86.0			96.0			94.0			93.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.015	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1221		0.015	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1232		0.015	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1242		0.015	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1248		0.0078	U		0.007	U		0.0071	U		0.0072	U	
AROCLOR-1254		0.015	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1260		0.015	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1262		0.015	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1268		0.0078	U		0.007	U		0.0071	U		0.0072	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-4242.5			BPS1-SB3004-4747.5			BPS1-SB3004-4949.5			BPS1-SB3004-5454.5		
SDG: 50063-1	LAB_ID	1007174-04			1007174-05			1007174-06			1007174-07		
FRACTION: PEST/PCB	SAMP_DATE	7/14/2010			7/14/2010			7/14/2010			7/14/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	83.0			88.0			85.0			91.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U		0.015	U		0.015	U		0.014	U	
AROCLOR-1221		0.016	U		0.015	U		0.015	U		0.014	U	
AROCLOR-1232		0.016	U		0.015	U		0.015	U		0.014	U	
AROCLOR-1242		0.016	U		0.015	U		0.015	U		0.014	U	
AROCLOR-1248		0.0081	U		0.0076	U		0.0078	U		0.0073	U	
AROCLOR-1254		0.016	U		0.015	U		0.015	U		0.014	U	
AROCLOR-1260		0.016	U		0.015	U		0.015	U		0.014	U	
AROCLOR-1262		0.016	U		0.015	U		0.015	U		0.014	U	
AROCLOR-1268		0.0081	U		0.0076	U		0.0078	U		0.0073	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-64.565			BPS1-SB3005-145.0145.5			BPS1-SB3005-180190			BPS1-SB3005-232.5233.0		
SDG: 50063-1	LAB_ID	1007174-08			1007235-03			1007235-04			1007235-05		
FRACTION: PEST/PCB	SAMP_DATE	7/14/2010			7/17/2010			7/17/2010			7/17/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	82.0			77.0			76.0			85.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U		0.017	U		0.017	U		0.015	U	
AROCLOR-1221		0.016	U		0.017	U		0.017	U		0.015	U	
AROCLOR-1232		0.016	U		0.017	U		0.017	U		0.015	U	
AROCLOR-1242		0.016	U		0.017	U		0.017	U		0.015	U	
AROCLOR-1248		0.0082	U		0.0087	U		0.0088	U		0.0079	U	
AROCLOR-1254		0.016	U		0.017	U		0.017	U		0.015	U	
AROCLOR-1260		0.016	U		0.017	U		0.017	U		0.015	U	
AROCLOR-1262		0.016	U		0.017	U		0.017	U		0.015	U	
AROCLOR-1268		0.0082	U		0.0087	U		0.0088	U		0.0079	U	

PROJ_NO: 02230 SDG: 50063-1 FRACTION: PEST/PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3005-27.528.0			BPS1-SB3005-34.034.5			BPS1-SB3005-37.538.0			BPS1-SB3005-43.043.5		
	LAB_ID	1007222-05			1007222-07			1007222-06			1007222-09		
	SAMP_DATE	7/16/2010			7/16/2010			7/16/2010			7/16/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			92.0			96.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.018	J	P
AROCLOR-1248		0.0073	U		0.0073	U		0.007	U		0.0076	U	
AROCLOR-1254		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1268		0.0073	U		0.0073	U		0.007	U		0.0076	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3005-49.049.5			BPS1-SB3005-54.555.0			BPS1-SB3005-54.555.0-RE			BPS1-SB3005-54.555.0-RE2		
SDG: 50063-1	LAB_ID	1007222-10			1007222-08			1007222-08RE1			1007222-08RE2		
FRACTION: PEST/PCB	SAMP_DATE	7/16/2010			7/16/2010			7/16/2010			7/16/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			87.0			87.0			87.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.015	U							
AROCLOR-1221		0.014	U		0.015	U							
AROCLOR-1232		0.014	U		0.015	U							
AROCLOR-1242		0.014	U								160	J	P
AROCLOR-1248		0.0073	U		0.0077	U							
AROCLOR-1254		0.014	U		0.015	U							
AROCLOR-1260		0.014	U					0.91	J	P			
AROCLOR-1262		0.014	U		0.015	U							
AROCLOR-1268		0.0073	U		0.0077	U							

PROJ_NO: 02230	NSAMPLE	BPS1-SB3005-57.558.0			BPS1-SB3005-57.558.0-RE			BPS1-SB3005-57.558.0-RE2			BPS1-SB3005-94.595.0		
SDG: 50063-1	LAB_ID	1007222-11			1007222-11RE1			1007222-11RE2			1007235-02		
FRACTION: PEST/PCB	SAMP_DATE	7/16/2010			7/16/2010			7/16/2010			7/16/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			92.0			92.0			80.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	UJ	R							0.016	U	
AROCLOR-1221		0.014	UJ	R							0.016	U	
AROCLOR-1232		0.014	UJ	R							0.016	U	
AROCLOR-1242					110	J	P				0.016	U	
AROCLOR-1248		0.0073	UJ	R									
AROCLOR-1254		0.014	UJ	R							0.016	U	
AROCLOR-1260								0.8	J	PR	0.016	U	
AROCLOR-1262		0.014	UJ	R							0.016	U	
AROCLOR-1268		0.0073	UJ	R							0.0083	U	

PROJ_NO: 02230 SDG: 50063-1 FRACTION: PEST/PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3005-94.595.0-RE		
	LAB_ID	1007235-02RE1		
	SAMP_DATE	7/16/2010		
	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	80.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016				
AROCLOR-1221				
AROCLOR-1232				
AROCLOR-1242				
AROCLOR-1248		0.016	J	PU
AROCLOR-1254				
AROCLOR-1260				
AROCLOR-1262				
AROCLOR-1268				

PROJ_NO: 02230	NSAMPLE	BPS1-TB01			RB-20100719			SB-20100719			TB-20100715		
SDG: 50063-1	LAB_ID	1007174-09			1007235-07			1007235-08			1007222-03		
FRACTION: PET	SAMP_DATE	7/14/2010			7/19/2010			7/19/2010			7/15/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			UG/L			UG/L			MG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS					68	J	P	200	U				
GASOLINE RANGE ORGANICS		4	UJ	H	50	U		50	U		4	UJ	H

PROJ_NO: 02230	NSAMPLE	TB-20100717		
SDG: 50063-1	LAB_ID	1007235-01		
FRACTION: PET	SAMP_DATE	7/17/2010		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DIESEL RANGE ORGANICS				
GASOLINE RANGE ORGANICS		4	UJ	H

PROJ_NO: 02230	NSAMPLE	BPS1-Dup01-20100717			BPS1-SB3004-154154.5			BPS1-SB3004-235.0235.5			BPS1-SB3004-5454.5		
SDG: 50063-1	LAB_ID	1007235-06			1007174-10			1007222-04			1007174-07		
FRACTION: PET	SAMP_DATE	7/17/2010			7/14/2010			7/15/2010			7/14/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	76.0			87.0			86.0			91.0		
	DUP_OF	BPS1-SB3005-145.0145.5											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		6.9	U	A	8.4	U	A	4.7	U	A	4.7	U	A
GASOLINE RANGE ORGANICS		5.3	U		4.6	U		4.7	U		4.4	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-64.565			BPS1-SB3005-145.0145.5			BPS1-SB3005-232.5233.0			BPS1-SB3005-37.538.0		
SDG: 50063-1	LAB_ID	1007174-08			1007235-03			1007235-05			1007222-06		
FRACTION: PET	SAMP_DATE	7/14/2010			7/17/2010			7/17/2010			7/16/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	82.0			77.0			85.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		5	U	A	6.1	U	A	4.1	U	A	1.9	U	A
GASOLINE RANGE ORGANICS		4.9	U		5.2	U		4.7	U		4.2	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3005-54.555.0		
SDG: 50063-1	LAB_ID	1007222-08		
FRACTION: PET	SAMP_DATE	7/16/2010		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	87.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		8.5	U	A
GASOLINE RANGE ORGANICS		4.6	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: R. SOK **DATE: OCTOBER 11, 2010**

FROM: DANIELLE M. BAUGHMAN **COPIES: DV FILE**

SUBJECT: INORGANIC DATA VALIDATION – TOTAL ORGANIC CARBON (TOC) and TOTAL SOLIDS
NWIRP BEHTPAGE
SAMPLE DELIVERY GROUP (SDG) – 50063-1

SAMPLES: 24/Solids/

BPS1-Dup01-20100717	BPS1-SB3004-116.0116.5	BPS1-SB3004-154154.5
BPS1-SB3004-180190	BPS1-SB3004-235.0235.5	BPS1-SB3004-27.528
BPS1-SB3004-3434.5	BPS1-SB3004-3737.5	BPS1-SB3004-4242.5
BPS1-SB3004-4747.5	BPS1-SB3004-4949.5	BPS1-SB3004-5454.5
BPS1-SB3004-64.565	BPS1-SB3005-145.0145.5	BPS1-SB3005-180190
BPS1-SB3005-232.5233.0	BPS1-SB3005-27.528.0	BPS1-SB3005-34.034.5
BPS1-SB3005-37.538.0	BPS1-SB3005-43.043.5	BPS1-SB3005-49.049.5
BPS1-SB3005-54.555.0	BPS1-SB3005-57.558.0	BPS1-SB3005-94.595.0

2/Aqueous/

RB-20100719 SB-20100719

Overview

The sample set for NWIRP Bethpage, SDG 022HG, consists of twenty-four (24) soil environmental samples, one (1) rinse blank and one (1) source blank. One field duplicate pair (BPS1-Dup01-20100717/BPSI-SB3005-145.0145.5) was included within this SDG.

All soil samples were analyzed for total solids, nine soil samples were analyzed for total organic carbon, and the aqueous samples were analyzed for total organic carbon. The samples were collected by Tetra Tech NUS on July 13,14,15,16,17, and 19, 2010 and analyzed by Trimatrix Laboratories. Analyses were conducted using SW-846 Method 9060 and 3550B.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibrations
* • Laboratory Method Blank Analyses
* • Laboratory Control Sample Results
* • Field Duplicate Results
* • Detection Limits
* • Analyte Quantitation

* - All quality control criteria were met for this parameter.

Problems affecting data quality are discussed below; documentation supporting these findings is

presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

TOC

Positive results greater than the detection limit (DL), but less than the limit of quantitation (LOQ) were qualified as estimated "J".

Notes

Executive Summary

Laboratory Performance: None to report.

Other Factors Affecting Data Quality: Positive results greater than the DL, but less than the LOQ were qualified.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review", October 2004 and the DOD document entitled "Quality System Manual (QSM) for Environmental Laboratories" (January 2006).

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Danielle M. Baughman
Project Engineer

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	RB-20100719			SB-20100719		
SDG: 50063-1	LAB_ID	1007235-07			1007235-08		
FRACTION: MISC	SAMP_DATE	7/19/2010			7/19/2010		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		1.1			0.17	J	P

PROJ_NO: 02230	NSAMPLE	BPS1-Dup01-20100717			BPS1-SB3004-116.0116.5			BPS1-SB3004-154154.5			BPS1-SB3004-180190		
SDG: 50063-1	LAB_ID	1007235-06			1007222-01			1007174-10			1007222-02		
FRACTION: MISC	SAMP_DATE	7/17/2010			7/14/2010			7/14/2010			7/14/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	76.0			81.0			87.0			81.0		
	DUP_OF	BPS1-SB3005-145.0145.5											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		0.024	J	P				0.012	U				
TOTAL SOLIDS		76			81			87			81		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-235.0235.5			BPS1-SB3004-27.528			BPS1-SB3004-3434.5			BPS1-SB3004-3737.5		
SDG: 50063-1	LAB_ID	1007222-04			1007174-01			1007174-02			1007174-03		
FRACTION: MISC	SAMP_DATE	7/15/2010			7/13/2010			7/14/2010			7/14/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	86.0			96.0			94.0			93.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		0.086	J	P									
TOTAL SOLIDS		86			96			94			93		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-4242.5			BPS1-SB3004-4747.5			BPS1-SB3004-4949.5			BPS1-SB3004-5454.5		
SDG: 50063-1	LAB_ID	1007174-04			1007174-05			1007174-06			1007174-07		
FRACTION: MISC	SAMP_DATE	7/14/2010			7/14/2010			7/14/2010			7/14/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	83.0			88.0			85.0			91.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON											0.011	U	
TOTAL SOLIDS		83			88			85			91		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3004-64.565			BPS1-SB3005-145.0145.5			BPS1-SB3005-180190			BPS1-SB3005-232.5233.0		
SDG: 50063-1	LAB_ID	1007174-08			1007235-03			1007235-04			1007235-05		
FRACTION: MISC	SAMP_DATE	7/14/2010			7/17/2010			7/17/2010			7/17/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	82.0			77.0			76.0			85.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		0.012	U		0.026	J	P				0.022	J	P
TOTAL SOLIDS		82			77			76			85		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3005-27.528.0			BPS1-SB3005-34.034.5			BPS1-SB3005-37.538.0			BPS1-SB3005-43.043.5		
SDG: 50063-1	LAB_ID	1007222-05			1007222-07			1007222-06			1007222-09		
FRACTION: MISC	SAMP_DATE	7/16/2010			7/16/2010			7/16/2010			7/16/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	92.0			92.0			96.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON								0.085	J	P			
TOTAL SOLIDS		92			92			96			88		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3005-49.049.5			BPS1-SB3005-54.555.0			BPS1-SB3005-57.558.0			BPS1-SB3005-94.595.0		
SDG: 50063-1	LAB_ID	1007222-10			1007222-08			1007222-11			1007235-02		
FRACTION: MISC	SAMP_DATE	7/16/2010			7/16/2010			7/16/2010			7/16/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	92.0			87.0			92.0			80.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL ORGANIC CARBON					1								
TOTAL SOLIDS		92			87			92			80		

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **OCTOBER 11, 2010**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / PCB / GRO / DRO**
NWIRP BETHPAGE CTO WE44
SDG 50063-2

SAMPLES: 5 / Aqueous / VOC / GRO

BPS1-TB-20100727
BPS1-TB04-20100729
BPS1-TB05-2010731
BPS1-TB06-20100802
RB-20100802

1 / Aqueous / DRO / TOC

RB-20100802

18 / Soil / VOC / GRO / DRO / TOC

BPS1-Dup02-20100728
BPS1-Dup04-20100731
BPS1-SB3006-117.0117.5
BPS1-SB3006-181.0181.5
BPS1-SB3006-226.5227.0
BPS1-SB3006-53.053.5
BPS1-SB3007-100.0100.5
BPS1-SB3007-217.5218.0
BPS1-SB3007-37.538.0
BPS1-SB3007-57.057.5
BPS1-SB3008-161.0161.5
BPS1-SB3008-234.5235.0
BPS1-SB3008-52.052.5
BPS1-SB3008-86.587.0
BPS1-SB3009-140.0140.5
BPS1-SB3009-209.0209.5
BPS1-SB3009-51.051.5
BPS1-SB3009-96.096.5

27 / Soil / PCB (AROCLOR)

BPS1-Dup02-20100728
BPS1-Dup03-20100727
BPS1-Dup04-20100731
BPS1-SB3006-117.0117.5
BPS1-SB3006-181.0181.5
BPS1-SB3006-226.5227.0
BPS1-SB3006-32.032.5
BPS1-SB3006-53.053.5
BPS1-SB3006-72.072.5
BPS1-SB3007-100.0100.5
BPS1-SB3007-140150
BPS1-SB3007-217.5218.0
BPS1-SB3007-240.250
BPS1-SB3007-37.538.0
BPS1-SB3007-57.057.5
BPS1-SB3008-161.0161.5
BPS1-SB3008-200210
BPS1-SB3008-234.5235.0
BPS1-SB3008-37.037.5
BPS1-SB3008-52.052.5
BPS1-SB3008-86.587.0
BPS1-SB3009-140.0140.5
BPS1-SB3009-209.0209.5
BPS1-SB3009-27.027.5
BPS1-SB3009-36.036.5
BPS1-SB3009-51.051.5
BPS1-SB3009-96.096.5

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-2 consisted of twenty-seven (27) soil environmental samples, four (4) aqueous trip blanks, and one (1) aqueous rinse blank. The samples were analyzed for an abbreviated list of volatile organic compounds (VOC), polychlorinated biphenyls (PCB), Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and total organic carbon (TOC) as listed above. Three field duplicate pairs were associated with this sample delivery group (SDG); BPS1-Dup02-20100728 / BPS1-SB3006-181.0181.5, BPS1-Dup03-20100727 / BPS1-SB3006-32.032.5, and BPS1-Dup04-20100731 / BPS1-SB3009-51.051.5.

The samples were collected by Tetra Tech on July 27, 28, 29, 30, 31 and August 1, 2, and 3, 2010 and analyzed by TriMatrix Laboratories. All analyses were conducted in accordance with EPA Method SW-846 8260B, 8015C, 9060, and 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

	• Data Completeness
*	• Holding Times
*	• GC/MS Tuning
	• Initial and Continuing Calibration
	• Laboratory Blank Analyses
*	• System Monitoring Compound/Surrogate Recovery
*	• Blank Spike Results
*	• Internal Standard Recoveries
*	• Matrix Spike/Matrix Spike Duplicate Recoveries
*	• Field Duplicate Results
*	• Compound Quantitation
*	• Compound Identification
*	• Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

All trip blanks for this SDG were analyzed by the mid-level 5035 Soil Purge & Trap method and were reported in units of mg/kg even though they were aqueous samples. The rinse blank was analyzed using a low level 5030B Aqueous Purge & Trap method and the results were reported in units of µg/L. Only the trip blank results were used to qualify soil samples for blank contamination.

The following compound was detected in the trip blank BPS1-TB-20100727 affecting all SDG soil samples.

Compound	Maximum Concentration	Action Level
2-Butanone	0.056 mg/kg	0.560 mk/kg

An action level of 10X the maximum concentration for the common laboratory contaminant 2-butanone was established to evaluate laboratory contamination. Dilution factors, sample aliquots, and percent solids for soils, if applicable, were taken into consideration during the application of all action levels. The positive results for 2-butanone below the blank action

level were qualified as non-detected (U). The quality control sample trip and rinse blanks were not qualified for method blank contamination.

The initial calibration linear calibration r value was less than the 0.995 quality for methylene chloride for instrument 224 on 08/03/10 for the mid-level 5035 Soil Purge & Trap method calibration 0H05022 used for the methanol preserved soil VOC analyses affecting all soil sample analyses. The non-detected methylene chloride results for all the soil samples were qualified estimated, (UJ),

PCB

The continuing calibration verification (CCV) percent differences (%D) were not calculated by the laboratory for a number of the CCVs. The calculations were performed manually to verify the %Ds were within the quality control limits.

Some sample Form 1s did not have the Aroclor-1248 reported on the Form 1 for the initial column analysis even though Aroclor -1248 was detected. This was due to the fact that the initial analysis was performed on an instrument that had only a 1 point calibration level for Aroclor -1248. All samples with initial analysis positive Aroclor -1248 detections were re-analyzed on an instrument that was calibrated at multiply levels for Aroclor -1248 and the result from this analysis was reported in the EDD.

The Aroclor -1248 opening and closing continuing calibration verification data was not initially submitted by the laboratory for 08/12/10 @ 22:26 and 08/13/10 @ 02:28. The laboratory was contacted and they submitted the missing data.

The higher of the two column positive results was reported in the EDD by the laboratory.

Three samples were analyzed both undiluted and diluted due to a Aroclor -1248 result which exceeded the highest calibration level in the undiluted sample analysis. The non-detected Aroclor results were reported from the undiluted analyses and the Aroclor -1248 results were reported from the dilution analyses. The samples requiring dilution and the dilutions are listed below.

Samples	Dilution
BPS1-Dup03-20100727	1X, 50X
BPS1-SB3006-32.032.5	1X, 50X
BPS1-SB3009-36.036.5	1X, 50X

DRO

No issues were identified.

GRO

The continuing calibration verification %D for the GRO analysis was greater than the quality control limit of 15% for instrument 140 for 08/12/10 @ 05:07 affecting sample BPS1-SB3008-234.5235.0. The sample non-detected GRO result was qualified estimated, (UJ).

Additional Comments

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC method blank contamination resulted in qualification of sample 2-butanone results. All methylene chloride results were qualified due to the r value for the initial linear calibration was less than the quality control limit. Sample BPS1-SB3008-234.5235.0 GRO non-detected result was qualified due to a CCV exceeding the quality control limit.

Other Factors Affecting Data Quality: Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the Organic Data Validation (10/99), USEPA Region II Standard Operating Procedures for Validating Volatile Organic Compounds by SW-846 Method 8260B (October 2006), validating PCB compounds by SW-846 Method 8082A (Oct. 2006), the National Functional Guidelines for Inorganic Review (October 2004), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

TetraTech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-TB04-20100729			BPS1-TB05-2010731			BPS1-TB06-20100802			BPS1-TB-20100727		
SDG: 50063-2	LAB_ID	1008011-01			1008025-01			1008057-01			1007438-01		
FRACTION: OV	SAMP_DATE	7/29/2010			7/31/2010			8/2/2010			7/27/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.022	U		0.025	U		0.025	U		0.025	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.022	U		0.025	U		0.025	U		0.025	U	
1,1-DICHLOROETHANE		0.022	U		0.025	U		0.025	U		0.025	U	
1,1-DICHLOROETHENE		0.022	U		0.025	U		0.025	U		0.025	U	
1,2-DICHLOROETHANE		0.022	U		0.025	U		0.025	U		0.025	U	
2-BUTANONE		0.039	J	P	0.05	U		0.05	U		0.056	J	P
ACETONE		0.22	U		0.25	U		0.25	U		0.25	U	
BENZENE		0.022	U		0.025	U		0.025	U		0.025	U	
CIS-1,2-DICHLOROETHENE		0.022	U		0.025	U		0.025	U		0.025	U	
DICHLORODIFLUOROMETHANE		0.045	U		0.05	U		0.05	U		0.05	U	
ETHYLBENZENE		0.022	U		0.025	U		0.025	U		0.025	U	
M+P-XYLENES		0.045	U		0.05	U		0.05	U		0.05	U	
METHYLENE CHLORIDE		0.045	U		0.05	U		0.05	U		0.05	U	
O-XYLENE		0.022	U		0.025	U		0.025	U		0.025	U	
TETRACHLOROETHENE		0.022	U		0.025	U		0.025	U		0.025	U	
TOLUENE		0.022	U		0.025	U		0.025	U		0.025	U	
TRANS-1,2-DICHLOROETHENE		0.022	U		0.025	U		0.025	U		0.025	U	
TRICHLOROETHENE		0.045	U		0.05	U		0.05	U		0.05	U	
TRICHLOROFLUOROMETHANE		0.022	U		0.025	U		0.025	U		0.025	U	
VINYL CHLORIDE		0.022	U		0.025	U		0.025	U		0.025	U	

PROJ_NO: 02230	NSAMPLE	RB-20100802
SDG: 50063-2	LAB_ID	1008025-09
FRACTION: OV	SAMP_DATE	8/2/2010
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
2-BUTANONE	3.9	J	P
ACETONE	31		
BENZENE	0.5	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
DICHLORODIFLUOROMETHANE	0.5	U	
ETHYLBENZENE	0.5	U	
M+P-XYLENES	0.5	U	
METHYLENE CHLORIDE	0.5	U	
O-XYLENE	0.5	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRICHLOROETHENE	0.25	U	
TRICHLOROFLUOROMETHANE	0.5	U	
VINYL CHLORIDE	0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup02-20100728			BPS1-Dup04-20100731			BPS1-SB3006-117.0117.5			BPS1-SB3006-181.0181.5		
SDG: 50063-2	LAB_ID	1007438-09			1008025-08			1007438-03			1007438-04		
FRACTION: OV	SAMP_DATE	7/28/2010			7/31/2010			7/27/2010			7/28/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	74.0			89.0			83.0			76.0		
	DUP_OF	BPS1-SB3006-181.0181.5			BPS1-SB3009-51.051.5								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.034	U		0.026	U		0.028	U		0.033	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.034	U		0.026	U		0.028	U		0.033	U	
1,1-DICHLOROETHANE		0.034	U		0.026	U		0.028	U		0.033	U	
1,1-DICHLOROETHENE		0.034	U		0.026	U		0.028	U		0.033	U	
1,2-DICHLOROETHANE		0.034	U		0.026	U		0.028	U		0.033	U	
2-BUTANONE		0.077	U	A	0.053	U		0.056	U		0.066	U	
ACETONE		0.34	U		0.26	U		0.28	U		0.33	U	
BENZENE		0.034	U		0.026	U		0.028	U		0.033	U	
CIS-1,2-DICHLOROETHENE		0.034	U		0.026	U		0.028	U		0.033	U	
DICHLORODIFLUOROMETHANE		0.068	U		0.053	U		0.056	U		0.066	U	
ETHYLBENZENE		0.034	U		0.026	U		0.028	U		0.033	U	
M+P-XYLENES		0.068	U		0.053	U		0.056	U		0.066	U	
METHYLENE CHLORIDE		0.068	UJ	C	0.053	UJ	C	0.056	UJ	C	0.066	UJ	C
O-XYLENE		0.034	U		0.026	U		0.028	U		0.033	U	
TETRACHLOROETHENE		0.034	U		0.026	U		0.028	U		0.033	U	
TOLUENE		0.034	U		0.026	U		0.028	U		0.033	U	
TRANS-1,2-DICHLOROETHENE		0.034	U		0.026	U		0.028	U		0.033	U	
TRICHLOROETHENE		0.068	U		0.053	U		0.056	U		0.066	U	
TRICHLOROFLUOROMETHANE		0.034	U		0.026	U		0.028	U		0.033	U	
VINYL CHLORIDE		0.034	U		0.026	U		0.028	U		0.033	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3006-226.5227.0			BPS1-SB3006-53.053.5			BPS1-SB3007-100.0100.5			BPS1-SB3007-217.5218.0		
SDG: 50063-2	LAB_ID	1007438-05			1007438-02			1008011-04			1008011-05		
FRACTION: OV	SAMP_DATE	7/28/2010			7/27/2010			7/29/2010			7/30/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	84.0			86.0			80.0			82.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.03	U		0.029	U		0.031	U		0.028	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.03	U		0.029	U		0.031	U		0.028	U	
1,1-DICHLOROETHANE		0.03	U		0.029	U		0.031	U		0.028	U	
1,1-DICHLOROETHENE		0.03	U		0.029	U		0.031	U		0.028	U	
1,2-DICHLOROETHANE		0.03	U		0.029	U		0.031	U		0.028	U	
2-BUTANONE		0.059	U		0.058	U		0.062	U	A	0.056	U	
ACETONE		0.3	U		0.29	U		0.31	U		0.28	U	
BENZENE		0.03	U		0.029	U		0.031	U		0.028	U	
CIS-1,2-DICHLOROETHENE		0.03	U		0.029	U		0.031	U		0.028	U	
DICHLORODIFLUOROMETHANE		0.059	U		0.058	U		0.063	U		0.056	U	
ETHYLBENZENE		0.03	U		0.029	U		0.031	U		0.028	U	
M+P-XYLENES		0.059	U		0.058	U		0.063	U		0.056	U	
METHYLENE CHLORIDE		0.059	UJ	C	0.058	UJ	C	0.063	UJ	C	0.056	UJ	C
O-XYLENE		0.03	U		0.029	U		0.031	U		0.028	U	
TETRACHLOROETHENE		0.03	U		0.029	U		0.031	U		0.028	U	
TOLUENE		0.03	U		0.029	U		0.031	U		0.028	U	
TRANS-1,2-DICHLOROETHENE		0.03	U		0.029	U		0.031	U		0.028	U	
TRICHLOROETHENE		0.059	U		0.058	U		0.063	U		0.056	U	
TRICHLOROFLUOROMETHANE		0.03	U		0.029	U		0.031	U		0.028	U	
VINYL CHLORIDE		0.03	U		0.029	U		0.031	U		0.028	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3007-37.538.0			BPS1-SB3007-57.057.5			BPS1-SB3008-161.0161.5			BPS1-SB3008-234.5235.0		
SDG: 50063-2	LAB_ID	1008011-02			1008011-03			1008025-12			1008057-02		
FRACTION: OV	SAMP_DATE	7/29/2010			7/29/2010			8/2/2010			8/3/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	84.0			87.0			85.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.03	U		0.029	U		0.03	U		0.027	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.03	U		0.029	U		0.03	U		0.027	U	
1,1-DICHLOROETHANE		0.03	U		0.029	U		0.03	U		0.027	U	
1,1-DICHLOROETHENE		0.03	U		0.029	U		0.03	U		0.027	U	
1,2-DICHLOROETHANE		0.03	U		0.029	U		0.03	U		0.027	U	
2-BUTANONE		0.059	U		0.057	U		0.059	U		0.047	U	A
ACETONE		0.3	U		0.29	U		0.3	U		0.27	U	
BENZENE		0.03	U		0.029	U		0.03	U		0.027	U	
CIS-1,2-DICHLOROETHENE		0.03	U		0.029	U		0.03	U		0.027	U	
DICHLORODIFLUOROMETHANE		0.059	U		0.057	U		0.059	U		0.055	U	
ETHYLBENZENE		0.03	U		0.029	U		0.03	U		0.027	U	
M+P-XYLENES		0.059	U		0.057	U		0.059	U		0.055	U	
METHYLENE CHLORIDE		0.059	UJ	C	0.057	UJ	C	0.059	UJ	C	0.055	UJ	C
O-XYLENE		0.03	U		0.029	U		0.03	U		0.027	U	
TETRACHLOROETHENE		0.03	U		0.029	U		0.03	U		0.027	U	
TOLUENE		0.03	U		0.029	U		0.03	U		0.027	U	
TRANS-1,2-DICHLOROETHENE		0.03	U		0.029	U		0.03	U		0.027	U	
TRICHLOROETHENE		0.059	U		0.057	U		0.059	U		0.055	U	
TRICHLOROFLUOROMETHANE		0.03	U		0.029	U		0.03	U		0.027	U	
VINYL CHLORIDE		0.03	U		0.029	U		0.03	U		0.027	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3008-52.052.5			BPS1-SB3008-86.587.0			BPS1-SB3009-140.0140.5			BPS1-SB3009-209.0209.5		
SDG: 50063-2	LAB_ID	1008025-10			1008025-11			1008025-06			1008025-07		
FRACTION: OV	SAMP_DATE	8/2/2010			8/2/2010			7/31/2010			8/1/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	77.0			82.0			75.0			84.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.032	U		0.031	U		0.033	U		0.028	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.032	U		0.031	U		0.033	U		0.028	U	
1,1-DICHLOROETHANE		0.032	U		0.031	U		0.033	U		0.028	U	
1,1-DICHLOROETHENE		0.032	U		0.031	U		0.033	U		0.028	U	
1,2-DICHLOROETHANE		0.032	U		0.031	U		0.033	U		0.028	U	
2-BUTANONE		0.065	U		0.049	U	A	0.066	U		0.055	U	
ACETONE		0.32	U		0.31	U		0.33	U		0.28	U	
BENZENE		0.032	U		0.031	U		0.033	U		0.028	U	
CIS-1,2-DICHLOROETHENE		0.032	U		0.031	U		0.033	U		0.028	U	
DICHLORODIFLUOROMETHANE		0.065	U		0.061	U		0.066	U		0.055	U	
ETHYLBENZENE		0.032	U		0.031	U		0.033	U		0.028	U	
M+P-XYLENES		0.065	U		0.061	U		0.066	U		0.055	U	
METHYLENE CHLORIDE		0.065	UJ	C	0.061	UJ	C	0.066	UJ	C	0.055	UJ	C
O-XYLENE		0.032	U		0.031	U		0.033	U		0.028	U	
TETRACHLOROETHENE		0.032	U		0.031	U		0.033	U		0.028	U	
TOLUENE		0.032	U		0.031	U		0.033	U		0.028	U	
TRANS-1,2-DICHLOROETHENE		0.032	U		0.031	U		0.033	U		0.028	U	
TRICHLOROETHENE		0.065	U		0.061	U		0.066	U		0.055	U	
TRICHLOROFLUOROMETHANE		0.032	U		0.031	U		0.033	U		0.028	U	
VINYL CHLORIDE		0.032	U		0.031	U		0.033	U		0.028	U	

PROJ_NO: 02230 SDG: 50063-2 FRACTION: OV MEDIA: SOIL	NSAMPLE	BPS1-SB3009-51.051.5			BPS1-SB3009-96.096.5		
	LAB_ID	1008025-04			1008025-05		
	SAMP_DATE	7/31/2010			7/31/2010		
	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	90.0			88.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.026	U		0.028	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.026	U		0.028	U	
1,1-DICHLOROETHANE		0.026	U		0.028	U	
1,1-DICHLOROETHENE		0.026	U		0.028	U	
1,2-DICHLOROETHANE		0.026	U		0.028	U	
2-BUTANONE		0.051	U		0.057	U	
ACETONE		0.26	U		0.28	U	
BENZENE		0.026	U		0.028	U	
CIS-1,2-DICHLOROETHENE		0.026	U		0.028	U	
DICHLORODIFLUOROMETHANE		0.051	U		0.057	U	
ETHYLBENZENE		0.026	U		0.028	U	
M+P-XYLENES		0.051	U		0.057	U	
METHYLENE CHLORIDE		0.051	UJ	C	0.057	UJ	C
O-XYLENE		0.026	U		0.028	U	
TETRACHLOROETHENE		0.026	U		0.028	U	
TOLUENE		0.026	U		0.028	U	
TRANS-1,2-DICHLOROETHENE		0.026	U		0.028	U	
TRICHLOROETHENE		0.051	U		0.057	U	
TRICHLOROFLUOROMETHANE		0.026	U		0.028	U	
VINYL CHLORIDE		0.026	U		0.028	U	

PROJ_NO: 02230	NSAMPLE	RB-20100802		
SDG: 50063-2	LAB_ID	1008025-09		
FRACTION: PEST/PCB	SAMP_DATE	8/2/2010		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.085	U	
AROCLOR-1221		0.085	U	
AROCLOR-1232		0.043	U	
AROCLOR-1242		0.085	U	
AROCLOR-1248		0.085	U	
AROCLOR-1254		0.085	U	
AROCLOR-1260		0.085	U	
AROCLOR-1262		0.085	U	
AROCLOR-1268		0.085	U	

PROJ_NO: 02230 SDG: 50063-2 FRACTION: PEST/PCB MEDIA: SOIL	NSAMPLE	BPS1-Dup02-20100728			BPS1-Dup03-20100727			BPS1-Dup03-20100727-DL			BPS1-Dup04-20100731		
	LAB_ID	1007438-09			1007438-08			1007438-08RE1			1008025-08		
	SAMP_DATE	7/28/2010			7/27/2010			7/27/2010			7/31/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	74.0			85.0			85.0			89.0		
	DUP_OF	BPS1-SB3006-181.0181.5			BPS1-SB3006-32.032.5			BPS1-SB3006-32.032.5			BPS1-SB3009-51.051.5		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.018	U		0.015	U					0.015	U	
AROCLOR-1221		0.018	U		0.015	U					0.015	U	
AROCLOR-1232		0.018	U		0.015	U					0.015	U	
AROCLOR-1242		0.018	U		0.015	U					0.015	U	
AROCLOR-1248		0.0091	U					17	J	P			
AROCLOR-1254		0.018	U		0.015	U					0.015	U	
AROCLOR-1260		0.018	U		0.015	U					0.015	U	
AROCLOR-1262		0.018	U		0.015	U					0.015	U	
AROCLOR-1268		0.0091	U		0.0079	U					0.0076	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup04-20100731-RE	BPS1-SB3006-117.0117.5	BPS1-SB3006-181.0181.5	BPS1-SB3006-226.5227.0
SDG: 50063-2	LAB_ID	1008025-08RE1	1007438-03	1007438-04	1007438-05
FRACTION: PEST/PCB	SAMP_DATE	7/31/2010	7/27/2010	7/28/2010	7/28/2010
MEDIA: SOIL	QC_TYPE	NM	NM	NM	NM
	UNITS	MG/KG	MG/KG	MG/KG	MG/KG
	PCT_SOLIDS	89.0	83.0	76.0	84.0
	DUP_OF	BPS1-SB3009-51.051.5			

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016				0.016	U		0.017	U		0.015	U	
AROCLOR-1221				0.016	U		0.017	U		0.015	U	
AROCLOR-1232				0.016	U		0.017	U		0.015	U	
AROCLOR-1242				0.016	U		0.017	U		0.015	U	
AROCLOR-1248	0.23	J	P	0.0081	U		0.0088	U		0.008	U	
AROCLOR-1254				0.016	U		0.017	U		0.015	U	
AROCLOR-1260				0.016	U		0.017	U		0.015	U	
AROCLOR-1262				0.016	U		0.017	U		0.015	U	
AROCLOR-1268				0.0081	U		0.0088	U		0.008	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3006-32.032.5			BPS1-SB3006-32.032.5-DL1			BPS1-SB3006-53.053.5			BPS1-SB3006-72.072.5		
SDG: 50063-2	LAB_ID	1007438-06			1007438-06RE1			1007438-02			1007438-07		
FRACTION: PEST/PCB	SAMP_DATE	7/27/2010			7/27/2010			7/27/2010			7/27/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	86.0			86.0			86.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.015	U					0.015	U		0.015	U	
AROCLOR-1221		0.015	U					0.015	U		0.015	U	
AROCLOR-1232		0.015	U					0.015	U		0.015	U	
AROCLOR-1242		0.015	U					0.015	U		0.015	U	
AROCLOR-1248					15	J	P	0.022	J	P	0.0076	U	
AROCLOR-1254		0.015	U					0.015	U		0.015	U	
AROCLOR-1260		0.015	U					0.015	U		0.015	U	
AROCLOR-1262		0.015	U					0.015	U		0.015	U	
AROCLOR-1268		0.0078	U					0.0078	U		0.0076	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3007-100.0100.5			BPS1-SB3007-140150			BPS1-SB3007-217.5218.0			BPS1-SB3007-240.250		
SDG: 50063-2	LAB_ID	1008011-04			1008011-06			1008011-05			1008011-07		
FRACTION: PEST/PCB	SAMP_DATE	7/29/2010			7/29/2010			7/30/2010			7/30/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	80.0			83.0			82.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U		0.016	U		0.016	U		0.016	U	
AROCLOR-1221		0.016	U		0.016	U		0.016	U		0.016	U	
AROCLOR-1232		0.016	U		0.016	U		0.016	U		0.016	U	
AROCLOR-1242		0.016	U		0.016	U		0.016	U		0.016	U	
AROCLOR-1248		0.0084	U		0.0081	U		0.0081	U		0.0083	U	
AROCLOR-1254		0.016	U		0.016	U		0.016	U		0.016	U	
AROCLOR-1260		0.016	U		0.016	U		0.016	U		0.016	U	
AROCLOR-1262		0.016	U		0.016	U		0.016	U		0.016	U	
AROCLOR-1268		0.0084	U		0.0081	U		0.0081	U		0.0083	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3007-37.538.0			BPS1-SB3007-57.057.5			BPS1-SB3008-161.0161.5			BPS1-SB3008-200210		
SDG: 50063-2	LAB_ID	1008011-02			1008011-03			1008025-12			1008057-04		
FRACTION: PEST/PCB	SAMP_DATE	7/29/2010			7/29/2010			8/2/2010			8/3/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	84.0			87.0			85.0			82.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.015	U		0.015	U		0.015	U		0.016	U	
AROCLOR-1221		0.015	U		0.015	U		0.015	U		0.016	U	
AROCLOR-1232		0.015	U		0.015	U		0.015	U		0.016	U	
AROCLOR-1242		0.015	U		0.015	U		0.015	U		0.016	U	
AROCLOR-1248		0.008	U		0.0077	U		0.0079	U		0.0082	U	
AROCLOR-1254		0.015	U		0.015	U		0.015	U		0.016	U	
AROCLOR-1260		0.015	U		0.015	U		0.015	U		0.016	U	
AROCLOR-1262		0.015	U		0.015	U		0.015	U		0.016	U	
AROCLOR-1268		0.008	U		0.0077	U		0.0079	U		0.0082	U	

PROJ_NO: 02230 SDG: 50063-2 FRACTION: PEST/PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3008-234.5235.0			BPS1-SB3008-37.037.5			BPS1-SB3008-37.037.5-RE			BPS1-SB3008-52.052.5		
	LAB_ID	1008057-02			1008057-03			1008057-03RE1			1008025-10		
	SAMP_DATE	8/3/2010			8/2/2010			8/2/2010			8/2/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	81.0			90.0			90.0			77.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U		0.014	U					0.017	U	
AROCLOR-1221		0.016	U		0.014	U					0.017	U	
AROCLOR-1232		0.016	U		0.014	U					0.017	U	
AROCLOR-1242		0.016	U		0.014	U					0.017	U	
AROCLOR-1248		0.0083	U					0.073	J	P	0.21	J	P
AROCLOR-1254		0.016	U		0.014	U					0.017	U	
AROCLOR-1260		0.016	U		0.014	U					0.017	U	
AROCLOR-1262		0.016	U		0.014	U					0.017	U	
AROCLOR-1268		0.0083	U		0.0074	U					0.0087	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3008-86.587.0			BPS1-SB3009-140.0140.5			BPS1-SB3009-209.0209.5			BPS1-SB3009-27.027.5		
SDG: 50063-2	LAB_ID	1008025-11			1008025-06			1008025-07			1008025-02		
FRACTION: PEST/PCB	SAMP_DATE	8/2/2010			7/31/2010			8/1/2010			7/31/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	82.0			75.0			84.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U		0.017	U		0.016	U		0.014	U	
AROCLOR-1221		0.016	U		0.017	U		0.016	U		0.014	U	
AROCLOR-1232		0.016	U		0.017	U		0.016	U		0.014	U	
AROCLOR-1242		0.016	U		0.017	U		0.016	U		0.014	U	
AROCLOR-1248		0.0082	U		0.0089	U		0.008	U		0.25	J	P
AROCLOR-1254		0.016	U		0.017	U		0.016	U		0.014	U	
AROCLOR-1260		0.016	U		0.017	U		0.016	U		0.014	U	
AROCLOR-1262		0.016	U		0.017	U		0.016	U		0.014	U	
AROCLOR-1268		0.0082	U		0.0089	U		0.008	U		0.0071	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3009-36.036.5			BPS1-SB3009-36.036.5-DL			BPS1-SB3009-36.036.5-DL1			BPS1-SB3009-51.051.5		
SDG: 50063-2	LAB_ID	1008025-03			1008025-03RE1			1008025-03RE1			1008025-04		
FRACTION: PEST/PCB	SAMP_DATE	7/31/2010			7/31/2010			7/31/2010			7/31/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			93.0			93.0			90.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U								0.015	U	
AROCLOR-1221		0.014	U								0.015	U	
AROCLOR-1232		0.014	U								0.015	U	
AROCLOR-1242		0.014	U								0.015	U	
AROCLOR-1248					10	J	P	10	J	P	0.26	J	P
AROCLOR-1254		0.014	U								0.015	U	
AROCLOR-1260		0.014	U								0.015	U	
AROCLOR-1262		0.014	U								0.015	U	
AROCLOR-1268		0.0072	U								0.0079	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3009-96.096.5
SDG: 50063-2	LAB_ID	1008025-05
FRACTION: PEST/PCB	SAMP_DATE	7/31/2010
MEDIA: SOIL	QC_TYPE	NM
	UNITS	MG/KG
	PCT_SOLIDS	88.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
AROCLOR-1016	0.015	U	
AROCLOR-1221	0.015	U	
AROCLOR-1232	0.015	U	
AROCLOR-1242	0.015	U	
AROCLOR-1248	0.0076	U	
AROCLOR-1254	0.015	U	
AROCLOR-1260	0.015	U	
AROCLOR-1262	0.015	U	
AROCLOR-1268	0.0076	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB04-20100729			BPS1-TB05-2010731			BPS1-TB06-20100802			BPS1-TB-20100727		
SDG: 50063-2	LAB_ID	1008011-01			1008025-01			1008057-01			1007438-01		
FRACTION: PET	SAMP_DATE	7/29/2010			7/31/2010			8/2/2010			7/27/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS													
GASOLINE RANGE ORGANICS		4	U		4	U		4	U		4	U	

PROJ_NO: 02230	NSAMPLE	RB-20100802		
SDG: 50063-2	LAB_ID	1008025-09		
FRACTION: PET	SAMP_DATE	8/2/2010		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		120	J	P
GASOLINE RANGE ORGANICS		50	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup02-20100728			BPS1-Dup04-20100731			BPS1-SB3006-117.0117.5			BPS1-SB3006-181.0181.5		
SDG: 50063-2	LAB_ID	1007438-09			1008025-08			1007438-03			1007438-04		
FRACTION: PET	SAMP_DATE	7/28/2010			7/31/2010			7/27/2010			7/28/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	74.0			89.0			83.0			76.0		
	DUP_OF	BPS1-SB3006-181.0181.5			BPS1-SB3009-51.051.5								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		6.8	U		11			6.1	U		6.6	U	
GASOLINE RANGE ORGANICS		5.4	U		4.2	U		4.4	U		5.3	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3006-226.5227.0			BPS1-SB3006-53.053.5			BPS1-SB3007-100.0100.5			BPS1-SB3007-217.5218.0		
SDG: 50063-2	LAB_ID	1007438-05			1007438-02			1008011-04			1008011-05		
FRACTION: PET	SAMP_DATE	7/28/2010			7/27/2010			7/29/2010			7/30/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	84.0			86.0			80.0			82.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		5.9	U		5.8	U		6.3	U		6.1	U	
GASOLINE RANGE ORGANICS		4.8	U		4.6	U		5	U		4.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3007-37.538.0			BPS1-SB3007-57.057.5			BPS1-SB3008-161.0161.5			BPS1-SB3008-234.5235.0		
SDG: 50063-2	LAB_ID	1008011-02			1008011-03			1008025-12			1008057-02		
FRACTION: PET	SAMP_DATE	7/29/2010			7/29/2010			8/2/2010			8/3/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	84.0			87.0			85.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		5.9	U		5.7	U		5.3	J	P	4.6	J	P
GASOLINE RANGE ORGANICS		4.2	U		4.6	U		4.7	U		0.11	UJ	C

PROJ_NO: 02230	NSAMPLE	BPS1-SB3008-52.052.5			BPS1-SB3008-86.587.0			BPS1-SB3009-140.0140.5			BPS1-SB3009-209.0209.5		
SDG: 50063-2	LAB_ID	1008025-10			1008025-11			1008025-06			1008025-07		
FRACTION: PET	SAMP_DATE	8/2/2010			8/2/2010			7/31/2010			8/1/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	77.0			82.0			75.0			84.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		13			7.4	J	P	5.2	J	P	7	J	P
GASOLINE RANGE ORGANICS		5.2	U		4.9	U		5.3	U		4.4	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3009-51.051.5			BPS1-SB3009-96.096.5		
SDG: 50063-2	LAB_ID	1008025-04			1008025-05		
FRACTION: PET	SAMP_DATE	7/31/2010			7/31/2010		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	90.0			88.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		2.9	J	P	3.2	J	P
GASOLINE RANGE ORGANICS		4.1	U		4.5	U	

PROJ_NO: 02230	NSAMPLE	RB-20100802		
SDG: 50063-2	LAB_ID	1008025-09		
FRACTION: MISC	SAMP_DATE	8/2/2010		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		1.2		

PROJ_NO: 02230	NSAMPLE	BPS1-Dup02-20100728			BPS1-Dup03-20100727			BPS1-Dup04-20100731			BPS1-SB3006-117.0117.5		
SDG: 50063-2	LAB_ID	1007438-09			1007438-08			1008025-08			1007438-03		
FRACTION: MISC	SAMP_DATE	7/28/2010			7/27/2010			7/31/2010			7/27/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	74.0			85.0			89.0			83.0		
	DUP_OF	BPS1-SB3006-181.0181.5			BPS1-SB3006-32.032.5			BPS1-SB3009-51.051.5					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		74			85			89			83		
TOTAL ORGANIC CARBON		0.01	U					0.012	J	P	0.01	J	P

PROJ_NO: 02230	NSAMPLE	BPS1-SB3006-181.0181.5			BPS1-SB3006-226.5227.0			BPS1-SB3006-32.032.5			BPS1-SB3006-53.053.5		
SDG: 50063-2	LAB_ID	1007438-04			1007438-05			1007438-06			1007438-02		
FRACTION: MISC	SAMP_DATE	7/28/2010			7/28/2010			7/27/2010			7/27/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	76.0			84.0			86.0			86.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		76			84			86			86		
TOTAL ORGANIC CARBON		0.01	U		0.01	U					0.01	J	P

PROJ_NO: 02230	NSAMPLE	BPS1-SB3006-72.072.5			BPS1-SB3007-100.0100.5			BPS1-SB3007-140150			BPS1-SB3007-217.5218.0		
SDG: 50063-2	LAB_ID	1007438-07			1008011-04			1008011-06			1008011-05		
FRACTION: MISC	SAMP_DATE	7/27/2010			7/29/2010			7/29/2010			7/30/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	88.0			80.0			83.0			82.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		88			80			83			82		
TOTAL ORGANIC CARBON					0.01	U					0.01	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3007-240.250			BPS1-SB3007-37.538.0			BPS1-SB3007-57.057.5			BPS1-SB3008-161.0161.5		
SDG: 50063-2	LAB_ID	1008011-07			1008011-02			1008011-03			1008025-12		
FRACTION: MISC	SAMP_DATE	7/30/2010			7/29/2010			7/29/2010			8/2/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	81.0			84.0			87.0			85.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		81			84			87			85		
TOTAL ORGANIC CARBON					0.026	J	P	0.01	U		0.01	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3008-200210			BPS1-SB3008-234.5235.0			BPS1-SB3008-37.037.5			BPS1-SB3008-52.052.5		
SDG: 50063-2	LAB_ID	1008057-04			1008057-02			1008057-03			1008025-10		
FRACTION: MISC	SAMP_DATE	8/3/2010			8/3/2010			8/2/2010			8/2/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	82.0			81.0			90.0			77.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		82			81			90			77		
TOTAL ORGANIC CARBON					0.021	J	P				0.038	J	P

PROJ_NO: 02230	NSAMPLE	BPS1-SB3008-86.587.0			BPS1-SB3009-140.0140.5			BPS1-SB3009-209.0209.5			BPS1-SB3009-27.027.5		
SDG: 50063-2	LAB_ID	1008025-11			1008025-06			1008025-07			1008025-02		
FRACTION: MISC	SAMP_DATE	8/2/2010			7/31/2010			8/1/2010			7/31/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	82.0			75.0			84.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		82			75			84			94		
TOTAL ORGANIC CARBON		0.015	J	P	0.01	U		0.013	J	P			

PROJ_NO: 02230	NSAMPLE	BPS1-SB3009-36.036.5			BPS1-SB3009-51.051.5			BPS1-SB3009-96.096.5		
SDG: 50063-2	LAB_ID	1008025-03			1008025-04			1008025-05		
FRACTION: MISC	SAMP_DATE	7/31/2010			7/31/2010			7/31/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	%			%			%		
	PCT_SOLIDS	93.0			90.0			88.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		93			90			88		
TOTAL ORGANIC CARBON					0.01	U		0.01	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: R. SOK **DATE:** OCTOBER 11, 2010

FROM: A. COGNETTI **COPIES:** DV FILE

SUBJECT: **ORGANIC DATA VALIDATION – VOC/PCB/GRO/DRO/TOC**
NWIRP BETHPAGE CTO WE44
SAMPLE DELIVERY GROUP (SDG) – 50063-3

SAMPLES: 6/Soil/VOC/DRO/GRO/TOC

BPS1-Dup05-20100811	BPS1-SB3010-49.049.5	BPS1-SB3010-93.594.0
BPS1-SB3012-112.5113.0	BPS1-SB3012-203.0203.5	BPS1-SB3012-39.039.5

12/Aqueous/VOC

BPS1-GW3010-114118	BPS1-GW3010-5761
BPS1-GW3012-110114	BPS1-GW3012-144148
BPS1-GW3012-200204	BPS1-GW3012-4852
BPS1-GWTB01-20100727	BPS1-GWTB02-20100727
BPS1-GWTB03-20100814	BPS1-RB03-20100815
BPS1-TB07-20100809	BPS1-TB08-20100814

8/Soil/PCB

BPS1-Dup05-20100811	BPS1-SB3010-49.049.5
BPS1-SB3010-93.594.0	BPS1-SB3012-112.5113.0
BPS1-SB3012-158168	BPS1-SB3012-203.0203.5
BPS1-SB3012-4858	BPS1-SB3012-5868

8/Aqueous/PCB

BPS1-AQIDW-01-20100811	BPS1-GW3010-114118
BPS1-GW3010-5761	BPS1-GW3012-110114
BPS1-GW3012-144148	BPS1-GW3012-200204
BPS1-GW3012-4852	BPS1-RB03-20100815

2/Aqueous/GRO

BPS1-TB07-20100809	BPS1-TB08-20100814

Overview

The sample set for NWIRP Bethpage, CTO WE 44, SDG 50063-3 consists of six (6) environmental soil sample analyzed for select volatile organic compounds (VOC), Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and Total Organic Carbon (TOC). Six (6) aqueous environmental samples, five (5) trip blanks and one (1) rinse blank were analyzed for select VOCs. Eight (8) soil environmental samples, seven (7) aqueous environmental samples and one (1) rinse blank were analyzed for Polychlorinated Biphenyls (PCBs). Two (2) trip blanks were analyzed for GRO. The field duplicate pair contained within this SDG is BPS1-SB3012-112.5113.0 and BPS1-Dup05-20100811.

The samples were collected by Tetra Tech on August 9, 10, 11, 12, 13, 14, 15 and 16, 2010 and analyzed by Trimatrix Laboratories. VOC and PCB analyses were conducted in accordance with EPA Method SW-846 8260B and 8082, respectively. GRO and DRO analyses were conducted using SW-846 method 8015B. TOC analyses followed MSA 29-3.5.2. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
* • GC/MS Tuning
* • Initial/continuing calibrations
* • Laboratory Method Blank Results
* • Surrogate Recoveries
* • Matrix Spike / Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
* • Internal Standard Recoveries
* • Compound Quantitation
* • Compound Identification
* • Field Duplicate Precision
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile- None.

PCB

The percent difference (%D) between columns was greater than the 25% quality control limit but less than 100% for PCB-1242 in sample BPS1-GW3010-5761. The positive PCB-1242 result in sample BPS1-GW3010-5761 was qualified as estimated (J).

GRO- None.

DRO- None.

TOC- None.

Additional Comments

Rinse blank BPS1-RB03-20100815 contained contaminants 2-butanone and acetone in the VOC fraction. There were no positive detections of 2-butanone or acetone in any of the samples analyzed for VOCs. No action was warranted.

The percent recovery (%R) of surrogate aaa-trifluorotoluene in sample BPS1-TB07-20100809 was greater than the upper quality control limit in the GRO fraction. No action was taken on the nondetected GRO result in sample BPS1-TB07-20100809.

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Trip blanks BPS1-TB07-20100809 and BPS1-TB08-20100814 were reported by the laboratory in soil units (mg/kg). The chain of custody indicated the trip blanks contained methanol.

EXECUTIVE SUMMARY

Laboratory Performance Issues: The %D between columns was greater than the quality control limit for PCB-1242 in sample BPS1-GW3010-5761.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to SOP # HW-24 Revision #2, October 2006, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846/8260B, SOP # HW-45 Revision #1, October 2006, USEPA Region II Hazardous Waste Support Branch Validating PCB Compounds by Gas Chromatography SW-846 Method 8082A and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories", January 2006.

The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

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Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-GW3010-114118			BPS1-GW3010-5761			BPS1-GW3012-110114			BPS1-GW3012-144148		
SDG: 50063-3	LAB_ID	1008243-11			1008243-09			1008223-02			1008223-03		
FRACTION: OV	SAMP_DATE	8/16/2010			8/16/2010			8/12/2010			8/13/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.19	J	P
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.61	J	P
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.91	J	P
TOLUENE		0.5	U		0.5	U		0.25	J	P	0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		0.25	U		0.25	U		1.4		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-GW3012-200204			BPS1-GW3012-4852			BPS1-GWTB01-20100727			BPS1-GWTB02-20100727		
SDG: 50063-3	LAB_ID	1008243-04			1008187-04			1008187-01			1008223-01		
FRACTION: OV	SAMP_DATE	8/14/2010			8/10/2010			8/10/2010			8/12/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-GWTB03-20100814			BPS1-RB03-20100815			BPS1-TB07-20100809			BPS1-TB08-20100814		
SDG: 50063-3	LAB_ID	1008243-02			1008243-07			1008187-02			1008243-01		
FRACTION: OV	SAMP_DATE	8/14/2010			8/15/2010			8/9/2010			8/14/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			MG/KG			MG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.025	U		0.025	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.025	U		0.025	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.025	U		0.025	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.025	U		0.025	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.025	U		0.025	U	
2-BUTANONE		1	U		3.1	J	P	0.05	U		0.05	U	
ACETONE		5	U		17			0.25	U		0.25	U	
BENZENE		0.5	U		0.5	U		0.025	U		0.025	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.025	U		0.025	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.05	U		0.05	U	
ETHYLBENZENE		0.5	U		0.5	U		0.025	U		0.025	U	
M+P-XYLENES		0.5	U		0.5	U		0.05	U		0.05	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.05	U		0.05	U	
O-XYLENE		0.5	U		0.5	U		0.025	U		0.025	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.025	U		0.025	U	
TOLUENE		0.5	U		0.5	U		0.025	U		0.025	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.025	U		0.025	U	
TRICHLOROETHENE		0.25	U		0.25	U		0.05	U		0.05	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.025	U		0.025	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.025	U		0.025	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20100811			BPS1-SB3010-49.049.5			BPS1-SB3010-93.594.0			BPS1-SB3012-112.5113.0		
SDG: 50063-3	LAB_ID	1008187-08			1008243-08			1008243-10			1008187-06		
FRACTION: OV	SAMP_DATE	8/11/2010			8/15/2010			8/16/2010			8/11/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0 112			85.0			76.0			94.0		
	DUP_OF	BPS1-SB3012-~~122~~5113.0											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.03	U		0.029	U		0.033	U		0.027	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.03	U		0.029	U		0.033	U		0.027	U	
1,1-DICHLOROETHANE		0.03	U		0.029	U		0.033	U		0.027	U	
1,1-DICHLOROETHENE		0.03	U		0.029	U		0.033	U		0.027	U	
1,2-DICHLOROETHANE		0.03	U		0.029	U		0.033	U		0.027	U	
2-BUTANONE		0.059	U		0.059	U		0.066	U		0.053	U	
ACETONE		0.3	U		0.29	U		0.33	U		0.27	U	
BENZENE		0.03	U		0.029	U		0.033	U		0.027	U	
CIS-1,2-DICHLOROETHENE		0.03	U		0.029	U		0.033	U		0.027	U	
DICHLORODIFLUOROMETHANE		0.059	U		0.059	U		0.066	U		0.053	U	
ETHYLBENZENE		0.03	U		0.029	U		0.033	U		0.027	U	
M+P-XYLENES		0.059	U		0.059	U		0.066	U		0.053	U	
METHYLENE CHLORIDE		0.059	U		0.059	U		0.066	U		0.053	U	
O-XYLENE		0.03	U		0.029	U		0.033	U		0.027	U	
TETRACHLOROETHENE		0.03	U		0.029	U		0.033	U		0.027	U	
TOLUENE		0.03	U		0.029	U		0.033	U		0.027	U	
TRANS-1,2-DICHLOROETHENE		0.03	U		0.029	U		0.033	U		0.027	U	
TRICHLOROETHENE		0.059	U		0.059	U		0.066	U		0.053	U	
TRICHLOROFLUOROMETHANE		0.03	U		0.029	U		0.033	U		0.027	U	
VINYL CHLORIDE		0.03	U		0.029	U		0.033	U		0.027	U	

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PROJ_NO: 02230	NSAMPLE	BPS1-SB3012-203.0203.5			BPS1-SB3012-39.039.5		
SDG: 50063-3	LAB_ID	1008243-03			1008187-03		
FRACTION: OV	SAMP_DATE	8/14/2010			8/9/2010		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	84.0			93.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.03	U		0.024	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.03	U		0.024	U	
1,1-DICHLOROETHANE		0.03	U		0.024	U	
1,1-DICHLOROETHENE		0.03	U		0.024	U	
1,2-DICHLOROETHANE		0.03	U		0.024	U	
2-BUTANONE		0.059	U		0.049	U	
ACETONE		0.3	U		0.24	U	
BENZENE		0.03	U		0.024	U	
CIS-1,2-DICHLOROETHENE		0.03	U		0.024	U	
DICHLORODIFLUOROMETHANE		0.059	U		0.049	U	
ETHYLBENZENE		0.03	U		0.024	U	
M+P-XYLENES		0.059	U		0.049	U	
METHYLENE CHLORIDE		0.059	U		0.049	U	
O-XYLENE		0.03	U		0.024	U	
TETRACHLOROETHENE		0.03	U		0.024	U	
TOLUENE		0.03	U		0.024	U	
TRANS-1,2-DICHLOROETHENE		0.03	U		0.024	U	
TRICHLOROETHENE		0.059	U		0.049	U	
TRICHLOROFLUOROMETHANE		0.03	U		0.024	U	
VINYL CHLORIDE		0.03	U		0.024	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20100811			BPS1-SB3010-49.049.5			BPS1-SB3010-93.594.0			BPS1-SB3012-112.5113.0		
SDG: 50063-3	LAB_ID	1008187-08			1008243-08			1008243-10			1008187-06		
FRACTION: PCB	SAMP_DATE	8/11/2010			8/15/2010			8/16/2010			8/11/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			85.0			76.0			94.0		
	DUP_OF	BPS1-SB3012-~~122~~112.5113.0											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.015	U		0.017	U		0.014	U	
AROCLOR-1221		0.014	U		0.015	U		0.017	U		0.014	U	
AROCLOR-1232		0.014	U		0.015	U		0.017	U		0.014	U	
AROCLOR-1242		0.014	U		0.015	U		0.017	U		0.014	U	
AROCLOR-1248		0.007	U		0.0079	U		0.0088	U		0.0071	U	
AROCLOR-1254		0.014	U		0.015	U		0.017	U		0.014	U	
AROCLOR-1260		0.014	U		0.015	U		0.017	U		0.014	U	
AROCLOR-1262		0.014	U		0.015	U		0.017	U		0.014	U	
AROCLOR-1268		0.007	U		0.0079	U		0.0088	U		0.0071	U	

10-19-10
JAJ

PROJ_NO: 02230	NSAMPLE	BPS1-SB3012-158168			BPS1-SB3012-203.0203.5			BPS1-SB3012-203.0203.5RE			BPS1-SB3012-4858		
SDG: 50063-3	LAB_ID	1008243-06			1008243-03			1008243-03RE1			1008243-05		
FRACTION: PCB	SAMP_DATE	8/13/2010			8/14/2010			8/14/2010			8/10/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	81.0			84.0			84.0			83.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U		0.015	U					0.016	U	
AROCLOR-1221		0.016	U		0.015	U					0.016	U	
AROCLOR-1232		0.016	U		0.015	U					0.016	U	
AROCLOR-1242		0.016	U					0.014	J	P	0.016	U	
AROCLOR-1248		0.0083	U		0.0079	U					0.0081	U	
AROCLOR-1254		0.016	U		0.015	U					0.016	U	
AROCLOR-1260		0.016	U		0.015	U					0.016	U	
AROCLOR-1262		0.016	U		0.015	U					0.016	U	
AROCLOR-1268		0.0083	U		0.0079	U					0.0081	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3012-5868
SDG: 50063-3	LAB_ID	1008187-07
FRACTION: PCB	SAMP_DATE	8/10/2010
MEDIA: SOIL	QC_TYPE	NM
	UNITS	MG/KG
	PCT_SOLIDS	88.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
AROCLOR-1016	0.015	U	
AROCLOR-1221	0.015	U	
AROCLOR-1232	0.015	U	
AROCLOR-1242	0.015	U	
AROCLOR-1248	0.0076	U	
AROCLOR-1254	0.015	U	
AROCLOR-1260	0.015	U	
AROCLOR-1262	0.015	U	
AROCLOR-1268	0.0076	U	

PROJ_NO: 02230	NSAMPLE	BPS1-AQIDW-01-20100811			BPS1-AQIDW-01-20100811RE			BPS1-GW3010-114118			BPS1-GW3010-114118RE		
SDG: 50063-3	LAB_ID	1008187-05			1008187-05RE1			1008243-11			1008243-11RE1		
FRACTION: PCB	SAMP_DATE	8/11/2010			8/11/2010			8/16/2010			8/16/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242		0.08	U								0.42		
AROCLOR-1248					0.91			0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-GW3010-5761			BPS1-GW3010-5761RE			BPS1-GW3012-110114			BPS1-GW3012-144148		
SDG: 50063-3	LAB_ID	1008243-09			1008243-09RE1			1008223-02			1008223-03		
FRACTION: PCB	SAMP_DATE	8/16/2010			8/16/2010			8/12/2010			8/13/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U		0.08	U	
AROCLOR-1221		0.08	U					0.08	U		0.08	U	
AROCLOR-1232		0.04	U					0.04	U		0.04	U	
AROCLOR-1242					0.1	J	PU	0.08	U				
AROCLOR-1248		0.08	U					0.08	U		0.08	U	
AROCLOR-1254		0.08	U					0.08	U		0.08	U	
AROCLOR-1260		0.08	U					0.08	U		0.08	U	
AROCLOR-1262		0.08	U					0.08	U		0.08	U	
AROCLOR-1268		0.08	U					0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-GW3012-144148RE			BPS1-GW3012-200204			BPS1-GW3012-4852			BPS1-RB03-20100815		
SDG: 50063-3	LAB_ID	1008223-03RE1			1008243-04			1008187-04			1008243-07		
FRACTION: PCB	SAMP_DATE	8/13/2010			8/14/2010			8/10/2010			8/15/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.08	U		0.086	U		0.08	U	
AROCLOR-1221					0.08	U		0.086	U		0.08	U	
AROCLOR-1232					0.04	U		0.043	U		0.04	U	
AROCLOR-1242		0.24			0.08	U		0.086	U		0.08	U	
AROCLOR-1248					0.08	U		0.086	U		0.08	U	
AROCLOR-1254					0.08	U		0.086	U		0.08	U	
AROCLOR-1260					0.08	U		0.086	U		0.08	U	
AROCLOR-1262					0.08	U		0.086	U		0.08	U	
AROCLOR-1268					0.08	U		0.086	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20100811			BPS1-SB3010-49.049.5			BPS1-SB3010-93.594.0			BPS1-SB3012-112.5113.0		
SDG: 50063-3	LAB_ID	1008187-08			1008243-08			1008243-10			1008187-06		
FRACTION: PET	SAMP_DATE	8/11/2010			8/15/2010			8/16/2010			8/11/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			85.0			76.0			94.0		
	DUP_OF	BPS1-SB3012-112.5113.0											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		5.3	U		5.9	U		6.6	U		5.3	U	
GASOLINE RANGE ORGANICS		4.7	U		4.7	U		5.3	U		4.3	U	

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PROJ_NO: 02230	NSAMPLE	BPS1-SB3012-203.0203.5			BPS1-SB3012-39.039.5		
SDG: 50063-3	LAB_ID	1008243-03			1008187-03		
FRACTION: PET	SAMP_DATE	8/14/2010			8/9/2010		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	84.0			93.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		5.9	U		5.4	U	
GASOLINE RANGE ORGANICS		4.7	U		3.9	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB07-20100809			BPS1-TB08-20100814		
SDG: 50063-3	LAB_ID	1008187-02			1008243-01		
FRACTION: PET	SAMP_DATE	8/9/2010			8/14/2010		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
GASOLINE RANGE ORGANICS		4	U		4	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20100811			BPS1-SB3010-49.049.5			BPS1-SB3010-93.594.0			BPS1-SB3012-112.5113.0		
SDG: 50063-3	LAB_ID	1008187-08			1008243-08			1008243-10			1008187-06		
FRACTION: MISC	SAMP_DATE	8/11/2010			8/15/2010			8/16/2010			8/11/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	95.0			85.0			76.0			94.0		
	DUP_OF	BPS1-SB3012-112.5113.0											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		95			85			76			94		
TOTAL ORGANIC CARBON		0.013	J	P	0.02	J	P	0.01	U		0.019	J	P

PROJ_NO: 02230	NSAMPLE	BPS1-SB3012-158168			BPS1-SB3012-203.0203.5			BPS1-SB3012-39.039.5			BPS1-SB3012-4858		
SDG: 50063-3	LAB_ID	1008243-06			1008243-03			1008187-03			1008243-05		
FRACTION: MISC	SAMP_DATE	8/13/2010			8/14/2010			8/9/2010			8/10/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	81.0			84.0			93.0			83.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		81			84			93			83		
TOTAL ORGANIC CARBON					0.041	J	P	0.01	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3012-5868		
SDG: 50063-3	LAB_ID	1008187-07		
FRACTION: MISC	SAMP_DATE	8/10/2010		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	%		
	PCT_SOLIDS	88.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
PERCENT SOLIDS		88		
TOTAL ORGANIC CARBON				

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **NOVEMBER 30, 2010**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / PCB / DRO / GRO / TCLPS / TCLPV**
NWIRP BETHPAGE CTO WE44
SDG 50063-4

SAMPLES: 9 / Aqueous / VOC

BPS1-FB02-20100818	BPS1-GW3010-144148	BPS1-GW3010-196200
BPS1-GWDup01-20100817	BPS1-GWTB04-20100817	BPS1-RB04-20100818
BPS1-TB-20100826	BPS1-TW3011-20100826	BPS1-TB10-20100818

6 / Aqueous / PCB

BPS1-FB02-20100818	BPS1-GW3010-144148	BPS1-GW3010-196200
BPS1-GWDup01-20100817	BPS1-TW3011-20100826	BPS1-RB04-20100818

1 / Aqueous / GRO (C06-C10) / DRO (C10-C28)

BPS1-RB04-20100818

1 / Aqueous / TCLPS / TCLPV

BPS1-DrumIDW-01-20100818

8 / Soil / PCB

BPS1-DrumIDW-01-20100818	BPS1-SB3010-0008	BPS1-SB3010-118148
BPS1-SB3010-188.0188.5	BPS1-SB3010-5868	BPS1-SB3011-1828
BPS1-SB3011-3848	BPS1-SB3011-48.549.0	

3 / Soil / VOC / GRO (C06-C10)

BPS1-SB3010-188.0188.5	BPS1-SB3011-48.549.0	BPS1-TB09-20100817

2 / Soil / DRO (C10-C28)

BPS1-SB3010-188.0188.5	BPS1-SB3011-48.549.0

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-4 consisted of ten (10) aqueous samples and eight (8) soil samples including one (1) field blank, three (3) aqueous trip blanks, one (1) aqueous rinse blank, and one (1) aqueous TCLP sample (Toxicity Characteristic Leaching Procedure). The samples were analyzed for an abbreviated list of volatile organic compounds (VOC), TCLP VOCs (TCLPV), TCLP semi-volatile organics (TCLPS), polychlorinated biphenyls (PCB), Diesel Range Organics (C06-C10), and Gasoline Range Organics (C10-C28) as listed above. One field duplicate pair was associated with this sample delivery group (SDG); BPS1-GWDup01-20100817 / BPS1-SB3010-118148.

The samples were collected by Tetra Tech on July 15, 16, 17, 18, and 26, 2010 and analyzed by TriMatrix Laboratories. All analyses were conducted in accordance with EPA Method SW-846 8260B, 8270C, 8015C, and 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

*	•	Data Completeness
*	•	Holding Times
*	•	GC/MS Tuning
	•	Initial and Continuing Calibration
	•	Laboratory Blank Analyses
	•	System Monitoring Compound/Surrogate Recovery
*	•	Blank Spike Results
*	•	Internal Standard Recoveries
*	•	Field Duplicate Precision
	•	Compound Quantitation
*	•	Compound Identification
*	•	Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile (VOC)

Trip blanks for this SDG were analyzed by both the mid-level 5035 Soil Purge & Trap method reported in units of mg/kg and using the low level 5030B Aqueous Purge & Trap reported in units of µg/L. The rinse blank and field sample blank were analyzed using a low level 5030B Aqueous Purge & Trap method and the results were reported in units of µg/L. Trip blank sample BPS1-TB09-20100817 was a methanol trip blank and was analyzed using the mid-level Soil Purge & Trap method.

The following compound was detected in the method blank for batch 1008984 affecting SDG samples BPS1-TB-20100826 and BPS1-TW3011-20100826.

Compound	Maximum Concentration	Action Level
Acetone	3.6 µg/L	36.0 µg/L

An action level of 10X the maximum concentration for the common laboratory contaminant acetone was established to evaluate laboratory contamination. Dilution factors and sample aliquots, if applicable, were taken into consideration during the application of all action levels. The positive result for acetone below the blank action level for sample BPS1-TW3011-20100826 was qualified as non-detected, (U). The trip blank was not qualified due to method blank contamination.

The trip blank BPS1-TB-20100826 had detections for the common laboratory contaminant VOCs acetone, 2-butanone, and methylene chloride. These compounds were not present in the associated samples and qualification of the data was not necessary.

TCLPV (TCLP VOC)

No issues were identified.

TCLPS (TCLP SVOC)

The initial calibration response factors (RF) for chlordane and toxaphene were less than the 0.05 quality control limit affecting the sample BPS1-DrumIDW-01-20100818 non-detected chlordane and toxaphene results. The non-detected chlordane and toxaphene results were qualified estimated, (UJ), for the sample.

PCBs

Sample BPS1-DrumIDW-01-20100818 was analyzed both undiluted and diluted 100X for Aroclor-1248 due to the Aroclor-1248 analysis result which exceeded the highest calibration standard in the undiluted sample analysis. The non-detect PCB results were reported from the undiluted analyses and the Aroclor-1248 result was reported from the 100X dilution re-analysis.

The sample BPS1-DrumIDW-01-20100818 Aroclor-1248 positive result was qualified estimated, (J), as the relative percent difference (RPD) between the analytical columns DB-35 and DB-XLB for the result was greater than the 25% quality control limit.

The percent recovery (%R) was greater than the quality control limit for the surrogate tetrachloro-m-xylene (TCX) for sample BPS1-GW3010-144148 for the analytical column DB-XLB. The non-detected Aroclor results were not qualified as the alternated column had a %R for the surrogate within the quality control limits, and the positive Aroclor-1242 result was not qualified as it was reported from the alternate column.

Three continuing calibration verifications (CCV) had surrogate %Rs greater than the quality control limit for decachlorobiphenyl (DCB). No action was taken as this did not affect the sample analyses.

No LCS was performed for the Aroclor-1242 and the Aroclor-1248 analyses.

Per the laboratory narrative for Aroclor-1242 positive results, "A conclusive PCB Aroclor identification is not possible due to matrix interference and/or weathering of the sample. The identity of the reported Aroclor is tentative." The positive Aroclor-1242 sample results for samples BPS1-GW3010-144148, BPS1-GW3010-196200, BPS1-GWDup01-20100817, and BPS1-SB3010-0008 were qualified estimated, (J), due to this issue.

DRO (C10-C28)

DRO was detected in the DRO aqueous method blank associated with batch 1007869 at 97 µg/L affecting aqueous rinse blank sample BPS1-RB04-20100818. Additionally, the rinse blank sample BPS1-RB04-20100818 had DRO detected at 180 µg/L. No action was taken for this method blank contamination as QC rinse blank samples are not qualified for method blank contamination.

The continuing calibration verification percent difference (%D) for the DRO analysis was greater than the 15% quality control limit for instrument 157 for 09/04/10 @ 13:23 and @ 15:50 affecting sample BPS1-RB04-20100818. The sample BPS1-RB04-20100818 positive DRO result was qualified estimated, (J).

GRO (C06-C10)

The continuing calibration verification %D for the GRO analysis was greater than the quality control limit of 15% for instrument 140 for 08/20/10 @ 22:29 affecting samples BPS1-SB3010-188.0188.5, BPS1-SB3011-48.549.0, and BPS1-TB09-20100817. The samples non-detected GRO results were qualified estimated, (UJ).

Additional Comments

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Aroclor results were reported from the DB-35 column by the laboratory regardless of whether the results were the highest or the lowest of the two analytical columns.

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC method blank contamination resulted in qualification of sample acetone results. Initial calibration response factors <0.05 for chlordane and toxaphene resulted in the qualification of the non-detected TCLP sample BPS1-DrumIDW-01-20100818 chlordane and toxaphene results. Aroclor-1242 positive results were qualified due to laboratory identified "weathering" of the sample Aroclor results. Continuing calibration verification %D quality control limit non-compliances resulted in the data qualification for a positive DRO result and non-detected GRO results.

Other Factors Affecting Data Quality: Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the Organic Data Validation (10/99), USEPA Region II Standard Operating Procedures for Validating Volatile Organic Compounds by SW-846 Method 8260B (October 2006), validating PCB compounds by SW-846 Method 8082A (Oct. 2006), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

TetraTech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-FB02-20100818			BPS1-GW3010-144148			BPS1-GW3010-196200			BPS1-GWDup01-20100817		
SDG: 50063-4	LAB_ID	1008308-10			1008308-02			1008308-05			1008308-06		
FRACTION: OV	SAMP_DATE	8/18/2010			8/17/2010			8/17/2010			8/17/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF										BPS1-GW3010-144148		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.19	J	P	0.27	J	P	0.21	J	P
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-GWTB04-20100817			BPS1-RB04-20100818			BPS1-TB10-20100818			BPS1-TB-20100826		
SDG: 50063-4	LAB_ID	1008308-03			1008330-02			1008330-01			1008435-01		
FRACTION: OV	SAMP_DATE	8/17/2010			8/18/2010			8/18/2010			8/26/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		3.8	J	P
ACETONE		5	U		16			5	U		33		
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.3	J	P
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TW3011-20100826		
SDG: 50063-4	LAB_ID	1008435-02		
FRACTION: OV	SAMP_DATE	8/26/2010		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U	
1,1-DICHLOROETHANE		0.5	U	
1,1-DICHLOROETHENE		0.5	U	
1,2-DICHLOROETHANE		0.5	U	
2-BUTANONE		1	U	
ACETONE		2.8	U	A
BENZENE		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U	
ETHYLBENZENE		0.5	U	
M+P-XYLENES		0.5	U	
METHYLENE CHLORIDE		0.5	U	
O-XYLENE		0.5	U	
TETRACHLOROETHENE		0.52	J	P
TOLUENE		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U	
TRICHLOROETHENE		0.53	J	P
TRICHLOROFLUOROMETHANE		0.5	U	
VINYL CHLORIDE		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3010-188.0188.5			BPS1-SB3011-48.549.0			BPS1-TB09-20100817		
SDG: 50063-4	LAB_ID	1008308-04			1008308-13			1008308-01		
FRACTION: OV	SAMP_DATE	8/17/2010			8/18/2010			8/17/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	77.0			90.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.033	U		0.048	U		0.025	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.033	U		0.048	U		0.025	U	
1,1-DICHLOROETHANE		0.033	U		0.048	U		0.025	U	
1,1-DICHLOROETHENE		0.033	U		0.048	U		0.025	U	
1,2-DICHLOROETHANE		0.033	U		0.048	U		0.025	U	
2-BUTANONE		0.065	U		0.096	U		0.05	U	
ACETONE		0.33	U		0.48	U		0.25	U	
BENZENE		0.033	U		0.048	U		0.025	U	
CIS-1,2-DICHLOROETHENE		0.033	U		0.048	U		0.025	U	
DICHLORODIFLUOROMETHANE		0.065	U		0.096	U		0.05	U	
ETHYLBENZENE		0.033	U		0.048	U		0.025	U	
M+P-XYLENES		0.065	U		0.096	U		0.05	U	
METHYLENE CHLORIDE		0.065	U		0.096	U		0.05	U	
O-XYLENE		0.033	U		0.048	U		0.025	U	
TETRACHLOROETHENE		0.033	U		0.048	U		0.025	U	
TOLUENE		0.033	U		0.048	U		0.025	U	
TRANS-1,2-DICHLOROETHENE		0.033	U		0.048	U		0.025	U	
TRICHLOROETHENE		0.065	U		0.096	U		0.05	U	
TRICHLOROFLUOROMETHANE		0.033	U		0.048	U		0.025	U	
VINYL CHLORIDE		0.033	U		0.048	U		0.025	U	

PROJ_NO: 02230 SDG: 50063-4 FRACTION: PEST/PCB MEDIA: WATER	NSAMPLE	BPS1-FB02-20100818			BPS1-GW3010-144148			BPS1-GW3010-196200			BPS1-GWDup01-20100817		
	LAB_ID	1008308-10			1008308-02			1008308-05			1008308-06		
	SAMP_DATE	8/18/2010			8/17/2010			8/17/2010			8/17/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF										BPS1-GW3010-144148		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.04	U		0.04	U		0.04	U		0.04	U	
AROCLOR-1242		0.08	U		0.25	J	Q	0.17	J	PQ	0.26	J	Q
AROCLOR-1248		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1254		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230 SDG: 50063-4 FRACTION: PEST/PCB MEDIA: WATER	NSAMPLE	BPS1-RB04-20100818			BPS1-TW3011-20100826		
	LAB_ID	1008330-02			1008435-02		
	SAMP_DATE	8/18/2010			8/26/2010		
	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U	
AROCLOR-1232		0.04	U		0.04	U	
AROCLOR-1242		0.08	U		0.08	U	
AROCLOR-1248		0.08	U		0.076	J	P
AROCLOR-1254		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DrumIDW-01-20100818			BPS1-DrumIDW-01-20100818-DL			BPS1-SB3010-0008			BPS1-SB3010-118148		
SDG: 50063-4	LAB_ID	1008310-02			1008310-02RE1			1008308-07			1008308-09		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010			8/18/2010			8/15/2010			8/16/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	76.0			76.0			96.0			69.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.017	U					0.014	U		0.019	U	
AROCLOR-1221		0.017	U					0.014	U		0.019	U	
AROCLOR-1232		0.017	U					0.014	U		0.019	U	
AROCLOR-1242		0.017	U					0.029	J	PQ	0.019	U	
AROCLOR-1248					24	J	P	0.007	U		0.0097	U	
AROCLOR-1254		0.017	U					0.014	U		0.019	U	
AROCLOR-1260		0.017	U					0.01	J	P	0.019	U	
AROCLOR-1262		0.017	U					0.014	U		0.019	U	
AROCLOR-1268		0.0089	U					0.007	U		0.0097	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3010-188.0188.5			BPS1-SB3010-5868			BPS1-SB3011-1828			BPS1-SB3011-3848		
SDG: 50063-4	LAB_ID	1008308-04			1008308-08			1008308-11			1008308-12		
FRACTION: PEST/PCB	SAMP_DATE	8/17/2010			8/16/2010			8/18/2010			8/18/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	77.0			86.0			92.0			76.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.017	U		0.015	U		0.014	U		0.017	U	
AROCLOR-1221		0.017	U		0.015	U		0.014	U		0.017	U	
AROCLOR-1232		0.017	U		0.015	U		0.014	U		0.017	U	
AROCLOR-1242		0.017	U		0.015	U		0.014	U		0.017	U	
AROCLOR-1248		0.0087	U		0.0078	U		0.0073	U		0.0088	U	
AROCLOR-1254		0.017	U		0.015	U		0.014	U		0.017	U	
AROCLOR-1260		0.017	U		0.015	U		0.014	U		0.017	U	
AROCLOR-1262		0.017	U		0.015	U		0.014	U		0.017	U	
AROCLOR-1268		0.0087	U		0.0078	U		0.0073	U		0.0088	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3011-48.549.0		
SDG: 50063-4	LAB_ID	1008308-13		
FRACTION: PEST/PCB	SAMP_DATE	8/18/2010		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	90.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.015	U	
AROCLOR-1221		0.015	U	
AROCLOR-1232		0.015	U	
AROCLOR-1242		0.015	U	
AROCLOR-1248		0.0075	U	
AROCLOR-1254		0.015	U	
AROCLOR-1260		0.015	U	
AROCLOR-1262		0.015	U	
AROCLOR-1268		0.0075	U	

PROJ_NO: 02230	NSAMPLE	BPS1-RB04-20100818		
SDG: 50063-4	LAB_ID	1008330-02		
FRACTION: PET	SAMP_DATE	8/18/2010		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TPH (C06-C10)		50	U	
TPH (C10-C28)		180	J	CP

PROJ_NO: 02230	NSAMPLE	BPS1-SB3010-188.0188.5			BPS1-SB3011-48.549.0			BPS1-TB09-20100817		
SDG: 50063-4	LAB_ID	1008308-04			1008308-13			1008308-01		
FRACTION: PET	SAMP_DATE	8/17/2010			8/18/2010			8/17/2010		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	77.0			90.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		5.2	UJ	C	7.7	UJ	C	4	UJ	C
TPH (C10-C28)		6.5	U		6.8	J	P			

PROJ_NO: 02230	NSAMPLE	BPS1-DrumIDW-01-20100818
SDG: 50063-4	LAB_ID	1008310-01
FRACTION: TCLPV	SAMP_DATE	8/18/2010
MEDIA: TCLP	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1-DICHLOROETHENE	50	U	
1,2-DICHLOROETHANE	50	U	
2-BUTANONE	100	U	
BENZENE	50	U	
CARBON TETRACHLORIDE	50	U	
CHLOROBENZENE	50	U	
CHLOROFORM	50	U	
TETRACHLOROETHENE	50	U	
TRICHLOROETHENE	25	U	
VINYL CHLORIDE	25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DrumIDW-01-20100818
SDG: 50063-4	LAB_ID	1008310-01
FRACTION: TCLPS	SAMP_DATE	8/18/2010
MEDIA: TCLP	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,4-DICHLOROBENZENE	5	U	
2,4,5-TP (SILVEX)	50	U	
2,4,5-TRICHLOROPHENOL	1	U	
2,4,6-TRICHLOROPHENOL	1	U	
2,4-D	50	U	
2,4-DINITROTOLUENE	5	U	
2-METHYLPHENOL	5	U	
3-METHYLPHENOL	5	U	
4-METHYLPHENOL	1	J	P
CHLORDANE	5	UJ	C
ENDRIN	5	U	
GAMMA-BHC (LINDANE)	5	U	
HEPTACHLOR	5	U	
HEPTACHLOR EPOXIDE	5	U	
HEXACHLOROBENZENE	2.5	U	
HEXACHLOROBUTADIENE	5	U	
HEXACHLOROETHANE	5	U	
METHOXYCHLOR	5	U	
NITROBENZENE	5	U	
PENTACHLOROPHENOL	1	U	
PYRIDINE	5	U	
TOXAPHENE	10	UJ	C

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: R. SOK **DATE:** November 30, 2010

FROM: MEGAN CARSON **COPIES:** DV FILE

SUBJECT: **INORGANIC DATA VALIDATION-TCLP SELECT METALS, CORROSIVITY, IGNITABILITY, REACTIVITY, TOC, AND PERCENT SOLIDS**
NWIRP BETHPAGE
SDG 50063-4

SAMPLES: 7/Soil/

BPS1-SB3010-0008	BPS1-SB3010-118148
BPS1-SB3010-188.0188.5	BPS1-SB3010-5868
BPS1-SB3011-1828	BPS1-SB3011-3848
BPS1-SB3011-48.549.0	

1/IDW/
BPS1-DrumIDW-01-20100818

1/Water/
BPS1-RB04-20100818

Overview

The sample set for NWIRP Bethpage, SDG 50063-4, consists of seven (7) soil samples, one (1) Investigative derived waste (IDW) sample, and one (1) rinsate blank.

Sample BPS1-DrumIDW-01-20100818 was analyzed for toxicity characteristic leaching procedure (TCLP) select metals including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Sample BPS1-DrumIDW-01-20100818 was also analyzed for corrosivity (pH), ignitability (flashpoint), and reactivity (cyanide and sulfide). All soil samples were also analyzed for percent solids. Samples BPS1-SB3010-188.0188.5, BPS1-RB04-20100818, and BPS1-SB3011-48.549.0 were analyzed for total organic carbon (TOC). The samples were collected by Tetra Tech NUS on August 16th, 17th, 18th, 2010 and analyzed by TriMatrix Laboratories. Metals analyses were conducted using SW-846 method 6010C. Mercury analyses were conducted using SW-846 method 7470A. Corrosivity analyses were conducted using method 9045C. Ignitability analyses were conducted using method 1020A. Reactivity analyses were conducted using methods USEPA 9014 and 7.3.4.2. TOC analyses were conducted using method MSA 29-3.5.2. Percent solid analyses were conducted by method 3550B.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibration Verification Results
• Laboratory Method / Preparation Blank Analyses
* • ICP Interference Results
* • Matrix Spike / Matrix Spike Duplicate Recoveries
* • Laboratory Duplicate Results
* • Laboratory Control Standard Results
* • ICP Serial Dilution Results

* • Detection Limits
* • Analyte Quantitation

Metals:

The following contaminants were detected in preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Barium	35 ug/L	175 ug/L
Mercury	0.092 ug/L	0.46 ug/L

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive barium result was less than the blank action level reported and was qualified nondetected (U) for laboratory blank contamination.

Positive results greater than the detection limit (DL) but less than the limit of quantitation (LOQ) were qualified as estimated (J).

Notes

Executive Summary

Laboratory Performance: Preparation blank contamination resulted in the qualification of barium results.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Data Validation" as amended for Region II and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories", January 2006.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C – Region II Worksheets
4. Appendix D - Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-DrumIDW-01-20100818			BPS1-DrumIDW-01-20100818-RE		
SDG: 50063-4	LAB_ID	1008310-01			1008310-01		
FRACTION: TCLPM	SAMP_DATE	8/18/2010			8/18/2010		
MEDIA: TCLP	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ARSENIC					100	U	
BARIUM		81	U	A			
CADMIUM		5	U				
CHROMIUM					12	J	P
LEAD		50	U				
MERCURY		0.1	U				
SELENIUM		100	U				
SILVER		5	U				

PROJ_NO: 02230	NSAMPLE	BPS1-DrumIDW-01-20100818											
SDG: 50063-4	LAB_ID	1008310-01											
FRACTION: MISC	SAMP_DATE	8/18/2010											
MEDIA: SOIL	QC_TYPE	NM											
	UNITS	%			F			MG/KG			S.U.		
	PCT_SOLIDS	76.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
FLASHPOINT					200								
PERCENT SOLIDS		76											
PH											10.7		
REACTIVE CYANIDE								250	U				
REACTIVE SULFIDE								10	U				
TOTAL ORGANIC CARBON													

PROJ_NO: 02230 SDG: 50063-4 FRACTION: MISC MEDIA: SOIL	NSAMPLE	BPS1-SB3010-0008			BPS1-SB3010-118148			BPS1-SB3010-188.0188.5			BPS1-SB3010-5868		
	LAB_ID	1008308-07			1008308-09			1008308-04			1008308-08		
	SAMP_DATE	8/15/2010			8/16/2010			8/17/2010			8/16/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	96.0			69.0			77.0			86.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
FLASHPOINT													
PERCENT SOLIDS		96			69			77			86		
PH													
REACTIVE CYANIDE													
REACTIVE SULFIDE													
TOTAL ORGANIC CARBON								0.01	U				

PROJ_NO: 02230 SDG: 50063-4 FRACTION: MISC MEDIA: SOIL	NSAMPLE	BPS1-SB3011-1828			BPS1-SB3011-3848			BPS1-SB3011-48.549.0		
	LAB_ID	1008308-11			1008308-12			1008308-13		
	SAMP_DATE	8/18/2010			8/18/2010			8/18/2010		
	QC_TYPE	NM			NM			NM		
	UNITS	%			%			%		
	PCT_SOLIDS	92.0			76.0			90.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
FLASHPOINT										
PERCENT SOLIDS		92			76			90		
PH										
REACTIVE CYANIDE										
REACTIVE SULFIDE										
TOTAL ORGANIC CARBON								0.01	U	

PROJ_NO: 02230	NSAMPLE	BPS1-RB04-20100818		
SDG: 50063-4	LAB_ID	1008330-02		
FRACTION: MISC	SAMP_DATE	8/18/2010		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TOTAL ORGANIC CARBON		0.43	J	P

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **MARCH 3, 2011**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / PCB**
NWIRP BETHPAGE CTO WE44
SDG 50063-6

SAMPLES: 24 / Aqueous / VOC

BPS1-DUP01-20101130
BPS1-FW-MW01-20101130
BPS1-FW-MW03-20101130
BPS1-RB01-20101201
BPS1-TB01-20101129
BPS1-TT-MW301I-20101201
BPS1-TT-MW302D-20101129
BPS1-TT-MW302I2-20101129
BPS1-TT-MW303D-20101129
BPS1-TT-MW303I2-20101129
BPS1-TT-MW304D-20101130
BPS1-TT-MW304I2-20101130
BPS1-DUP02-20101130
BPS1-FW-MW02-20101130
BPS1-HN-29I-20101201
BPS1-SB01-20101201
BPS1-TT-MW301D-20101201
BPS1-TT-MW301S-20101201
BPS1-TT-MW302I1-20101130
BPS1-TT-MW302S-20101130
BPS1-TT-MW303I1-20101130
BPS1-TT-MW303S-20101130
BPS1-TT-MW304I1-20101201
BPS1-TT-MW304S-20101201

23 / Aqueous / PCB

BPS1-DUP01-20101130
BPS1-FW-MW01-20101130
BPS1-FW-MW03-20101130
BPS1-RB01-20101201
BPS1-TT-MW301D-20101201
BPS1-TT-MW301S-20101201
BPS1-TT-MW302I1-20101130
BPS1-TT-MW302S-20101130
BPS1-TT-MW303I1-20101130
BPS1-TT-MW303S-20101130
BPS1-TT-MW304I1-20101201
BPS1-TT-MW304S-201012
BPS1-DUP02-20101130
BPS1-FW-MW02-20101130
BPS1-HN-29I-20101201
BPS1-SB01-20101201
BPS1-TT-MW301I-20101201
BPS1-TT-MW302D-20101129
BPS1-TT-MW302I2-20101129
BPS1-TT-MW303D-20101129
BPS1-TT-MW303I2-20101129
BPS1-TT-MW304D-20101130
BPS1-TT-MW304I2-20101130

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-6 consisted of twenty-four (24) aqueous samples including one (1) aqueous rinse blank, one (1) aqueous trip blank, and one (1) aqueous sample blank. The samples were analyzed for a select list of volatile organic compounds (VOC) and polychlorinated biphenyls (PCB) as listed above. Two field duplicate sample pairs were associated with this sample delivery group (SDG); BPS1-DUP01-20101130 / BPS1-TT-MW304S-20101201 and BPS1-DUP02-20101130 / BPS1-FW-MW02-20101130.

The samples were collected by Tetra Tech on November 29, 30, and December 1, 2010 and analyzed by TriMatrix Laboratories. All analyses were conducted in accordance with EPA Methods SW-846 8260B and 8082 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

	• Data Completeness
*	• Holding Times
*	• GC/MS Tuning
*	• Initial and Continuing Calibration
	• Blank Analyses
*	• System Monitoring Compound/Surrogate Recovery
*	• Laboratory Blank Spike Results
*	• Internal Standard Recoveries
*	• Field Duplicate Precision
	• Compound Quantitation
	• Compound Identification
*	• Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile (VOC)

The following common laboratory contaminants were detected in the rinse blank for BPS1-RB01-20101201 affecting all SDG samples.

Compound	Maximum Conc. µg/L	Action Level µg/L
2-Butanone	5	50
Acetone	38	380
Methylene chloride	1	10

An action level of 10X the maximum concentration for the common laboratory contaminant acetone was established to evaluate laboratory contamination. Dilution factors and sample aliquots, if applicable, were taken into consideration during the application of all action levels. The positive results for acetone below the blank action level for acetone were qualified as non-detected, (U). The trip and sample blanks were not qualified due to method blank contamination.

PCB

Regarding positive Aroclor-1242 detections, the laboratory stated the following in their case narrative: "A conclusive PCB Aroclor identification is not possible due to matrix interference and/or weathering of the sample. The identity of the reported Aroclor is tentative." The laboratory was contacted for a closer examination of the raw data to ensure that other Aroclor results were not omitted, particularly Aroclor-1248. The laboratory provided raw data and Aroclor-1242 and Aroclor-1248 standard chromatograms for visual comparison. These chromatograms are included in the Appendix C of this report.

Aroclor-1242 was reported by the laboratory in all environmental samples except for sample BPS1-TT-MW304S-20101201 and the field quality control blanks. Because the presence of Aroclors are unusual in water samples, the data reviewer has examined the chromatograms of the method and field quality control blanks, the samples with detections, and compared them to the patterns of Aroclor standards 1242 and 1248. No detections of Aroclors were reported in the method and field quality control blanks. The chromatograms of the method and field quality control blanks do not contain a discernable pattern

representative of Aroclors 1242 and 1248. This is an indication that the appearance of Aroclors in the samples is not a result of laboratory or field personnel contamination of the samples.

The chromatograms for Aroclors 1242 and 1248 share several common peaks within their characteristic patterns. The peaks common to both Aroclor mixtures are contained in each of the environmental samples that exhibit detections. Because of shared compounds and similarities in portions of the chromatographic patterns for the mixtures of Aroclors 1242 and 1248, it is difficult to determine which Aroclor is predominant or how to precisely quantify each Aroclor separately. The laboratory has therefore reported a single Aroclor mixture, Aroclor-1242, in each sample with a detection. A "weathering effect" or degradation of compounds within the specific mixtures is also a likely factor in precisely identifying the Aroclor mixture present. Despite the aforementioned complexities associated with exact identification and quantification, the reviewer has concluded that an Aroclor mixture is present in the affected samples. Therefore, because the exact identification of the Aroclor mixture is complicated by the similarities between Aroclors 1242 and 1248 and from natural "weathering" of the mixture, detected results reported in samples have been qualified as estimated, (J).

The relative percent difference (RPD) between analytical columns was greater than the 25% quality control limit for the positive Aroclor-1242 result for samples BPS1-DUP01-20101130 and BPS1-TT-MW303S-20101130. The positive Aroclor-1242 result for the samples were qualified estimated, (J).

Additional Comments

Positive results below the Limit of Quantitation (LOQ) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Two Aroclor analysis continuing calibration verifications (CCV) had surrogate %Rs greater than the quality control limit for decachlorobiphenyl (DCB) and one CCV had a surrogate %R greater than the quality control limit for tetrachloro-m-xylene (TCMX). No action was taken as this did not affect the sample analyses.

All reported Aroclor results were reported from the lower of the two column Aroclor results.

Some of the Aroclor %D results for the CCVs were not calculated by the laboratory. The data validation chemist manually calculated the CCVs where necessary.

The PCB laboratory control sample (LCS) and the LCS duplicate (LCSD) analyses as well as the matrix spike (MS) and MS duplicate (MSD) analyses were spiked and analyzed only for the analytes Aroclor-1016 and Aroclor-1260.

Samples were diluted for the Aroclor-1242 analysis as listed below.

Sample	Dilution
BPS1-FW-MW03-20101130	2X
BPS1-TT-MW302I2-20101129	2X
BPS1-TT-MW303I1-20101130	4X
BPS1-TT-MW303I2-20101129	2X
BPS1-TT-MW304D-20101130	4X

The original Form I for sample BPS1-HN-29I-20101201 incorrectly displayed a non-detected result for Aroclor-1242. The Form I for the sample was corrected and revised by the laboratory.

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC method blank contamination resulted in qualification of sample acetone results. The positive Aroclor-1242 result for samples BPS1-DUP01-20101130 and BPS1-TT-MW303S-20101130 were qualified due to the RPD between analytical columns.

Other Factors Affecting Data Quality: Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit. Per the laboratory narrative for Aroclor-1242 positive results, "A conclusive PCB Aroclor identification is not possible due to matrix interference and/or weathering of the sample. The identity of the reported Aroclor is tentative." All positive Aroclor-1242 sample results were qualified estimated, (J), due to this issue.

The data for these analyses were reviewed with reference to the USEPA Region II Standard Operating Procedures for Validation - SOP HW-24 Revision #2 Volatile Organic Compounds by SW-846 Method 8260B (August 2008) and SOP HW-45 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography SW-846 Method 8082A (October 2006), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

TetraTech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations, correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20101130			BPS1-DUP02-20101130			BPS1-FW-MW01-20101130			BPS1-FW-MW02-20101130		
SDG: 50063-6	LAB_ID	1012046-10			1012046-16			1012046-11			1012046-13		
FRACTION: OV	SAMP_DATE	11/30/2010			11/30/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW303S-20101130			BPS1-FW-MW02-20101130								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.65	J	P	7.9			0.62	J	P
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.62	J	P	0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		3.8			0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.46	J	P	0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		32			0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		1			28			180			29		
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.51	J	P	0.5	U	
TRICHLOROETHENE		0.25	U		2.2			15			2.4		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW03-20101130			BPS1-HN-29I-20101201			BPS1-RB01-20101201			BPS1-SB01-20101201		
SDG: 50063-6	LAB_ID	1012046-15			1012046-24			1012046-17			1012046-23		
FRACTION: OV	SAMP_DATE	11/30/2010			12/1/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.29	J	P	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		5			1	U	
ACETONE		5	U		5	U		38			5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.34	J	P	0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		1			0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		67			1.3			0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.21	J	P
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		3.8			0.57	J	P	0.25	U		0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB01-20101129			BPS1-TT-MW301D-20101201			BPS1-TT-MW301I-20101201			BPS1-TT-MW301S-20101201		
SDG: 50063-6	LAB_ID	1012046-01			1012046-20			1012046-22			1012046-18		
FRACTION: OV	SAMP_DATE	11/29/2010			12/1/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.45	J	P	0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		4.5	J	P	5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.57	J	P	0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	J	P	0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		2.1			0.25	U		0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302D-20101129			BPS1-TT-MW302I1-20101130			BPS1-TT-MW302I2-20101129			BPS1-TT-MW302S-20101130		
SDG: 50063-6	LAB_ID	1012046-02			1012046-06			1012046-04			1012046-08		
FRACTION: OV	SAMP_DATE	11/29/2010			11/30/2010			11/29/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		4.1	U	B	5	U		2.7	U	B	5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.32	J	P
TOLUENE		0.25	J	P	0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		1			0.55	J	P	0.88	J	P	0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303D-20101129			BPS1-TT-MW303I1-20101130			BPS1-TT-MW303I2-20101129			BPS1-TT-MW303S-20101130		
SDG: 50063-6	LAB_ID	1012046-03			1012046-07			1012046-05			1012046-09		
FRACTION: OV	SAMP_DATE	11/29/2010			11/30/2010			11/29/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		1.7			0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		2			0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		1.9			0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.28	J	P	0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		79			2.1			1		
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.45	J	P	17			2.6			0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.3	J	P	0.23	J	P	0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304D-20101130			BPS1-TT-MW304I1-20101201			BPS1-TT-MW304I2-20101130			BPS1-TT-MW304S-20101201		
SDG: 50063-6	LAB_ID	1012046-12			1012046-19			1012046-14			1012046-21		
FRACTION: OV	SAMP_DATE	11/30/2010			12/1/2010			11/30/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		15			0.64	J	P	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.44	J	P	0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		6.9			0.51	J	P	0.5	U	
1,1-DICHLOROETHENE		0.5	U		1			0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		2.6	U	B	5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		85			8.8			0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	J	P	93			17			0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.7	J	P	0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		27			5.4			0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20101130			BPS1-DUP01-20101130RE			BPS1-DUP02-20101130			BPS1-DUP02-20101130RE		
SDG: 50063-6	LAB_ID	1012046-10			1012046-10RE1			1012046-16			1012046-16RE1		
FRACTION: PCB	SAMP_DATE	11/30/2010			11/30/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW303S-20101130			BPS1-TT-MW303S-20101130			BPS1-FW-MW02-20101130			BPS1-FW-MW02-20101130		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					0.056	J	PQU				0.29	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW01-20101130			BPS1-FW-MW01-20101130RE1			BPS1-FW-MW02-20101130			BPS1-FW-MW02-20101130RE1		
SDG: 50063-6	LAB_ID	1012046-11			1012046-11RE1			1012046-13			1012046-13RE1		
FRACTION: PCB	SAMP_DATE	11/30/2010			11/30/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					1	J	Q				0.3	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW03-20101130			BPS1-FW-MW03-20101130RE			BPS1-HN-29I-20101201			BPS1-HN-29I-20101201RE1		
SDG: 50063-6	LAB_ID	1012046-15			1012046-15RE1			1012046-24			1012046-24RE1		
FRACTION: PCB	SAMP_DATE	11/30/2010			11/30/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					2.8	J	Q				0.94	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-RB01-20101201			BPS1-SB01-20101201			BPS1-TT-MW301D-20101201			BPS1-TT-MW301D-20101201RE1		
SDG: 50063-6	LAB_ID	1012046-17			1012046-23			1012046-20			1012046-20RE1		
FRACTION: PCB	SAMP_DATE	12/1/2010			12/1/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U				
AROCLOR-1221		0.08	U		0.08	U		0.08	U				
AROCLOR-1232		0.04	U		0.04	U		0.04	U				
AROCLOR-1242		0.08	U		0.08	U					0.79	J	Q
AROCLOR-1248		0.08	U		0.08	U		0.08	U				
AROCLOR-1254		0.08	U		0.08	U		0.08	U				
AROCLOR-1260		0.08	U		0.08	U		0.08	U				
AROCLOR-1262		0.08	U		0.08	U		0.08	U				
AROCLOR-1268		0.08	U		0.08	U		0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW301I-20101201			BPS1-TT-MW301I-20101201RE			BPS1-TT-MW301S-20101201			BPS1-TT-MW301S-20101201RE1		
SDG: 50063-6	LAB_ID	1012046-22			1012046-22RE1			1012046-18			1012046-18RE1		
FRACTION: PCB	SAMP_DATE	12/1/2010			12/1/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					0.69	J	Q				0.57	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302D-20101129			BPS1-TT-MW302D-20101129RE1			BPS1-TT-MW302I1-20101130			BPS1-TT-MW302I1-20101130RE		
SDG: 50063-6	LAB_ID	1012046-02			1012046-02RE1			1012046-06			1012046-06RE1		
FRACTION: PCB	SAMP_DATE	11/29/2010			11/29/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					1.1	J	Q				2	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302I2-20101129			BPS1-TT-MW302I2-20101129RE			BPS1-TT-MW302S-20101130			BPS1-TT-MW302S-20101130RE1		
SDG: 50063-6	LAB_ID	1012046-04			1012046-04RE1			1012046-08			1012046-08RE1		
FRACTION: PCB	SAMP_DATE	11/29/2010			11/29/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					2.6	J	Q				0.6	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303D-20101129			BPS1-TT-MW303D-20101129RE			BPS1-TT-MW303I1-20101130			BPS1-TT-MW303I1-20101130RE		
SDG: 50063-6	LAB_ID	1012046-03			1012046-03RE1			1012046-07			1012046-07RE1		
FRACTION: PCB	SAMP_DATE	11/29/2010			11/29/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					0.42	J	Q				3.9	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I2-20101129			BPS1-TT-MW303I2-20101129RE1			BPS1-TT-MW303S-20101130			BPS1-TT-MW303S-20101130RE1		
SDG: 50063-6	LAB_ID	1012046-05			1012046-05RE1			1012046-09			1012046-09RE1		
FRACTION: PCB	SAMP_DATE	11/29/2010			11/29/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.1	U					0.08	U				
AROCLOR-1221		0.1	U					0.08	U				
AROCLOR-1232		0.052	U					0.04	U				
AROCLOR-1242					3.4	J	Q				0.052	J	PQU
AROCLOR-1248		0.1	U					0.08	U				
AROCLOR-1254		0.1	U					0.08	U				
AROCLOR-1260		0.1	U					0.08	U				
AROCLOR-1262		0.1	U					0.08	U				
AROCLOR-1268		0.1	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304D-20101130			BPS1-TT-MW304D-20101130RE			BPS1-TT-MW304I1-20101201			BPS1-TT-MW304I1-20101201RE		
SDG: 50063-6	LAB_ID	1012046-12			1012046-12RE1			1012046-19			1012046-19RE1		
FRACTION: PCB	SAMP_DATE	11/30/2010			11/30/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U					0.08	U				
AROCLOR-1221		0.08	U					0.08	U				
AROCLOR-1232		0.04	U					0.04	U				
AROCLOR-1242					4	J	Q				0.5	J	Q
AROCLOR-1248		0.08	U					0.08	U				
AROCLOR-1254		0.08	U					0.08	U				
AROCLOR-1260		0.08	U					0.08	U				
AROCLOR-1262		0.08	U					0.08	U				
AROCLOR-1268		0.08	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304I2-20101130			BPS1-TT-MW304I2-20101130RE			BPS1-TT-MW304S-20101201		
SDG: 50063-6	LAB_ID	1012046-14			1012046-14RE1			1012046-21		
FRACTION: PCB	SAMP_DATE	11/30/2010			11/30/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.085	U					0.08	U	
AROCLOR-1221		0.085	U					0.08	U	
AROCLOR-1232		0.043	U					0.04	U	
AROCLOR-1242					1.7	J	Q	0.08	U	
AROCLOR-1248		0.085	U					0.08	U	
AROCLOR-1254		0.085	U					0.08	U	
AROCLOR-1260		0.085	U					0.08	U	
AROCLOR-1262		0.085	U					0.08	U	
AROCLOR-1268		0.085	U					0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20101130			BPS1-DUP02-20101130			BPS1-FW-MW01-20101130			BPS1-FW-MW02-20101130		
SDG: 50063-6	LAB_ID	1012046-10			1012046-16			1012046-11			1012046-13		
FRACTION: OV	SAMP_DATE	11/30/2010			11/30/2010			11/30/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW303S-20101130			BPS1-FW-MW02-20101130								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.65	J	P	7.9			0.62	J	P
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.62	J	P	0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		3.8			0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.46	J	P	0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		32			0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		1			28			180			29		
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.51	J	P	0.5	U	
TRICHLOROETHENE		0.25	U		2.2			15			2.4		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW03-20101130			BPS1-HN-29I-20101201			BPS1-RB01-20101201			BPS1-SB01-20101201		
SDG: 50063-6	LAB_ID	1012046-15			1012046-24			1012046-17			1012046-23		
FRACTION: OV	SAMP_DATE	11/30/2010			12/1/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.29	J	P	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		5			1	U	
ACETONE		5	U		5	U		38			5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.34	J	P	0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		1			0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		67			1.3			0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.21	J	P
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		3.8			0.57	J	P	0.25	U		0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB01-20101129			BPS1-TT-MW301D-20101201			BPS1-TT-MW301I-20101201			BPS1-TT-MW301S-20101201		
SDG: 50063-6	LAB_ID	1012046-01			1012046-20			1012046-22			1012046-18		
FRACTION: OV	SAMP_DATE	11/29/2010			12/1/2010			12/1/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.45	J	P	0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		4.5	J	P	5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.57	J	P	0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	J	P	0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		2.1			0.25	U		0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302D-20101129			BPS1-TT-MW302I1-20101130			BPS1-TT-MW302I2-20101129			BPS1-TT-MW302S-20101130		
SDG: 50063-6	LAB_ID	1012046-02			1012046-06			1012046-04			1012046-08		
FRACTION: OV	SAMP_DATE	11/29/2010			11/30/2010			11/29/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U	B	5	U		5	U	B	5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.32	J	P
TOLUENE		0.25	J	P	0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		1			0.55	J	P	0.88	J	P	0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303D-20101129			BPS1-TT-MW303I1-20101130			BPS1-TT-MW303I2-20101129			BPS1-TT-MW303S-20101130		
SDG: 50063-6	LAB_ID	1012046-03			1012046-07			1012046-05			1012046-09		
FRACTION: OV	SAMP_DATE	11/29/2010			11/30/2010			11/29/2010			11/30/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		1.7			0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		2			0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		1.9			0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.28	J	P	0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		79			2.1			1		
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.45	J	P	17			2.6			0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.3	J	P	0.23	J	P	0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304D-20101130			BPS1-TT-MW304I1-20101201			BPS1-TT-MW304I2-20101130			BPS1-TT-MW304S-20101201		
SDG: 50063-6	LAB_ID	1012046-12			1012046-19			1012046-14			1012046-21		
FRACTION: OV	SAMP_DATE	11/30/2010			12/1/2010			11/30/2010			12/1/2010		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		15			0.64	J	P	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.44	J	P	0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		6.9			0.51	J	P	0.5	U	
1,1-DICHLOROETHENE		0.5	U		1			0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
ACETONE		5	U	B	5	U		5	U		5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		85			8.8			0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	J	P	93			17			0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.7	J	P	0.5	U		0.5	U	
TRICHLOROETHENE		0.25	U		27			5.4			0.25	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **MAY 2, 2011**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / PCB**
NWIRP BETHPAGE CTO WE44
SDG 50063-8

SAMPLES: 26 / Aqueous / VOC

BPS1-DUP01-20110302	BPS1-DUP02-20110302	BPS1-FB01-20110303
BPS1-FW-MW01-20110302	BPS1-FW-MW02-20110302	BPS1-FW-MW03-20110303
BPS1-HN-MW29I-20110302	BPS1-RB01-20110302	BPS1-TB01-20110228
BPS1-TB02-20110301	BPS1-TB03-20110303	BPS1-TT-MW301D-20110302
BPS1-TT-MW301I-20110302	BPS1-TT-MW301S-20110302	BPS1-TT-MW302D-20110301
BPS1-TT-MW302I1-20110301	BPS1-TT-MW302I2-20110301	BPS1-TT-MW302S-20110301
BPS1-TT-MW303D-20110301	BPS1-TT-MW303I1-20110301	BPS1-TT-MW303I2-20110301
BPS1-TT-MW303S-20110301	BPS1-TT-MW304D-20110302	BPS1-TT-MW304I1-20110302
BPS1-TT-MW304I2-20110303	BPS1-TT-MW304S-20110303	

26 / Aqueous / PCB

BPS1-DUP01-20110302	BPS1-DUP02-20110302	BPS1-FB01-20110303
BPS1-FW-MW01-20110302	BPS1-FW-MW02-20110302	BPS1-FW-MW03-20110303
BPS1-HN-MW29I-20110302	BPS1-RB01-20110302	BPS1-SW01-20110228
BPS1-SW01-20110301	BPS1-SW01-20110303	BPS1-TT-MW301D-20110302
BPS1-TT-MW301I-20110302	BPS1-TT-MW301S-20110302	BPS1-TT-MW302D-20110301
BPS1-TT-MW302I1-20110301	BPS1-TT-MW302I2-20110301	BPS1-TT-MW302S-20110301
BPS1-TT-MW303D-20110301	BPS1-TT-MW303I1-20110301	BPS1-TT-MW303I2-20110301
BPS1-TT-MW303S-20110301	BPS1-TT-MW304D-20110302	BPS1-TT-MW304I1-20110302
BPS1-TT-MW304I2-20110303	BPS1-TT-MW304S-20110303	

5 / Soil / PCB

S1-SB3005-DR1	S1-SB3005-DR2	S1-SB3005-DR3
S1-SB3005-DR4	S1-SB3005-DR5	

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-8 consisted of twenty-nine (29) aqueous samples and five (5) soil environmental samples including three (3) aqueous trip blank samples, one (1) aqueous rinse blank sample, and one (1) aqueous field blank sample. A sample set of twenty-six (26) aqueous samples including the trip and field blank samples were analyzed for a select list of volatile organic compounds (VOC). A different sample set of twenty-six (26) aqueous samples were analyzed for polychlorinated biphenyls (PCB) as listed above. The five (5) soil samples were analyzed for PCBs only. Two field duplicate sample pairs were associated with this sample delivery group (SDG); BPS1-DUP01-20110302 / BPS1-TT-MW301D-20110302 and BPS1-DUP02-20110302 / BPS1-TT-MW304D-20110302.

The samples were collected by Tetra Tech on February 28, and March 1, 2, and 3, 2011 and analyzed by TriMatrix Laboratories. All analyses were conducted in accordance with EPA Methods SW-846 8260B and 8082A analytical and reporting protocols.

The data contained in this SDG was validated with regard to the following parameters:

	• Data Completeness
*	• Holding Times
*	• GC/MS Tuning
	• Initial and Continuing Calibration
	• Blank Analyses
*	• System Monitoring Compound/Surrogate Recovery
*	• Laboratory Blank Spike Results
*	• Internal Standard Recoveries
*	• Field Duplicate Precision
	• Compound Quantitation
	• Compound Identification
*	• Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile (VOC)

The following common laboratory contaminants were detected in the rinse blank BPS1-RB01-20110302 affecting all SDG samples.

Compound	Maximum Conc. µg/L	Action Level µg/L
2-Butanone	2.2	22
Acetone	8.9	89.0
Methylene chloride	0.37	3.7
Toluene	0.2	1.0

An action level of 10X the maximum concentration for the common laboratory contaminants and 5X the maximum concentration for toluene was established to evaluate for laboratory contamination. Dilution factors and sample aliquots, if applicable, were taken into consideration during the application of all action levels. The positive results for acetone, 2-butanone, and toluene below the blank action level were qualified as non-detected, (U).

The initial calibration Relative Response Factor (RRF) was less than the 0.05 quality control limit for acetone for instrument 328 on 03/01/11 and the continuing calibration verification (CCV) RRFs for acetone were less than the quality control limit on 03/06/11 @ 11:23 and 03/06/11 @ 22:20 affecting samples BPS1-TB01-20110228, BPS1-TT-MW302D-20110301, BPS1-TT-MW303D-20110301, BPS1-TT-MW302I2-20110301, BPS1-TT-MW303I2-20110301, BPS1-TT-MW302I1-20110301, BPS1-TT-MW303I1-20110301, BPS1-TT-MW302S-20110301, BPS1-TT-MW303S-20110301, BPS1-TB02-20110301, BPS1-RB01-20110302, BPS1-FB01-20110303, BPS1-TB03-20110303, BPS1-TT-MW301S-20110302, BPS1-FW-MW02-20110302, BPS1-TT-MW301D-20110302, BPS1-FW-MW01-20110302, BPS1-TT-MW304D-20110302, BPS1-DUP02-20110302, BPS1-TT-MW304I1-20110302, BPS1-DUP01-20110302, BPS1-FW-MW03-20110303, BPS1-TT-MW304I2-20110303, and BPS1-TT-MW304S-20110303. The non-detected acetone results for the aforementioned samples were qualified rejected, (UR), except where qualified for blank contamination. The positive acetone result for sample BPS1-RB01-20110302 was qualified estimated, (J).

PCB

The continuing calibration verification (CCV) Aroclor-1260 result was greater than the 15% quality control limit for the CLPEST column for instrument 158 on 03/09/11 @ 05:33. No action was taken as the CLPEST2 column Aroclor-1260 CCV was within the quality control limits and all samples had non-detected Aroclor results for all Aroclors except Aroclor-1242. All positive Aroclor-1242 sample results were reported from specific Aroclor-1242 calibrations and analyses and are not affected by this issue.

Aroclor-1242 was reported by the laboratory in all environmental samples except for sample BPS1-TT-MW304S-20110303, BPS1-SW01-20110228 and the field quality control blanks. Because the presence of Aroclors are unusual in water samples, the data reviewer has examined the chromatograms of the method and field quality control blanks, the samples with detections, and compared them to the patterns of Aroclor standards 1242 and 1248. No detections of Aroclors were reported in the method and field quality control blanks. The chromatograms of the method and field quality control blanks do not contain a discernable pattern representative of Aroclors 1242 and 1248. This is an indication that the appearance of Aroclors in the samples is not a result of laboratory or field personnel contamination of the samples.

The chromatograms for Aroclors 1242 and 1248 share several common peaks within their characteristic patterns. The peaks common to both Aroclor mixtures are contained in each of the environmental samples that exhibit detections. Because of shared compounds and similarities in portions of the chromatographic patterns for the mixtures of Aroclors 1242 and 1248, it is difficult to determine which Aroclor is predominant or how to precisely quantify each Aroclor separately. The laboratory has therefore reported a single Aroclor mixture, Aroclor-1242, in each sample with a detection. A "weathering effect" or degradation of compounds within the specific mixtures is also a likely factor in precisely identifying the Aroclor mixture present. Despite the aforementioned complexities associated with exact identification and quantification, the reviewer has concluded that an Aroclor mixture is present in the affected samples. Therefore, because the exact identification of the Aroclor mixture is complicated by the similarities between Aroclors 1242 and 1248 and from natural "weathering" of the mixture, detected results reported in samples have been qualified as estimated, (J).

The laboratory stated the following in their case narrative regarding a positive Aroclor-1242 detection for sample BPS1-TT-MW301S-20110302: "A conclusive Aroclor identification is not possible due to matrix interference and/or weathering of the sample. The result is qualitative and the identity of the reported Aroclor is tentative. The Aroclor may also be PCB-1248." The laboratory used a different set of peaks for the calibration and analysis for this particular sample. This sample was analyzed using peaks labeled as PCB9, PCB10, PCB11, PCB13, and PCB14 for the determination and quantitation of Aroclor-1242, while the other samples analyzed for Aroclor-1242 used peaks labeled as PCB7, PCB11, PCB12, PCB13, and PCB14 for the determination and quantitation of Aroclor-1242. The labeled peaks are not indicative of individual PCB congeners in this case and are used simply as reference peaks. The positive result is qualified as estimated, (J).

The relative percent difference (RPD) between analytical columns was greater than the 25% quality control limit for the positive Aroclor-1242 result for samples BPS1-DUP02-20110302, BPS1-TT-MW302S-20110301, BPS1-TT-MW303S-20110301, BPS1-TT-MW304I1-20110302, and BPS1-TT-MW304I2-20110303. Aroclor-1242 results in these samples were qualified estimated, (J).

Additional Comments

Positive results below the Limit of Quantitation (LOQ) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Sample BPS1-FW-MW01-20110302 was analyzed both undiluted and diluted 5X due to a greater than the calibration limit tetrachloroethene result in the undiluted VOC analysis. Only the tetrachloroethene result was reported from the dilution sample analysis.

The data reviewer questioned the laboratory regarding the reporting of nondetected results from the undiluted analyses of samples S1-SB3005-DR2 and S1-SB3005-DR3. The aforementioned samples contained Aroclor 1242 at concentrations of 25 and 580 mg/kg, respectively, which are several orders of magnitude greater than the Limit of Detection (LOD). Because of the relatively high concentrations of Aroclor 1242 in the samples, the chromatograms of the undiluted samples displayed peaks that are completely unresolved and the rendered the initial analyses essentially useless. The laboratory responded with an addendum to the Aroclor data validation package that included non-detected Aroclor results for the aforementioned samples at dilutions. All Aroclor results were reported from the dilution analyses of the aforementioned samples. The addendum pages are included in this report in Appendices B and D and the electronic data base (EDD) results were manually edited for the sample non-detected results which were reported from these dilutions.

Two Aroclor analysis CCVs had surrogate %Rs less than the quality control limit for decachlorobiphenyl (DCB) for both analytical columns. One CCV had surrogate %Rs greater than the quality control limit for DCB for both analytical columns. No action was taken as the CCV %R quality control limit non-compliances did not affect the sample analyses.

All reported Aroclor results for the samples were reported from the DB-35 column regardless if the result was the higher or lower of the two column Aroclor results, with the exception of sample BPS1-TT-MW304I-20110302.

Some of the Aroclor %D results for the CCVs were not calculated by the laboratory. The data validation chemist manually calculated the CCVs where necessary.

The Aroclor laboratory control sample (LCS) and the LCS duplicate (LCSD) analyses as well as the matrix spike (MS) and MS duplicate (MSD) analyses were spiked and analyzed only for the analytes Aroclor-1016 and Aroclor-1260.

Aroclor 1242 results were quantified and reported from dilution analyses in the following samples:

Sample	Dilution
BPS1-DUP02-20110302	3X
BPS1-FW-MW03-20110303	2X
BPS1-TT-MW301S-20110302	10X
BPS1-TT-MW302I1-20110301	2X
BPS1-TT-MW302I2-20110301	2X
BPS1-TT-MW303I1-20110301	3X
BPS1-TT-MW303I2-20110301	2X
BPS1-TT-MW304D-20110302	2X
BPS1-TT-MW304I2-20110303	2X
S1-SB3005-DR1	10X
S1-SB3005-DR2	100X
S1-SB3005-DR3	3000X
S1-SB3005-DR4	4X

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC method blank contamination resulted in qualification of sample acetone results. Non-detected acetone results were rejected due to RRF quality control limit non-compliances and a positive acetone result was qualified estimated for the same non-compliance. Positive Aroclor-1242 results for samples were qualified due to analytical column RPD quality control limit non-compliances.

Other Factors Affecting Data Quality: Positive results below the LOQ and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit. Aroclor 1242 results were qualified as estimated in all water samples because exact identification is tentative due to similarities with Aroclor 1248 and from "weathering effects".

The data for these analyses were reviewed with reference to the USEPA Region II Standard Operating Procedures for Validation - SOP HW-24 Revision #2 Volatile Organic Compounds by SW-846 Method 8260B (August 2008) and SOP HW-45 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography SW-846 Method 8082A (October 2006), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

TetraTech NUS
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Chemist/Data Validator

TetraTech NUS
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Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20110302			BPS1-DUP02-20110302			BPS1-FB01-20110303			BPS1-FW-MW01-20110302		
SDG: 50063-8	LAB_ID	1103045-13			1103045-11			1103073-01			1103045-07		
FRACTION: OV	SAMP_DATE	3/2/2011			3/2/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW301D-20110302			BPS1-TT-MW304D-20110302								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.37	J	P	0.5	U		0.5	U		23		
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		1.4		
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		4.4		
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.59	J	P
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		110		
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.25	J	P	0.5	U		0.5	U				
TOLUENE		0.35	U	B	0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		1		
TRICHLOROETHENE		1.4			0.5	U		0.5	U		41		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW01-20110302RE			BPS1-FW-MW02-20110302			BPS1-FW-MW03-20110303			BPS1-HN-MW29I-20110302		
SDG: 50063-8	LAB_ID	1103045-07RE1			1103045-05			1103073-04			1103045-09		
FRACTION: OV	SAMP_DATE	3/2/2011			3/2/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.98	J	P	0.39	J	P	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE					0.31	J	P	0.5	U		0.5	U	
1,1-DICHLOROETHANE					0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE					0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE					0.5	U		0.5	U		0.5	U	
2-BUTANONE					0.5	U		0.5	U		0.5	U	
ACETONE					1	UR	C	1	UR	C	1.4	U	B
BENZENE					0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE					0.28	J	P	0.45	J	P	0.5	U	
DICHLORODIFLUOROMETHANE					0.5	U		0.5	U		0.5	U	
ETHYLBENZENE					0.25	U		0.25	U		0.25	U	
M+P-XYLENES					0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE					0.5	U		0.5	U		0.5	U	
O-XYLENE					0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		550			41			66			0.58	J	P
TOLUENE					0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE					0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE					3.9			3.8			0.4	J	P
TRICHLOROFLUOROMETHANE					0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE					0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-RB01-20110302			BPS1-TB01-20110228			BPS1-TB02-20110301			BPS1-TB03-20110303		
SDG: 50063-8	LAB_ID	1103045-03			1103029-01			1103045-02			1103073-02		
FRACTION: OV	SAMP_DATE	3/2/2011			2/28/2011			3/1/2011			3/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		2.2	J	P	0.5	U		0.5	U		0.5	U	
ACETONE		8.9	J	CP	1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.37	J	P	0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.2	J	P	0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW301D-20110302			BPS1-TT-MW301I-20110302			BPS1-TT-MW301S-20110302			BPS1-TT-MW302D-20110301		
SDG: 50063-8	LAB_ID	1103045-06			1103045-08			1103045-04			1103029-02		
FRACTION: OV	SAMP_DATE	3/2/2011			3/2/2011			3/2/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.34	J	P	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	6.2	U	B	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.24	J	P	0.5	U		0.5	U		0.22	J	P
TOLUENE		0.36	U	B	0.1	U		0.1	U		0.17	U	B
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		1.4			0.5	U		0.5	U		1.4		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302I1-20110301			BPS1-TT-MW302I2-20110301			BPS1-TT-MW302S-20110301			BPS1-TT-MW303D-20110301		
SDG: 50063-8	LAB_ID	1103029-06			1103029-04			1103029-08			1103029-03		
FRACTION: OV	SAMP_DATE	3/1/2011			3/1/2011			3/1/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.19	J	P	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.19	J	P	0.5	U		0.5	U		0.5	U	
TOLUENE		0.1	U		0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.76	J	P	1.1			0.5	U		0.4	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I1-20110301			BPS1-TT-MW303I2-20110301			BPS1-TT-MW303S-20110301			BPS1-TT-MW304D-20110302		
SDG: 50063-8	LAB_ID	1103029-07			1103029-05			1103029-09			1103045-10		
FRACTION: OV	SAMP_DATE	3/1/2011			3/1/2011			3/1/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		2.4			0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		2.7			0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	U		1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		3.4			0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		120			1.5			0.97	J	P	0.5	U	
TOLUENE		0.1	U		0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		25			1.9			0.76	J	P	0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304I1-20110302			BPS1-TT-MW304I2-20110303			BPS1-TT-MW304S-20110303		
SDG: 50063-8	LAB_ID	1103045-12			1103073-05			1103073-06		
FRACTION: OV	SAMP_DATE	3/2/2011			3/3/2011			3/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		6.1			0.31	J	P	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		3.1			0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.35	J	P	0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		35			3.1			0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		54			4.8			0.5	U	
TOLUENE		0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.26	J	P	0.5	U		0.5	U	
TRICHLOROETHENE		11			1.4			0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20110302			BPS1-DUP02-20110302			BPS1-FB01-20110303			BPS1-FW-MW01-20110302		
SDG: 50063-8	LAB_ID	1103045-13			1103045-11			1103073-01			1103045-07		
FRACTION: PCB	SAMP_DATE	3/2/2011			3/2/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW301D-20110302			BPS1-TT-MW304D-20110302								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1221		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1232		0.043	U		0.043	U		0.04	U		0.04	U	
AROCLOR-1242		0.87	J	Q	2.9	J	QU	0.08	U		1	J	Q
AROCLOR-1248		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1254		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1260		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1262		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1268		0.085	U		0.085	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW02-20110302			BPS1-FW-MW03-20110303			BPS1-HN-MW29I-20110302			BPS1-RB01-20110302		
SDG: 50063-8	LAB_ID	1103045-05			1103073-04			1103045-09			1103045-03		
FRACTION: PCB	SAMP_DATE	3/2/2011			3/3/2011			3/2/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1232		0.04	U		0.046	U		0.04	U		0.04	U	
AROCLOR-1242		0.49	J	Q	2.1	J	Q	1.2	J	Q	0.08	U	
AROCLOR-1248		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1254		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.092	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SW01-20110228			BPS1-SW01-20110301			BPS1-SW01-20110303			BPS1-TT-MW301D-20110302		
SDG: 50063-8	LAB_ID	1103029-15			1103045-01			1103073-03			1103045-06		
FRACTION: PCB	SAMP_DATE	2/28/2011			3/1/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1221		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1232		0.04	U		0.047	U		0.045	U		0.043	U	
AROCLOR-1242		0.08	U		0.11	J	PQ	0.068	J	PQ	0.82	J	Q
AROCLOR-1248		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1254		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1260		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1262		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1268		0.08	U		0.093	U		0.091	U		0.085	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW301I-20110302			BPS1-TT-MW301S-20110302			BPS1-TT-MW302D-20110301			BPS1-TT-MW302I1-20110301		
SDG: 50063-8	LAB_ID	1103045-08			1103045-04			1103029-02			1103029-06		
FRACTION: PCB	SAMP_DATE	3/2/2011			3/2/2011			3/1/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.044	U		0.04	U		0.04	U		0.04	U	
AROCLOR-1242		0.73	J	Q	14	J	Q	1.3	J	Q	1.9	J	Q
AROCLOR-1248		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1254		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.088	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302I2-20110301			BPS1-TT-MW302S-20110301			BPS1-TT-MW303D-20110301			BPS1-TT-MW303I1-20110301		
SDG: 50063-8	LAB_ID	1103029-04			1103029-08			1103029-03			1103029-07		
FRACTION: PCB	SAMP_DATE	3/1/2011			3/1/2011			3/1/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.04	U		0.04	U		0.04	U		0.04	U	
AROCLOR-1242		1.8	J	Q	0.26	J	QU	0.66	J	Q	2.8	J	Q
AROCLOR-1248		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1254		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I2-20110301			BPS1-TT-MW303S-20110301			BPS1-TT-MW304D-20110302			BPS1-TT-MW304I1-20110302		
SDG: 50063-8	LAB_ID	1103029-05			1103029-09			1103045-10			1103045-12		
FRACTION: PCB	SAMP_DATE	3/1/2011			3/1/2011			3/2/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1232		0.04	U		0.04	U		0.044	U		0.04	U	
AROCLOR-1242		2.3	J	Q	0.13	J	PQU	2.7	J	Q	0.89	J	QU
AROCLOR-1248		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1254		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.088	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304I2-20110303			BPS1-TT-MW304S-20110303		
SDG: 50063-8	LAB_ID	1103073-05			1103073-06		
FRACTION: PCB	SAMP_DATE	3/3/2011			3/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.09	U		0.08	U	
AROCLOR-1221		0.09	U		0.08	U	
AROCLOR-1232		0.045	U		0.04	U	
AROCLOR-1242		2.6	J	QU	0.08	U	
AROCLOR-1248		0.09	U		0.08	U	
AROCLOR-1254		0.09	U		0.08	U	
AROCLOR-1260		0.09	U		0.08	U	
AROCLOR-1262		0.09	U		0.08	U	
AROCLOR-1268		0.09	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	S1-SB3005-DR1			S1-SB3005-DR2			S1-SB3009-DR3			S1-SB3009-DR4		
SDG: 50063-8	LAB_ID	1103029-14			1103029-12			1103029-11			1103029-13		
FRACTION: PCB	SAMP_DATE	2/28/2011			2/28/2011			2/28/2011			2/28/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	73.0			82.0			79.0			79.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1221		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1232		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1242		2.2	J	P	25	J	P	580	J	P	0.017	U	
AROCLOR-1248		0.0092	U		0.16	U		1.7	U		0.85	J	P
AROCLOR-1254		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1260		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1262		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1268		0.0092	U		0.16	U		1.7	U		0.0085	U	

PROJ_NO: 02230	NSAMPLE	S1-SB3012-DR5		
SDG: 50063-8	LAB_ID	1103029-10		
FRACTION: PCB	SAMP_DATE	2/28/2011		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	95.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.014	U	
AROCLOR-1221		0.014	U	
AROCLOR-1232		0.014	U	
AROCLOR-1242		0.014	U	
AROCLOR-1248		0.15	J	P
AROCLOR-1254		0.014	U	
AROCLOR-1260		0.014	U	
AROCLOR-1262		0.014	U	
AROCLOR-1268		0.007	U	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **April 27, 2011**

FROM: **MEGAN CARSON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION- METAL AND HEXAVALENT CHROMIUM**
NWIRP BETHPAGE
SDG 50063-8

SAMPLES: 9/water/

BPS1-DUP02-20110302	BPS1-HN-MW29I-20110302
BPS1-TT-MW301I-20110302	BPS1-TT-MW302S-20110301
BPS1-TT-MW303S-20110301	BPS1-TT-MW304D-20110302
BPS1-TT-MW304I1-20110302	BPS1-TT-MW304I2-20110303
BPS1-TT-MW304S-20110303	

Overview

The sample set for NWIRP Bethpage, SDG 50063-8, consists of nine (9) aqueous samples. This SDG contains one field duplicate pair: BPS1-DUP02-20110302 and BPS1-TT-MW304D-20110302.

All samples were also analyzed for target analyte metals and hexavalent chromium. The samples were collected by Tetra Tech NUS on March 1st, 2nd, and 3rd, 2011 and analyzed by TriMatrix Laboratories. Metals analyses were conducted using SW-846 method 6010C, 6020A, and 7470A. Hexavalent chromium analyses were conducted by EPA method 7196-A.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibration Verification Results
* • Laboratory Method / Preparation Blank Analyses
* • ICP Interference Results
• Matrix Spike / Matrix Spike Duplicate Recoveries
• Field Duplicate Precision
* • Laboratory Duplicate Results
* • Laboratory Control Standard Results
* • ICP Serial Dilution Results
* • Detection Limits
* • Analyte Quantitation

Metals:

The matrix spike and matrix spike duplicate had a percent recovery > 120% for aluminum. All samples in the SDG were affected. Positive results were qualified as estimated (J).

Field duplicate pair BPS1-DUP02-20110302 and BPS1-TT-MW304D-20110302 had a relative percent difference > 30% for aluminum. All samples in the SDG were affected. Positive results were qualified as estimated (J).

Positive results greater than the detection limit (DL) but less than the limit of quantitation (LOQ) were qualified as estimated (J).

Notes

The following samples analyzed at dilutions:

Sample IDs	Dilution factors	Anaytes
BPS1-DUP02-20110302	5X	Aluminum
BPS1-TT-MW304D-20110302	10X	Aluminum
BPS1-TT-MW304I1-20110302	50X	Aluminum
BPS1-TT-MW304I1-20110302	5X	Hexavalent Chromium
BPS1-TT-MW304I2-20110303	2X	Chromium
BPS1-TT-MW304I2-20110303	5X	Vanadium
BPS1-TT-MW304I2-20110303	10X	Hexavalent Chromium

The hexavalent chromium result of 58 ug/L was greater than the total chromium result of 55 ug/L for sample BPS1-TT-MW304I1-20110302. No validation action was taken as the degree of error between instrumentation accounts for the difference in values.

Calcium, iron, magnesium, potassium, and sodium were analyzed by method 6010C. All other metals (except mercury) were analyzed by method 6020.

The CRDL standard analyzed for hexavalent chromium was analyzed on 3/4/11 had a percent recovery greater than the upper control limit. No action was taken on the affected samples because one result was result was greater than the 2X the reporting limit and the other sample result was non-detected.

Executive Summary

Laboratory Performance: Preparation blank contamination resulted in the qualification of barium results.

Other Factors Affecting Data Quality: Field duplicate non-compliance for aluminum resulted in the qualification of sample results.

The data for these analyses were reviewed with reference to the "Validation of metals for the Contract Laboratory Program based on SOW ILMO5.3 (SOP Revision 13)", September 2006 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories", April 2009.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C – Region II Worksheets
4. Appendix D - Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-DUP02-20110302			BPS1-HN-MW29I-20110302			BPS1-TT-MW301I-20110302			BPS1-TT-MW302S-20110301		
SDG: 50063-8	LAB_ID	1103045-11			1103045-09			1103045-08			1103029-08		
FRACTION: M	SAMP_DATE	3/2/2011			3/2/2011			3/2/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW304D-20110302											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		400	J	DG	83	J	DG	51	J	DG	5.7	J	DGP
ANTIMONY		0.5	U		0.5	U		0.5	U		0.5	U	
ARSENIC		0.3	J	P	0.88	J	P	0.5	U		0.5	U	
BARIUM		15			43			10			13		
BERYLLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
CADMIUM		0.066	J	P	0.071	J	P	0.27			0.1	U	
CALCIUM		3600			25000			3700			4800		
CHROMIUM		9.5			2			7.7			1.3		
COBALT		0.42	J	P	0.36	J	P	0.29	J	P	0.29	J	P
COPPER		2			4.4			0.63	J	P	0.62	J	P
IRON		380			38			59			17	J	P
LEAD		0.64	J	P	0.34	J	P	0.16	J	P	0.5	U	
MAGNESIUM		900			320	J	P	840			770		
MANGANESE		5.6			1.1	J	P	3.5			12		
MERCURY		0.1	U		0.1	U		0.1	U		0.1	U	
NICKEL		5.8			0.86	J	P	3.2			1.3		
POTASSIUM		1100			1100			700			720		
SELENIUM		1	U		1	U		1	U		1	U	
SILVER		0.1	U		0.05	J	P	0.1	U		0.052	J	P
SODIUM		11000			11000			2500			2100		
THALLIUM		0.1	U		0.1	U		0.1	U		0.03	J	P
VANADIUM		0.9	J	P	4.9			0.091	J	P	0.2	U	
ZINC		6	J	P	10			8.5	J	P	4.5	J	P

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303S-20110301			BPS1-TT-MW304D-20110302			BPS1-TT-MW304I1-20110302			BPS1-TT-MW304I2-20110303		
SDG: 50063-8	LAB_ID	1103029-09			1103045-10			1103045-12			1103073-05		
FRACTION: M	SAMP_DATE	3/1/2011			3/2/2011			3/2/2011			3/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		45	J	DG	570	J	DG	2800	J	DG	25	J	DG
ANTIMONY		0.5	U		0.5	U		0.5	U		0.5	U	
ARSENIC		0.5	U		0.33	J	P	5.2			0.5	U	
BARIUM		18			15			10			13		
BERYLLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
CADMIUM		0.11	J	P	0.053	J	P	0.1	U		0.1	U	
CALCIUM		9300			3400			4800			3000		
CHROMIUM		5.3			8.6			55			180		
COBALT		0.18	J	P	0.41	J	P	1.5			1.4		
COPPER		0.64	J	P	1.6			1.3			0.87	J	P
IRON		190			350			480			40		
LEAD		0.5	U		0.74	J	P	0.8	J	P	0.5	U	
MAGNESIUM		1300			870			1500			890		
MANGANESE		2.9			5.5			7.9			2.7		
MERCURY		0.1	U		0.1	U		0.1	U		0.1	U	
NICKEL		3.8			5.4			2.9			3.3		
POTASSIUM		1900			1100			1800			1200		
SELENIUM		1	U		1	U		1	U		1	U	
SILVER		0.1	U		0.1	U		0.17	J	P	0.1	U	
SODIUM		7400			10000			29000			15000		
THALLIUM		0.066	J	P	0.1	U		0.1	U		0.1	U	
VANADIUM		0.14	J	P	0.83	J	P	3			1	U	
ZINC		4	U		4.8	J	P	4	J	P	25		

PROJ_NO: 02230 SDG: 50063-8 FRACTION: M MEDIA: WATER	NSAMPLE	BPS1-TT-MW304S-20110303
	LAB_ID	1103073-06
	SAMP_DATE	3/3/2011
	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
ALUMINUM	17	J	DG
ANTIMONY	0.5	U	
ARSENIC	0.5	U	
BARIUM	2.2		
BERYLLIUM	0.4	U	
CADMIUM	0.043	J	P
CALCIUM	2100		
CHROMIUM	1.9		
COBALT	0.85	J	P
COPPER	0.65	J	P
IRON	13	J	P
LEAD	0.5	U	
MAGNESIUM	280	J	P
MANGANESE	6.3		
MERCURY	0.1	U	
NICKEL	1.2		
POTASSIUM	290		
SELENIUM	1	U	
SILVER	0.087	J	P
SODIUM	5100		
THALLIUM	0.1	U	
VANADIUM	0.11	J	P
ZINC	7.1	J	P

PROJ_NO: 02230 SDG: 50063-8 FRACTION: MISC MEDIA: WATER	NSAMPLE	BPS1-DUP02-20110302			BPS1-HN-MW29I-20110302			BPS1-TT-MW301I-20110302			BPS1-TT-MW302S-20110301		
	LAB_ID	1103045-11			1103045-09			1103045-08			1103029-08		
	SAMP_DATE	3/2/2011			3/2/2011			3/2/2011			3/1/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW304D-20110302											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		1	U		1.1			4.5			1	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303S-20110301			BPS1-TT-MW304D-20110302			BPS1-TT-MW304I1-20110302			BPS1-TT-MW304I2-20110303		
SDG: 50063-8	LAB_ID	1103029-09			1103045-10			1103045-12			1103073-05		
FRACTION: MISC	SAMP_DATE	3/1/2011			3/2/2011			3/2/2011			3/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		1	U		1	U		58			166		

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304S-20110303		
SDG: 50063-8	LAB_ID	1103073-06		
FRACTION: MISC	SAMP_DATE	3/3/2011		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		1	U	

APPENDIX F

WORK PLAN (SAP) ADDENDUM

SAMPLING AND ANALYSIS PLAN ADDENDUM
ADDITIONAL GROUNDWATER INVESTIGATION
SITE 1 – FORMER DRUM MARSHALLING AREA
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP) BETHPAGE
BETHPAGE, NEW YORK

INTRODUCTION

This Work Plan Addendum has been prepared for the Mid-Atlantic Division of the Naval Facilities Engineering Command (NAVFAC) under Contract Task Order (CTO) WE44 issued by the Mid-Atlantic Division of NAVFAC under the Comprehensive Long-Term Environmental Action Navy (CLEAN) III contract number N62470-08-D-1001. This document is an addendum to the May 2010 Sampling and Analysis Plan (SAP) PCB Investigation at Site 1 – Former Drum Marshalling Area (herein referenced as the SAP). This SAP addendum addresses the installation of additional monitoring wells to further delineate the extent of PCB-contaminated groundwater at Site 1.

SCOPE AND OBJECTIVE

Fifteen monitoring wells will be installed during this additional investigation. Groundwater samples will be collected from the new and existing monitoring wells and analyzed for volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), total chromium, and hexavalent chromium. Soil borings will be advanced at each of the proposed monitoring well clusters and gamma logging will be used to interpret lithology and determine actual screen intervals at these locations. The objective is to further delineate the extent of PCB and hexavalent chromium contamination in groundwater and investigate potential upgradient source areas (sludge beds and recharge basins). Total chromium and hexavalent chromium have been added to the groundwater sampling to further investigate the detections observed during groundwater sampling in March 2011. Because a good correlation did not occur between groundwater grab sampling and permanent monitoring wells during the previous sampling, this activity will not be conducted. Groundwater investigative activities will be conducted in accordance with the procedures outlined in the Final SAP (May 2010). Results from these additional investigative activities will be evaluated and presented in a data summary report.

SOIL BORINGS

Five soil borings will be advanced via hollow stem auger (HSA) or mud rotary drilling methods at each of the monitoring well clusters. Each soil boring will be advanced to a depth of

approximately 250 to 300 feet bgs to define the deeper clay unit observed during previous drilling at Site 1. Lithology will be obtained at each soil boring via gamma logging. The gamma logs will be interpreted and used to determine actual screened intervals for the monitoring well installation. Split spoon samples will be collected as needed to confirm lithology encountered at these soil borings. The soil borings may be used for the deeper well installations at each of the monitoring well clusters.

MONITORING WELL INSTALLATION

Fifteen monitoring wells will be installed via HSA or mud rotary drilling methods (Figure 1) during this additional groundwater investigation. Two monitoring well clusters will be installed upgradient of Site 1. One of these clusters will be installed north of the former sludge drying beds and one cluster will be installed south or downgradient of the former sludge drying beds. The well clusters will be used to determine whether the former sludge drying beds or recharge basin are the source of the PCB-contaminated groundwater detected in wells upgradient of Site 1. Three monitoring well clusters will be installed downgradient of the previously installed downgradient well clusters along the facility's southern fence line. Base on lithology, each monitoring well cluster will consist of three or four monitoring wells and will be installed based on the lithology interpreted from the gamma logging and the inferred geology observed in previous soil borings at Site 1. The deeper wells installed at each well cluster location will be screened below the observed deeper clay unit at an estimated depth of 270-280 feet bgs. Table 1 provides a summary of estimated screened intervals for the monitoring well installation. Each monitoring well will be developed prior to groundwater sampling.

Soil cuttings and/or fluids generated from the soil boring and monitoring well installations will be field screened for evidence of contamination (visual staining or elevated photoionization detector [PID] readings >10 parts per million [ppm]). If contamination is suspected, those soils will be segregated and characterized for disposal. All soil cuttings or drilling mud will be containerized in 55-gallon drums or roll off containers, sampled, and be managed as Investigation Derived Waste (IDW).

GROUNDWATER SAMPLING

Groundwater samples will be collected from each new and existing monitoring well and sampled for VOCs, PCBs, total chromium, and hexavalent chromium as presented in Table 1. A submersible pump (e.g. Grundfos) will be utilized for groundwater sampling and low flow procedures will be followed as outlined in the Final SAP. Wellhead parameters including pH,

temperature, specific conductivity, oxygen reduction potential, turbidity, and dissolved oxygen will be collected during sampling and allowed to stabilize prior to sample collection.

All decon and purge water obtained during well installation, development, and sampling will be containerized in a poly tank or Frac tank, sampled, and be managed as Investigation Derived Waste (IDW).

SURFACE WATER SAMPLING

Surface water samples will be collected from the outfall into the southwestern and northeastern recharge basins during a storm event and sampled for VOCs, PCBs, total chromium, and hexavalent chromium as presented in Table 1. These recharge basins accept storm water runoff from Plant 3 and other areas of the facility and could be a potential source of shallow groundwater contamination observed in the existing upgradient well at Site 1.

TABLE 1
SAP ADDENDUM MONITORING WELL INSTALATION AND SAMPLING
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Activity	Sample Point ID	Estimated Total Depth (feet bgs)	Sample Analysis	Activity Details
Surface Water Sampling	BPS1-SW3001	NA	TCL VOCs, PCBs, Total Chromium, Hexavalent Chromium	Samples to be collected from outfall into southwest and northeast recharge basins
	BPS1-SW3002	NA		
Monitoring Well Installation	BPS1-MW305	50 - 60	TCL VOCs, PCBs, Total Chromium, Hexavalent Chromium	Groundwater table well (Screened similar to BPS1-TT-MW302S)
		140 - 150		Screened above semi-confining unit (Screened similar to BPS1-TT-MW302I2)
		270 - 280		Screened below deeper clay unit
	BPS1-MW306	50 - 60	TCL VOCs, PCBs, Total Chromium, Hexavalent Chromium	Groundwater table well (Screened similar to BPS1-TT-MW303S)
		140 - 150		Screened above semi-confining unit (Screened similar to BPS1-TT-MW303I2)
		270 - 280		Screened below deeper clay unit
	BPS1-MW307	50 - 60	TCL VOCs, PCBs, Total Chromium, Hexavalent Chromium	Groundwater table well (Screened similar to BPS1-TT-MW304S)
		140 - 150		Screened above semi-confining unit (Screened similar to BPS1-TT-MW304I2)
		270 - 280		Screened below deeper clay unit
	BPS1-MW308	50 - 60	TCL VOCs, PCBs, Total Chromium, Hexavalent Chromium	Groundwater table well
		130 - 140		Screened interval based on gamma logging
		270 - 280		Screened interval based on gamma logging
	BPS1-MW309	50 - 60	TCL VOCs, PCBs, Total Chromium, Hexavalent Chromium	Groundwater table well
		130 - 140		Screened interval based on gamma logging
		270 - 280		Screened interval based on gamma logging

Notes:

SW - Surface Water
MW - Monitoring Well
NA - Not Applicable
TCL VOCs - Target Compound List Volatile Organic Compounds
PCBs - Polychlorinated Biphenyls
bgs - below ground surface

Quality Control/Quality Assurance samples will consist of the following:
- 10% Duplicate
- 5% MS/MSD
- Field Blank
- Trip Blank per cooler containing VOC samples
- Rinsate Blank

P:\GIS files\Bethpage\MAP DOCS\MXD\Bethpage Site1 pcb mw proposed locs 052411.mxd MMC 07192011

N

BPS1-TT-MW309

SLUDGE BEDS

BPS1-SW3002

BPS1-TT-MW308

BPS1-SW3001

BPS1-TT-MW301D

BPS1-TT-MW301I

BPS1-TT-MW301S

Dry-Well-20-08

Plant No. 3

Site 1

Dry-Well-34-07

BPS1-FW-MW03

BPS1-FW-MW02

BPS1-FW-MW01

BPS1-HN-MW29I

BPS1-HN-MW29D

BPS1-TT-MW302D

BPS1-TT-MW302I2

BPS1-TT-MW302I1

BPS1-TT-MW302S

BPS1-TT-MW303D

BPS1-TT-MW303I2

BPS1-TT-MW303I1

BPS1-TT-MW303S

BPS1-TT-MW304S

BPS1-TT-MW304D

BPS1-TT-MW304I2

BPS1-TT-MW304I1

Plant 17 South

BPS1-TT-MW-305 S,I,D

BPS1-TT-MW306 S,I,D

BPS1-TTMW307 S,I,D

Legend

- Existing Monitoring Well
- Proposed Monitoring Well
- Proposed Surface Water Sample

0 100 200 400 Feet

TETRA TECH NUS, INC

Proposed Soil Boring/Temporary Wells
Site 1-Former Drum Marshalling Area
PCB Investigation
NWIRP Bethpage
Bethpage,New York

FILE	112G01041	SCALE	AS NOTED
FIGURE NO.	FIGURE 1	REV	DATE 7/19/11