TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA

SUPPLEMENTAL INVESTIGATION REPORT



DECEMBER 2005

Prepared For:

Town of Oyster Bay Department of Public Works



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1.0 INTRODUCTION

This Supplemental Investigation Report summarizes results of additional field investigation activities conducted at the Bethpage Community Park in Bethpage, New York (site) as part of the New York State Department of Environmental Conservation (NYSDEC) approved Interim Remedial Measure (IRM) investigation for a designated construction area (Construction Area). The supplemental investigation was performed in accordance with the NYSDEC approved IRM Work Plan, prepared by Holzmacher, McLendon & Murrell, P.C. (H2M) dated May 2005, as well as the terms of an Order on Consent between the Town of Oyster Bay and the NYSDEC.

The purpose of the supplemental investigation was to characterize the nature and extent of contamination in select areas not addressed during the initial IRM investigation. The investigated areas included the current ice skating rink, a concourse area between the ice rink and the bathhouse/pool, and a perimeter boundary area outside and around the playground to the south of the Construction Area. Part of the concourse area and the area around the playground are not within the established Construction Area. These areas were investigated and including in the IRM, however, because planned site redevelopment may necessitate excavation in these areas to facilitate installation of drainage and/or utilities. Results of this environmental investigation supplement but do not alter the proposed remedial strategy identified in the previously prepared Investigation Report & Remedial Action Plan, dated November 2005.

The initial remedial investigation was completed in support of an Interim Remedial Measure (IRM) at the Bethpage Community Park. The site is currently owned by the Town of Oyster Bay, but was formerly owned and operated by Grumman Aircraft Engineering Corporation, a predecessor to Northrop Grumman Systems Corporation (Northrop Grumman). Prior site investigation reports, prepared on behalf of Northrop Grumman, have indicated that the site had



been utilized by Northrop Grumman for waste disposal activities including industrial wastewater treatment sludge disposal, spent paint booth rag disposal, possible used oil disposal, and fire training activity that included ignition of waste oil and jet fuel. Previous site investigations documented significant impacts to site soils from these activities including the presence of elevated concentrations of metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs). In addition, prior investigation reports documented volatile organic compound impacts to groundwater at the site.

The Bethpage Community Park totals approximately 18-acres. In an effort to expedite remediation of an approximately 7-acre portion of the Park for redevelopment, designated as the Construction Area, the Town of Oyster Bay entered into an Order on Consent with the NYSDEC. It is understood that the NYSDEC has negotiated an Order on Consent with Northrop Grumman relating to further investigation and remediation of the subject property and off-site impacts.

2.0 SITE HISTORY AND DESCRIPTION

The Bethpage Community Park is located in Bethpage, New York, on the west side of the intersection of Stewart Avenue and Cherry Avenue. The site is located within the Town of Oyster Bay in Nassau County. A site location map is presented in Figure 1. The park includes a pool, skating rink, baseball field, tennis courts, children's play areas and parking. The entire site is approximately 18 acres in size and is currently owned by the Town of Oyster Bay.

Prior to being donated to the Town of Oyster Bay, the subject site was owned by Grumman Aircraft Engineering Corporation, a predecessor to Northrop Grumman Systems Corporation. According to reports prepared on behalf of Northrop Grumman Systems Corporation¹, Northrop Grumman utilized the property for waste disposal purposes including industrial wastewater treatment sludge, spent paint booth rag disposal, and possible used oil disposal. In addition, it

¹ Dvirka and Bartilucci, December 2003, Town of Oyster Bay Bethpage Community Park Investigation Sampling Program – Field Report.

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has been reported that Northrop Grumman utilized the site for fire training, which included ignition of waste oil and jet fuel.

Ownership of the site was transferred to the Town of Oyster Bay in 1962, after which, the Town constructed the present-day Park. The community actively utilized the site until 2002, when the Park was partially closed due to the identification of PCB and metals impacts above state guideline concentrations in surface soils. Portions of the site remain closed to this day, pending remediation.

A number of environmental investigations have been conducted relative to the Park. Recent site investigations have been conducted by Dvirka and Bartilucci Consulting Engineers, on behalf of Northrop Grumman. Two significant soil sampling programs were implemented by Northrop Grumman in recent years, a March/May 2002 soil sampling event and a May/June 2003 sampling event. Northrop Grumman also conducted groundwater sampling in June, September and November 2003. These events were documented in two reports dated June 2002 and December 2003.

The Town of Oyster Bay intends to improve the Park grounds through construction of new facilities including an indoor ice-skating rink. The anticipated redevelopment activities will impact approximately 7 acres of the site. The Construction Area, as it is referred to, extends from the north border of the property in a southerly direction approximately central to the site. Although redevelopment activities have not been finalized, the construction of a new building measuring approximately 30,000-50,000 square feet is anticipated as well as upgrading of surrounding parking areas. The proposed redevelopment will require site excavation.

3.0 DESCRIPTION OF WORK COMPLETED

The purpose of the supplemental IRM field investigation was to characterize the nature and extent of contamination in both soil and shallow groundwater in areas not addressed during the initial field investigation and augment information obtained during the initial IRM field investigation.



The supplemental investigation was performed in conformance with the methodology of the initial IRM field investigation. Investigation activities were based on the NYSDEC approved IRM Work Plan dated May 2005. The methodologies and procedures utilized during the supplemental investigation were identified in a NYSDEC approved Quality Assurance Project Plan (QAPP), which was included as part of the IRM Work Plan. Potential contaminants for investigation included PCBs, VOCs, SVOCs, and metals (including hexavalent chromium and cyanide).

3.1 Geophysical Survey

A geophysical survey was conducted by NAEVA Geophysics Inc. (NAEVA) under the direction of H2M on September 20, 2005 to delineate detectable buried utilities and significant subsurface anomalies in areas planned for subsurface investigation. The geophysical survey was limited to areas not previously surveyed by NAEVA during the initial IRM field investigation.

3.2 Soil Sampling Program

The soil investigation component of the supplemental field investigation included the advancement of 19 soil borings. Most soil borings were positioned on a grid format with approximately 50-foot on-center node spacing. The grid correlated with the initial field investigation but was expanded to include the additional soil boring locations. As during the initial IRM field investigation, each grid node was identified with an alpha-numeric code representing a letter for each row transect and a number for each column transect. Numeric columns were in an approximate north-south orientation. The boring locations are shown on Figure 2.

The areas investigated during the supplemental soil sampling program included the current ice rink area, the concourse area between the ice rink and bathhouse/pool, as well as the perimeter area surrounding the playground to the south of the Construction Area. Six borings were advanced within the ice rink area, identified as R1 through R6. Of these, three were advanced to 60 feet below grade and three were advanced to 10 feet below grade. These boring locations do



not correlate with the sampling grid format. Drilling in the area of the current ice rink was planned for inclusion in the initial IRM field investigation. However, considering that the shortterm fate of the existing rink had not been determined at the time of the initial IRM field investigation, drilling was not performed due to the possibility of damaging refrigerant coils from invasive drilling. Subsequent to the initial field investigation, it was determined that drilling could be performed in a manner that was protective of the refrigerant coils. This was the primary impetus for the supplemental field investigation.

The soil investigation included three soil borings in the concourse area to the south of the existing rink and north of the bathhouse and swimming pool. These boring locations were identified as I13, I14 and J11, and were each completed to a depth of 10 feet below grade. Although these borings are not within the designated Construction Area, they were included in the IRM to characterize the soils which may require excavation to facilitate installation of drainage piping and/or utilities.

Ten soil borings were advanced to a maximum depth of 10 feet below grade at the south end of the Park in the general vicinity of the playground. This area was investigated as part of the IRM to characterize the soils which may require excavation to facilitate the installation of new drainage piping. The actual boring locations were outside the inner fence surrounding the playground. The investigated area surrounding the playground is also enclosed by fencing, and the area between the two fences is not accessible to the public. Investigation activities were not performed as part of the IRM within the playground itself, which remains open to the public. The playground area had been previously investigated by Northrop Grumman Corporation^{1,2}. Surface and near surface soils were remediated in the playground area during a remodeling of the playground in 2004.

The supplemental soil investigation was conducted under the direction of H2M during the period of September 21, 2005 through September 29, 2005, excluding weekends. In a manner similar to the initial IRM field investigation, the supplemental soil investigation included shallow borings, advanced to a maximum depth of 10 feet below grade utilizing direct-push drilling

² Dvirka and Bartilucci, March 2002, Town of Oyster Bay Bethpage Community Park Soil Sampling Program.

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methods, and deep borings, advanced to a maximum depth of 60 feet below grade utilizing hollow stem auger drilling methods. As specified in the IRM Work Plan, sampling was typically performed continuously in two-foot intervals from grade to 10 feet below grade. From 10 feet below grade to 60 feet below grade, sampling was performed in two-foot cores at 10 foot intervals, i.e. 18-20, 28-30, 38-40, etc. Drilling services were provided by Universal Testing & Inspection Services (Universal) of West Babylon, New York.

Shallow soil probes were advanced as 2-inch diameter by 4-feet long "macro-core" barrels fitted with a cutting shoe and disposable acetate liner. Soil samples from deep borings were retained using 2-foot split spoon samplers. Between sampling intervals, all non-disposable sampling equipment was decontaminated in accordance with the IRM Quality Assurance Project Plan. Non-disposable drilling equipment was decontaminated between boring locations. All collected soil samples were visually inspected, characterized and screened with a portable photoionization detector (PID) for evidence of contamination. Copies of soil boring logs are provided in Appendix A. All retained soil samples were analyzed for PCBs and RCRA metals. At least one sample from each boring location was also analyzed for an expanded list of parameters including Target Analyte List (TAL) metals (including hexavalent chromium and cyanide), Target Compound List (TCL) VOCs and TCL SVOCs. During the deep soil borings in the ice rink area, three additional samples from increasing depths were also analyzed for VOCs to serve as a vertical profile of potential contamination. Blind duplicate, matrix/matrix spike duplicates, field blank and trip blank samples were also collected and analyzed in accordance with standard QA/QC procedures. Analytical services were provided by H2M Labs following Contract Laboratory Protocols (CLP) for NYSDEC ASP Category B deliverables.

3.3 Soil Vapor Sampling

A supplemental soil vapor sampling program was implemented in the area of the current ice rink to better characterize VOCs that were identified during the initial IRM field investigation. Soil vapor samples were collected in three locations within the ice rink, i.e., R1, R3 and R6, and at three depths to serve as vertical profiles. The soil vapor sampling program also included the collection and analysis of an ambient sample for each field day that soil vapor samples were collected.



Soil vapor borings samples were collected with a post run tubing system using Summa canisters fitted with flow restrictors to provide a sampling flow of not greater than 0.2 liters per minute. The tubing systems were discarded after each use. Each collected sample was submitted to Severn Trent Laboratories, Inc. (STL Burlington) in Colchester, VT and analyzed for Target Compound List VOCs via EPA Method TO-15.

3.4 Monitoring Well Installation and Sampling

A new groundwater monitoring well was installed as part of the supplemental IRM field investigation under the direction of H2M. The monitoring well, identified as CAMW-5, was completed on September 22, 2005. The monitoring well was installed in the northeast portion of the Construction Area to serve as an additional upgradient well and permit increased precision in the generation of a potentiometric groundwater surface map in the Construction Area. The monitoring well location is shown on Figure 2.

The monitoring well installation work was conducted utilizing a hollow stem auger drill rig provided by Universal. Each well was constructed of 4" diameter Schedule 40 PVC piping with 20-feet of 0.01-inch slot screen in accordance with the Work Plan and utilizing generally accepted NYSDEC protocols for monitoring well installations. The well was finished with a locking cap and flush mounted road box. Upon completion of the monitoring well installation, the well was properly developed using a Grundfos® submersible pump in accordance with the Work Plan and generally accepted NYSDEC protocols. A copy of the well construction diagram is provided in Appendix B.

A groundwater sample was collected from monitoring well CAMW-5 on October 4, 2005 by H2M. The groundwater sampling was performed in accordance with US EPA 540/S-95/504 Low-Flow (Minimal Drawdown) Groundwater Sampling Procedure. The groundwater sample was analyzed for PCBs, metals including hexavalent chromium, VOCs, SVOCs and cyanide. In addition, a blind duplicate, matrix/matrix spike duplicate, field blank and trip blank were collected and analyzed in accordance with standard QA/QC procedures.



3.5 Community Air Monitoring

In accordance with the Work Plan, a community air monitoring program (CAMP) was implemented for the duration of the supplemental IRM field investigation during all ground intrusive activities. The CAMP was based on the New York State Department of Health Generic Community Air Monitoring Plan as referenced in the approved project Work Plan and included regular monitoring of VOCs and particulates. Equipment utilized as part of the CAMP included portable photoionization detectors (Photovac Pro 2020) for VOCs and TSI Dust Traks for particulates. The TSI Dust Traks were fitted with environmental enclosures and visual alarm indicators.

Monitoring was performed at upwind and downwind locations from each drilling or sampling area, which were typically 30-50 feet away. The upwind or background measurements were recorded prior to the initiation of intrusive activity. All measurements were logged on preprinted forms. Downwind measurements were recorded hourly. As recommended by the NYSDOH, a threshold of 5 parts per million (ppm) over background was utilized for VOC measurements. At no point during the duration of the IRM field investigation activities did the VOC monitoring detect any airborne concentration of VOCs.

Particulates were monitored continuously during the field investigation although documented hourly on the pre-printed log forms. The NYSDOH recommends an initial airborne dust threshold of 100 micrograms per cubic meter ($\mu g/m^3$) for comparison of downwind to upwind airborne dust levels. The visual alarm indicators on the particulate monitors were programmed to alarm at 100 $\mu g/m^3$ to provide an early indication of possible dust migration. At no point during the IRM field investigation did the downwind airborne dust concentration exceed the upwind level by 100 $\mu g/m^3$. For the duration of the IRM field investigation, dust measurements in both upwind and downwind locations were typically between 10 and 50 $\mu g/m^3$.

In consideration of the community air monitoring results, it is H2M's opinion that no off-site receptors were adversely impacted by elevated airborne VOC or dust contaminants related to the IRM field work activities.



4.0 NATURE AND EXTENT OF CONTAMINATION

The supplemental IRM field investigation included soil, soil vapor and groundwater sampling. The findings of the sampling program are provided within this section.

4.1 Standards, Criteria and Guidelines (SCG)

To assess the soil sampling analytical data, the laboratory results were compared to the Recommended Soil Cleanup Objectives (RSCOs), as presented in New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) #4046 entitled "Determination of Soil Cleanup Objectives and Cleanup Levels," April 1995. With regards to metals, the TAGM RSCOs identify a specific cleanup objective concentration for mercury, cadmium and chromium. All other metal contaminants are identified with "site background" or given "site background" as an option for the RSCO. In these cases, the upper range of the TAGM-identified Eastern USA Regional Background Concentration was used as the cleanup objective.

For assessment of groundwater sampling analytical data, the laboratory results were compared to the applicable NYSDEC Class GA groundwater and effluent standards as presented in 6 NYCRR Part 703; Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations, amended August 1999.

With regards to soil vapor sampling and subsurface vapors, the State of New York has not promulgated specific standards, criteria or guidance values for concentrations of compounds in subsurface vapors, as reported in the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, February 2005 Public Comment Draft. However, the NYSDOH guidance document offers decision making matrices to serve as risk management tools for evaluating soil vapor entering buildings. Although the matrices were developed for trichloroethylene (TCE) and tetrachloroethylene (PCE), these matrices were considered when evaluating the soil vapor data collected as part of this investigation. As recommended within the NYSDOH guidance document, soil vapor sampling



results were also evaluated individually, compared with background outdoor air levels and reviewed "as a whole" to identify trends and special variations in the data.

4.2 Soil Investigation Findings

The supplemental IRM soil investigation in the Bethpage Community Park Construction Area included 16 shallow soil borings advanced to a maximum of 10 feet below grade and three soil borings advanced to 60 feet below grade. All collected samples were analyzed for PCBs and RCRA metals. Additionally, at least one set of samples from each boring were analyzed for an expanded list of parameters comprising TAL metals (including cyanide and hexavalent chromium), TCL VOCs, and TCL SVOCs. Three samples from each of the three deep borings within the rink area were also analyzed for VOCs.

Analytical services were provided by H2M Labs, Inc., a New York ELAP approved and ASP certified laboratory. Analytical results were presented as a NYSDEC ASP Category B data package that documented the quality of the analytical work. As part of the soil sampling program, Quality Assurance/Quality Control (QA/QC) samples were collected including trip blanks, field blanks, blind duplicates, and matrix spike/matrix spike duplicates (MS/MSDs).

Soil sampling results from the supplemental IRM field investigation are summarized in Tables 4.2.1, 4.2.2, 4.2.3 and 4.2.4 for PCBs, metals (including cyanide and hexavalent chromium), VOCs and SVOCs, respectively. In Table 4.2.1, all sampling results with a PCB concentration greater than 1 mg/kg are identified in bold. The NYSDEC TAGM 4046 Recommended Soil Cleanup Objective (RSCO) is 1 mg/kg for surface soils and 10 mg/kg for subsurface soil samples. As with the initial IRM investigation, the RSCO of 1 mg/kg for surface soils was used as the cleanup objective for all soils to a depth of 10 feet below grade. PCBs were identified above a concentration of 1 mg/kg in six of the 19 soil borings conducted as part of the supplemental investigation, and were detected in the vicinity of the playground only. No PCBs were detected in the general vicinity of the existing ice rink. The highest PCB concentration was detected at soil boring O4 at a depth of 2-4 feet below ground at a concentration of 100 mg/kg. The vertical extent of contamination in this location could not be properly delineated due to drill rig refusal at 4 feet below grade. The O4 boring location had already been moved



two feet west due to refusal, which was encountered in the initial location at a depth of 2 feet below ground. The other PCB concentrations in the vicinity of the play ground ranged from 1.06 at Q4 (4-6) to 34.3 mg/kg at Q9 (0-2). A site plan showing all PCBs detected at concentrations above 1 mg/kg is provided as Figure 3.

Soil sampling results for metals are summarized in Table 4.2.2. Metal concentrations exceeding the NYSDEC RSCOs are identified in bold and included arsenic, cadmium, chromium (both total and hexavalent), mercury, and zinc. All metals detected at concentrations above their respective RSCOs are shown in Figure 3. The highest concentration of mercury was detected at boring location O9 (2-4) at 3.4 mg/kg. For reference, the NYSDEC RSCO for mercury is 0.1 mg/kg. Hexavalent chromium was detected in two locations at concentrations of 65 mg/kg (Q4 (8-10)) and 140 mg/kg (P9 (8-10)). The RSCO for total chromium is 50 mg/kg.

Cyanide soil sampling results are provided in Table 4.2.2 with the metals results. The NYSDEC TAGM 4046 does not identify a RSCO for cyanide considering the stability of cyanide is dependent on the chemical form. Cyanide was detected in one location (P9 (8-10)) at a concentration of 1.5 mg/kg.

Soil sampling results for VOCs are summarized in Table 4.2.3. VOCs were either nondetectable or less than the NYSDEC RSCOs in all samples collected as part of the supplemental IRM site investigation.

Semi-volatile organic compound soil sampling results are summarized in Table 4.2.4. Semivolatile organics were detected in three of the 19 boring locations at concentrations above the RSCOs. The semi-volatile contaminants that exceeded their individual RSCOs were predominantly polycyclic aromatic hydrocarbons and included benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene. However, not all of these contaminants were detected at each location. The NYSDEC TAGM 4046 recommends a comparison of individual compounds with their respective RSCOs. A cumulative total SVOC concentration maximum of 500 mg/kg is also recommended, when individual contaminant concentrations are



not known. The cumulative total of SVOC concentrations did not exceed 500 mg/kg in any boring location or sample. A summary of the SVOC impacts detected above the RSCOs is shown on the site plan provided as Figure 3.

4.3 Soil Vapor Sampling Results

The supplemental IRM field investigation included soil vapor sampling in three boring locations, i.e., R1, R3 and R6, and at three depths within each boring, i.e., 8-10 feet or 10-12 feet, 28-30 feet and 48-50 feet. The soil vapor samples were all analyzed for TCL VOCs. The sampling locations were selected based on the results of the initial IRM field investigation which identified select VOCs including dichlorodifluoromethane (Freon-12) in soil vapor samples collected in the vicinity of the existing ice rink. Furthermore, information was obtained indicating that there were two historical failures in the integrity of the refrigerant coils beneath the ice rink surface. These failures had been repaired by Town personnel, however, their locations were investigated as part of this effort (via borings R1 and R3). The soil vapor sampling results are summarized in Table 4.3.1.

As discussed in Section 4.1, the State of New York has not promulgated any standards, criteria or guidance values with regards to soil vapor concentrations. The soil vapor sampling results shown in Table 4.3.1 are compared with ambient/background outdoor air levels, which were collected on each day of soil gas sampling. As shown, soil vapor concentrations exceeded ambient volatile organic compound conditions in all locations. Detected organics were predominantly 2,2,4-trimethylpentane, carbon disulfide, dichlorodifluoromethane, methyl ethyl ketone (2-butanone), isopropyl alcohol, and toluene. It should be noted that none of the detected organics were identified in the soil samples.

No vertical profile trends are discernable in the soil vapor data provided in Table 4.3.1 for borings R1, R3 and R6. For example, in location R1, the concentration of dichlorodifluoromethane decreases with increasing depth. At R1, the concentration of dichlorodifluoromethane is 590,000 μ g/m³ at 10-12 feet below grade compared with 44,000 μ g/m³ at a depth of 48-50 feet below grade. At R3, the concentration of dichlorodifluoromethane increases from 48,000 μ g/m³ at 8-10 feet below grade to 190,000

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 $\mu g/m^3$ at 28-30 feet, then decreases to 110,000 at 48-50 feet below grade. At R6, the concentrations for dichlorodifluoromethane are 64,000 $\mu g/m^3$, 10,000 $\mu g/m^3$ and 28,000 $\mu g/m^3$ for sampling depths comparable with R3. Similar variations are noted for the other detected VOCs. Based on the soil vapor sampling results, there does not appear to be a current "source area" for the detected soil vapors considering 1) there are no current refrigerant leaks at the ice rink, 2) the soil vapor concentrations vary with depth with no apparent trend, and 3) no VOCs were detected in the soil samples.

During the initial IRM field investigation, the compound chlorodifluoromethane (freon-22) was detected at a concentration of 200 μ g/L in the groundwater at monitoring well CAMW-4, located on the south side of the existing skating rink. Chlorodifluoromethane was not detected in the soil or soil vapor samples collected beneath the ice rink during this supplemental IRM investigation. It should be noted that chlorodifluoromethane was included as an analyte for analysis during the supplemental soil investigation. As previously mentioned, the soil vapor analytical services were provided by Severn Trent (STL). The STL analyte list for analytical method TO-15 for TCL VOCs does not include chlorodifluoromethane. However, according to STL, chlorodifluoromethane would be specifically identified as a TIC (tentatively identified compound) during the analysis, if present.

4.4 Groundwater Sampling Results

The supplemental IRM field investigation at the Bethpage Community Park included the installation and sampling of one monitoring well. The well is identified as CAMW-5. Well installation and sampling details were provided in Section 3.4. The well was sampled for PCBs, TAL metals (including cyanide and hexavalent chromium), VOCs and SVOCs. A summary of the analytical results for these analyses are provided in Tables 4.4.1 through 4.4.4. For comparison purposes, the sampling results from the initial IRM field investigation for monitoring wells CAMW-1 through CAMW-4 are included in the tables.

No PCBs were detected in the groundwater sample collected from monitoring well CAMW-5, as shown in Table 4.4.1. Groundwater sampling for metals are shown in Table 4.4.2. Only sodium was detected at a concentration above the NYSDEC Class GA Groundwater Quality Standards.



Sodium was detected at a concentration of 44,300 μ g/L, which exceeds the Class GA Standard of 20,000 μ g/L. Sodium was detected at comparable concentrations in monitoring wells CAMW-1 through CAMW-4 during the initial IRM investigation. Due to its relatively benign nature, sodium impacts are not considered significant to this IRM program.

Volatile organic compound groundwater sampling results are presented in Table 4.4.3. As shown, no VOCs were identified at monitoring well CAMW-5. As summarized in Table 4.4.4, analytical results for SVOCs indicate that all compounds were present at concentrations below their respective method detection limits.

Utilizing the new monitoring well, an updated monitoring well survey was conducted to define the site specific groundwater flow direction. Results of the well survey and associated groundwater contours are depicted on Figure 4 (Supplemental IRM Investigation Potentiometric Groundwater Surface Map).

The shallow groundwater in the vicinity of the Bethpage Community Park flows in a southsoutheasterly direction. An assessment of potential impacts to the shallow groundwater underlying the Construction Area from possible on-site contaminant source areas was performed and previously reported in the IRM Investigation Report & Remedial Action Plan based on monitoring wells CAMW-1 through CAMW-4. However, due to the monitoring well locations and the groundwater flow direction, monitoring well CAMW-4 was not well positioned for comparison with upgradient well CAMW-1. Based on the groundwater contours in Figure 4, CAMW-5 may be considered an upgradient well with respect to CAMW-4.

As discussed earlier in this section, no PCBs, VOCs or SVOCs were detected at monitoring well CAMW-5. With regards to metals, only sodium was detected above NYSDEC Class GA Groundwater Standards. The concentrations of sodium at CAMW-5 and downgradient at CAMW-4 were nearly identical, i.e., 44,300 μ g/L at CAMW-5 compared with 44,200 μ g/L at CAMW-4. Sodium, however, is not typically considered a significant environmental concern.



The volatile organic compounds 1,2-dichloroethene and trans-1,3 dichloropropene were detected at low concentrations in monitoring well CAMW-4. Chlorodifluoromethane was also detected at a concentration of 200 μ g/L. These compounds were not detected in upgradient well CAMW-5 indicating a possible on-site source or historical on-site source. The soil and soil vapor investigation components of the initial and supplemental IRM investigations did not identify any existing on-site source areas for these compounds.

5.0 QA/QC SAMPLING & DATA VALIDATION

This section summarizes the quality assurance/quality control (QA/QC) procedures used during the field investigation, data validation results and data usability.

5.1 Field Investigation QA/QC

QA/QC procedures for the supplemental field investigation activities as well as all laboratory work were consistent with the procedures identified in the NYSDEC approved Work Plan for the initial IRM investigation. The purpose of establishing and following strict field and laboratory specific procedures was to ensure that the data collected was precise, accurate, representative, complete and comparable.

The field QA/QC procedures included the use of specially developed forms and logs for the collection of repetitive data such as soil and groundwater sampling, and community air monitoring. In addition, QA/QC procedures stipulated in the Work Plan such as Chain-of-Custody procedures, field measurement requirements, QA/QC sample collection, etc., were followed.

In order to meet project-specific Data Quality Objectives (DQOs), various types of QA/QC blank and duplicated samples were collected and analyzed. These QA/QC samples included trip blanks, field blanks and blind duplicate samples.



Trip Blanks

Trip blanks containing distilled and de-ionized water from the analytical laboratory were transported to the site and returned without opening. Trip blanks serve as a check for potential contamination from volatile organic compounds that may originate from sample transport, shipping and/or from site conditions. Trip blanks were collected during the supplemental field investigation at the rate of one per day. All trip blanks were analyzed for VOCs. The analytical results are summarized in Table 5.1.1. As shown, no VOCs were detected in any trip blank. Therefore, it is unlikely that any of the samples collected during the field investigation were impacted by sample transport and shipping.

Field Blanks

Field blanks, also identified as equipment blanks, were used to determine if field sampling or sampling equipment decontamination procedures resulted in cross-contamination of site samples. Field blanks were collected at a rate of one per sample delivery group (SDG, i.e., up to 20 samples) by pouring distilled and deionized water through or over the sampling equipment following cleaning. Field blank samples were analyzed for PCBs, TAL metals including hexavalent chromium and cyanide, TCL VOCs and TCL SVOCs. The field blanks were collected during soil sampling, which was performed by split-spoon sampling or direct-push drilling core barrel sampling, and during groundwater sampling.

The analytical results for field blanks were reviewed by the independent data validator and are reported in the Data Usability Summary Report. As reported in the data validation report, methylene chloride was detected in the method blank and field blanks at low concentrations similar to those detected in the project samples. Accordingly, the detection of methylene chloride was recommended to be disregarded.

Blind Duplicates

Blind duplicate samples were utilized as an additional QA/QC measure to assess the accuracy and repeatability of field procedures and laboratory analytical procedures. Duplicate samples were collected and labeled with a fictitious identifier known only to the samplers and those responsible for data interpretation. The analytical laboratory was not aware of the precise



sampling location. Field blanks were submitted to the analytical laboratory in an identical manner as all other samples, and were documented on the chains of custody. Sample collection times were not provided on the chains of custody for the blind duplicate samples.

Blind duplicate samples were analyzed for PCBs and RCRA metals. Analysis of the blind duplicate samples did not include the expanded list of metals (i.e., TAL metals), cyanide, hexavalent chromium, VOCs or SVOCs, as specified in the NYSDEC approved Work Plan. All soil samples collected during the supplemental field investigation were analyzed for PCBs and RCRA metals. The expanded list of analytical parameters was reserved to a minimum of one sample per boring location based on field screening results. Analysis of the blind duplicates for the expanded list of parameters would have reduced the effective "blind" nature of these duplicate samples.

According to the Data Usability Summary Report, all results for blind field duplicate correlation were within acceptable limits.

5.2 Data Validation

All of the CLP analytical data packages and results generated as part of this supplemental IRM investigation underwent independent data validation. A total of 6 analytical data packages or sample delivery groups (SDGs) were generated as part of the supplemental soil investigation, and one sample delivery group (SDG #46) was generated during groundwater sampling. Analytical services for soil and groundwater samples were provided by H2M Labs, Inc., a New York ELAP approved and ASP certified laboratory. Soil vapor sampling results were provided as one data package by Severn Trent Laboratories (STL Burlington).

Independent data validation was provided by Data Validation Services of North Creek, New York. Methodologies utilized were those of the 1995 NYSDEC ASP. The Data Usability Summary Report is included in Appendix C.

As per NYSDEC CLP procedures, the concentrations and data qualifiers shown on the summary analytical tables referenced in Section 4.0 have been edited to reflect minor recommendations



made during the validation process. The analytical results presented in the data summary tables report validated data, which are applicable for use in health-based risk assessments. The data validation was performed following NYSDEC Analytical Services Protocol (ASP) guidelines.

6.0 SUMMARY & CONCLUSIONS

6.1 Site Investigation Summary

The supplemental IRM site investigation, which consisted of soil, groundwater and soil vapor sampling, served to further characterize the nature and extent of contamination within the Construction Area at the Bethpage Community Park. Areas investigated during the supplemental field investigation included the current ice rink area, the concourse area to the south of the rink but north of the bath house/swimming pool, and a perimeter area surrounding the playground to the south of the Construction Area.

The data obtained during the supplemental investigation, as summarized within this section, has been used to revise the proposed Remedial Action Plan, which was previously prepared (Investigation Report & Remedial Action Plan, November 2005), so as to include additional areas that likely require excavation to facilitate site redevelopment. The results of the supplemental site investigation were presented in Section 4.0.

Contaminants including PCBs, metals and select SVOCs were identified at levels exceeding NYSDEC Recommended Soil Cleanup Objectives. No VOCs were identified above NYSDEC RSCOs in all areas investigated. PCBs were detected in some of the borings locations surrounding the playground. The predominant metals identified during the supplemental site investigation included chromium, mercury and zinc. SVOCs identified above NYSDEC guidance values were limited to polynuclear aromatic hydrocarbons (PAHs) and primarily included benzo(a)anthracene, benzo(a)pyrene and chrysene.

PCB contamination, as summarized in Table 4.2.1, was identified in some boring locations surrounding the playground in the southern portion of the Park. The highest PCB concentration



was detected at soil boring O4 at a depth of 2-4 feet below ground at a concentration of 100 mg/kg. Due to subsurface refusal at four feet below grade in this location, the vertical extent of contamination could not be properly delineated. The remaining PCB concentrations in the vicinity of the playground ranged from 1.06 at Q4 (4-6) to 34.3 mg/kg at Q9 (0-2). All PCBs detected at concentrations above 1 mg/kg were shown in Figure 3.

Sampling results for metals are summarized in Table 4.2.2. All metals detected at concentrations above their respective RSCOs are shown in Figure 3. The highest concentration of mercury was detected at boring location O9 (2-4) at 3.4 mg/kg. For reference, the NYSDEC RSCO for mercury is 0.1 mg/kg. Hexavalent chromium was detected in two locations at concentrations of 65 mg/kg (Q4 (8-10)) and 140 mg/kg (P9 (8-10)). The RSCO for total chromium is 50 mg/kg.

Cyanide soil sampling results are also provided in Table 4.2.2 with the metals results. The NYSDEC TAGM 4046 does not identify a RSCO for cyanide considering the stability of cyanide is dependent on the chemical form. Cyanide was detected in one location (P9 (8-10)) at a concentration of 1.5 mg/kg.

Semi-volatile organic compound soil sampling results are summarized in Table 4.2.4. Semivolatile organics were detected in three of the 19 boring locations at concentrations above the RSCOs. The semi-volatile contaminants that exceeded their individual RSCOs included benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene. However, not all of these contaminants were detected at each location. A summary of the SVOC impacts detected above the RSCOs is shown on the site plan provided as Figure 3.

Soil vapor sampling was performed as three vertical profile borings through the existing ice skating rink. Soil vapor data is provided in Table 4.3.1. Two of the profile borings were positioned in areas where refrigerant coils had been repaired. Detected organics were predominantly 2,2,4-trimethylpentane, carbon disulfide, dichlorodifluoromethane, methyl ethyl ketone (2-butanone), isopropyl alcohol, and toluene. Of these contaminants,



dichlorodifluoromethane was detected in all three borings. No discernable trends were noted in the concentrations of dichlorodifluoromethane and other organics with depth. It should also be noted that none of the detected organics were identified in the soil samples.

6.2 Impact of Supplemental Investigation on Proposed Remedial Strategy

The remedial action plan proposed in the Interim Remedial Measure Investigation Report & Remedial Action Plan (November 2005) was developed to be protective of human health, protective of the environment, and to facilitate redevelopment of a portion of the Bethpage Community Park by the Town of Oyster Bay. Past environmental investigations conducted at the Bethpage Community Park, on behalf of Northrop Grumman, documented contamination within the designated Construction Area. Investigative results documented in the Investigation Report & Remedial Action Plan and herein provide significantly greater detail relative to the impacts to the subject area. As previously reported, near-term plans for redevelopment at the site include the construction of a new indoor ice skating rink in the vicinity of the existing outdoor rink. Associated with the redevelopment will be reconfiguration of the site access and parking areas. In developing the remedial strategy, the near-term future use and potential future use of the subject area were considered.

As reported in the Investigation Report & Remedial Action Plan, a set of remedial strategy criteria were applied to the IRM investigation results to develop a remedial action plan. The remedial action plan provided for remediation of all contaminated surface and near surface soils to a depth of ten feet, remediation of contaminated fill areas identified from historical records, such as aerial photographs or site records and identified from soil classification information obtained during the IRM field investigation, and remediation of all source areas (impacted soils) affecting or having the potential to affect groundwater or soil vapor quality to NYSDEC recommended soil cleanup objective concentrations for subsurface soils.

Applying the results of the supplemental IRM investigation to the previously proposed remedial strategy criteria, a revised remedial excavation plan was developed and is shown as Figure 5. The revised remedial excavation plan does not alter the initial excavation plan, but only proposes the excavation of approximately 5,000 additional cubic yards of contaminated soil.

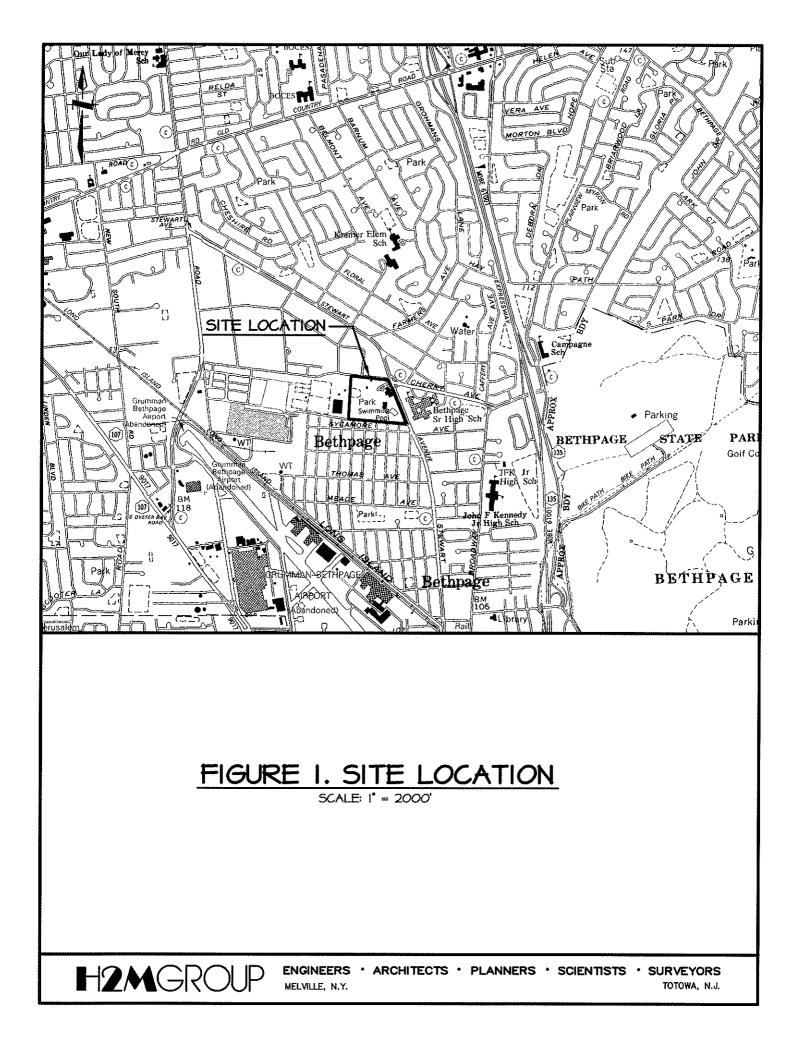


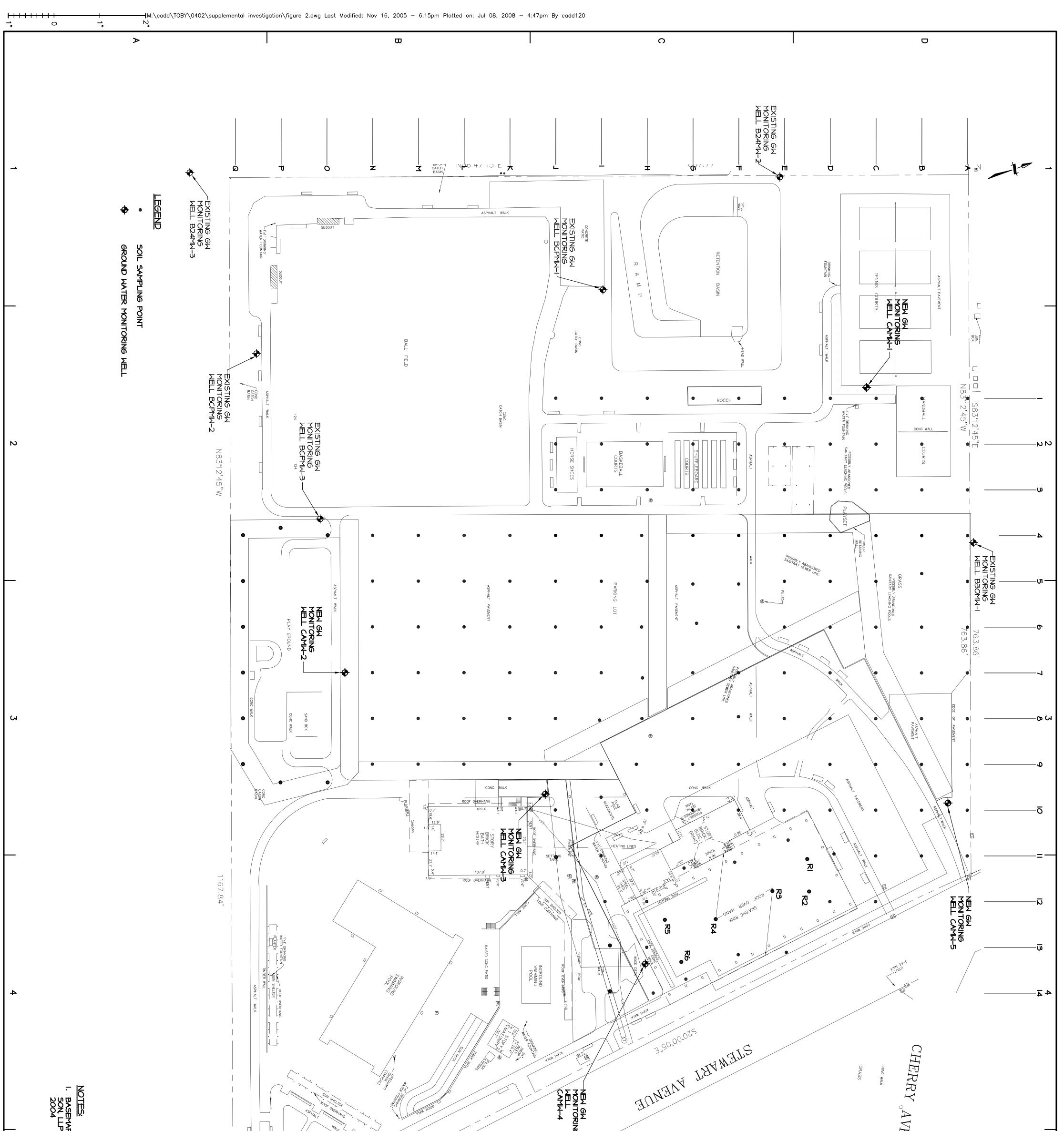
The additional excavation areas include a portion of the ice rink area, a portion of the concourse and a perimeter boundary area outside and around the playground to the south of the Construction Area. The area around the playground is not accessible to the public and outside the perimeter fence surrounding the playground. Investigation activities were not performed as part of the IRM within the playground itself, which remains open to the public. As previously reported, the playground area had been investigated by Northrop Grumman Corporation. Surface and near surface soils were remediated in the playground area during a remodeling of the playground in 2004.

All impacted soils that are excavated as part of the remediation effort will be transported off-site and disposed at a facility permitted to accept the contaminant concentrations identified during the IRM field investigations. All excavated soils will be replaced with clean fill and top soil, as necessary. All remedial excavation and backfilling will be coordinated with the site redevelopment and construction plan to minimize duplication of effort.

With regards to soil vapor, the proposed Remedial Action Plan recommended that any enclosed spaces contemplated as part of the proposed development activity include provision for soil vapor mitigation (i.e., prevention of soil vapor intrusion) as a design consideration. There are no changes to this recommendation based on the results of the supplemental IRM investigation given that no specific source for the soil vapor concentrations was identified.

Through the application of the remedial strategy criteria to the results of the supplemental IRM investigation, the recommendations of this supplemental investigation for additional remedial excavation are compliant with the conclusions of the Human Exposure Assessment presented within the November 2005 Interim Remedial Measure Investigation Report & Remedial Action Plan.





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FIGURE 2	NUMBER	EET TITLE	CONTRACT	CONSTRUCTION AREA SUPPLEMENTAL IRM SITE INVESTIGATION	TOWN OF OYSTER BAY BETHPAGE COMMUNITY PARK BETHPAGE, NEW YORK	DATE: NOVEMBER ZOU4 CAD DWG FILE: figure 2.dwg XREF DWG FILE: xr_EXCAVATION.dwg SCALE: 1"= 50' 50' FILE LOCATION: 1"= 50' DESIGNED BY: PJS DRAWN BY: DP CHECKED BY: C	VILTEARTON OF THE DOCUMENT, EXCEPT BY A LOSSNERD PROFESSIONAL IS LLIGAL."	mail: h2m@h2m.com ww.h2m.com K6511-756-8000	ZMACHER, McLENDON & MURRELL, P.C. Broad Hollow Road, Merrille, New York 11747 ERS & ARCHITECTS & PLANNERS & SCIENTISTS & SURVEYORS

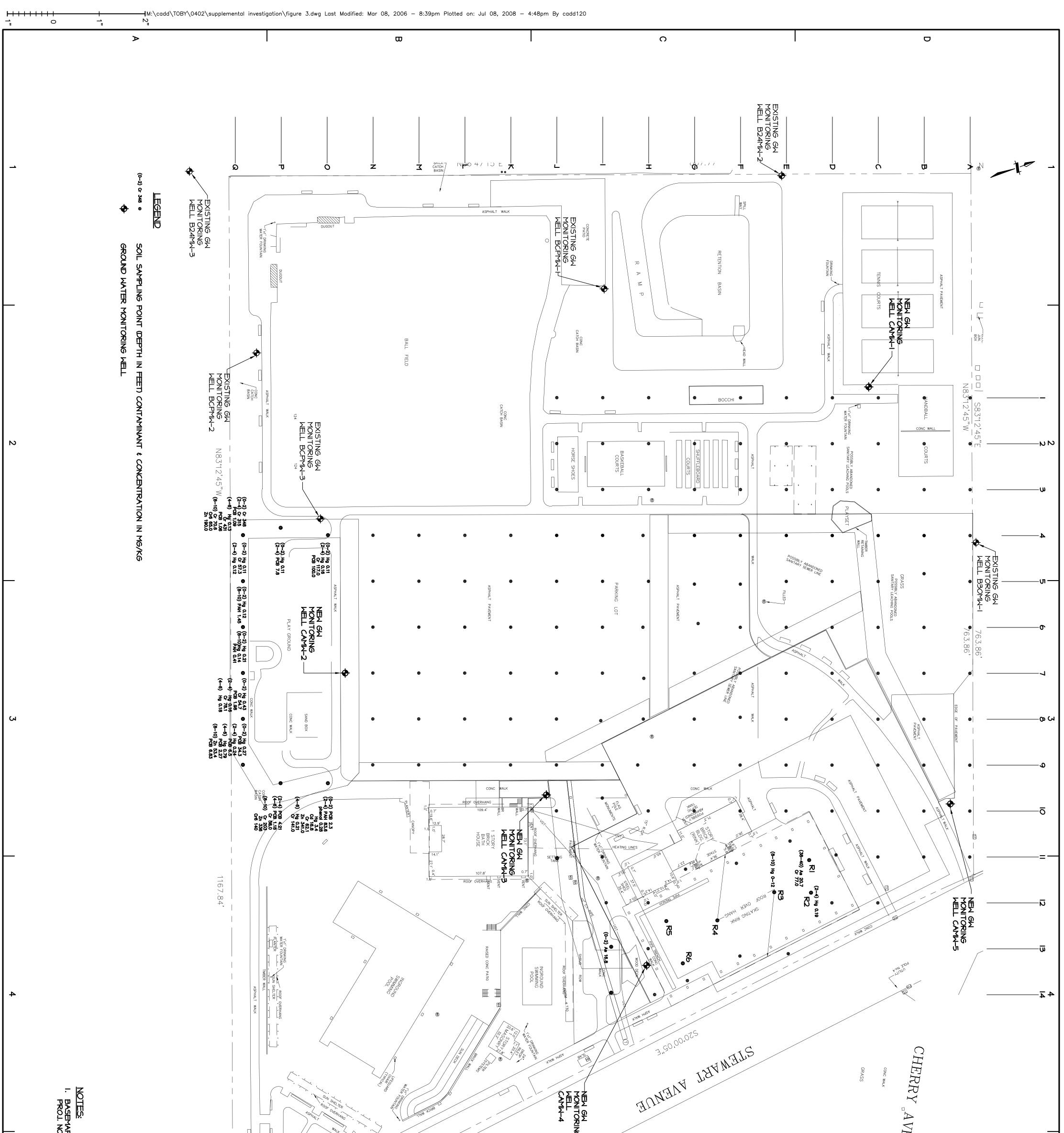
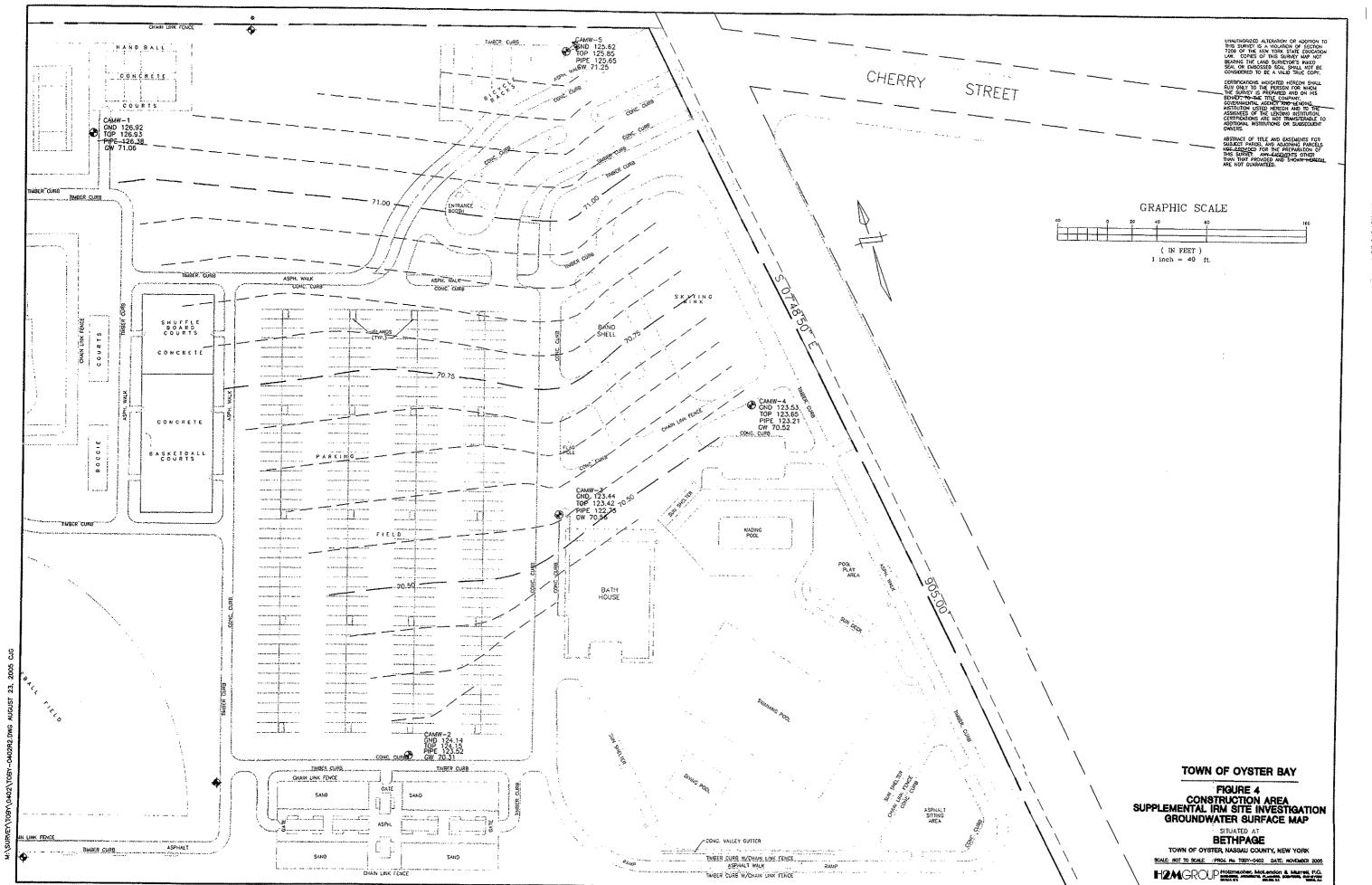
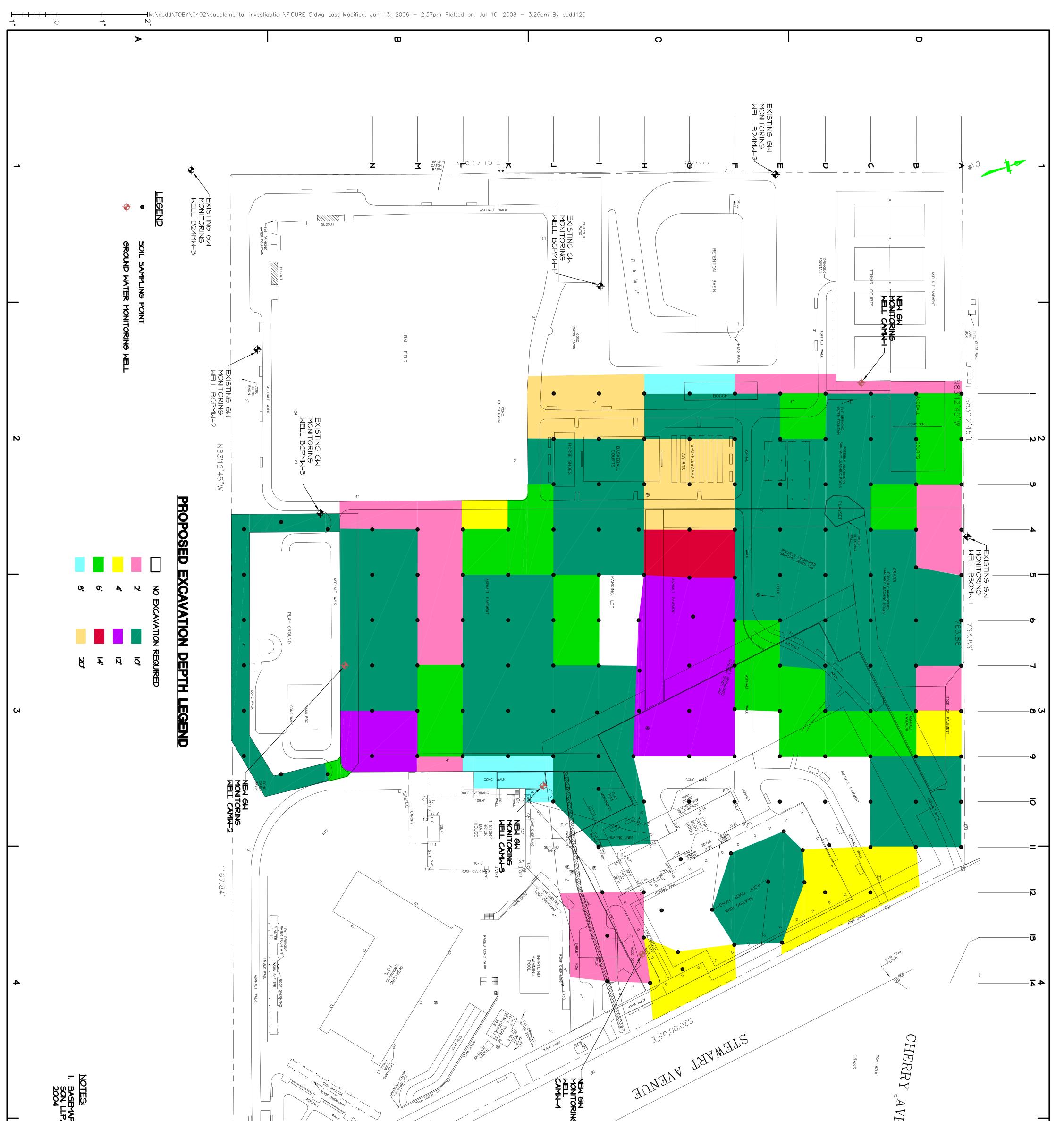


FIGURE 3	CΠ
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SOIL SAMPLING RESULTS FOR PCBS, VOCS & SVOCS	
SHEET TITLE	
CONTRACT	
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TABLE 4.2.1. SOIL SAMPLING RESULTS FOR PCBS

	NYSDEC Recommended					Borinę	Boring R-1						Boring R-2	J R-2	
Parameter	Soil Cleanup Objective ⁽¹⁾	0-2	24	4-6	89	8-10	18-20	28-30	38-40	48-50	58-60	0-2	24	4-6	8-10
	(µg/kg)	(bd/kg)	(ba/bu)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(hg/kg)	(µg/kg)	(µg/kg)	(бу/бп)	(µg/kg)	(µg/kg)
Aroclor 1016		D	n	n		0	2	Ð	Ξ	D	5	∍		5	
Aroclor 1221				Э		D	2	5	5	D	∍	⊃	D	5	>
Arociar 1232		5		D			2	5	2		Ð	∍	Ð	5	D
Aroclor 1242		5	31J	D	5	D	57	Þ	\supset		Ð	23 J	62	D	Ð
Aroclor 1248		5	D	5	5	D			2	D	5	5	Ð	S	7
Aroclor 1254		D	5	2	5	5		0	2	Ð	C	C	34	D	Ð
Araclar 1260		5	D	D	Ĵ	In	Э	⊃	∍	D	5	J	Ð	5	5
Total	1000/10000	D	31		5	ิจ	57	ŋ	n	n	l n	23	96	n	n

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046, Recommended Soil Cleanup Objectives. 1 mg/kg

for surface soils. 10 mg/kg for subsurface soils. D - Compound detected in an analysis at a secondary dilution factor.

J – Estimated Value.
P – Greater than 25% difference detected between concentrations on two Gas Chromatograph columns.

U – Compound not detected. X – Aroclor compound may be partially masked by the presence of another Aroclor. Z – Indicates compound may be biased high due to presence of another Aroclor.

TABLE 4.2.1 (continued) SOIL SAMPLING RESULTS FOR PCBS

	NYSDEC Recommended					Boring R-3							Boring R-4		
Parameter	Soil Cleanup Objective ⁽¹⁾	0-2	2-4	4-6	8-10	18-20	30-32	38-40	48-50	58-60	0-2	2-4	4-6	8-9 9	8-10
	(bg/kg)	(µg/kg)	(Jag/kg)	(µg/kg)	(µg/kg)	(bg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(hg/kg)	(bg/kg)	(b3/6r)	(ba/kg)	(jug/kg)
Arocior 1016		n	XM	n	n	n		Э	D	∍	5	Þ		D	D
Aroclor 1221		ב כ	D	5	5	ว	5	5	Ð	⊃		5	5	D	5
Aroclor 1232		٦ ١	XM		⁵	ว	5	2	D	Ξ		$\overline{}$		5	Σ
Araclar 1242		۔ ٦	130	5		D	5	2	D	Γ	39	5	20 PJ	5	30 J
Aroclor 1248		ົ	XM	2	5	2	D	0	D		Ω	D		Ð)
Araclor 1254		้อ	Xrn	2	D L	D	5	D	D		20 J	2		D	
Araclor 1260		ວັ	5	D I	D	U	n	n	D	D	U	n	D	C	D
Total	1000/10000	ົງ	130	n	٦ ا	n	D	D	D	D	59	ln.	n	n	30
0 · · · · · · · · · · · · · · · · · · ·			Al and an and	VODEO/ Tee	hnind 2. Adr	vinintentino O.	midonoo hhom	A Thomas T	010141110	Docommond.	A Coll Cloop	Oblactive	0 1 malka		

Cleanup Ubjectives. 1 mg/kg ŝ lended New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046, Recomn for surface soils. 10 mg/kg for subsurface soils.

D - Compound detected in an analysis at a secondary dilution factor.

J - Estimated Value.
 P - Greater than 25% difference detected between concentrations on two Gas Chromatograph columns.
 D - Compound not detected.
 X - Arochor compound may be partially masked by the presence of another Arochor.
 Z - Indicates compound may be biased high due to presence of another Arochor.

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TOWN OF OYSTER BAY, b., "HPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

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TABLE 4.2.1 (continued). SOIL SAMPLING RESULTS FOR PCBS

	NYSDEC Recommended			Boring R-5							Boring R-6	3 R-6				
Parameter	Soil Cleanup Objective ⁽¹⁾	0-2	24	4-6	89	8-10	0-2	2-4	4-6	6-8	8-10	20-22	28-30	38-40	48-50	58-60
	(ba/kg)	(bg/kg)	(pg/kg)	(ba/kg)	(pg/kg)	(hg/kg)	(hg/kg)	(bg/kg)	(ng/kg)	(hq/kg)	(na/kg)	(πα/ka)	(na/ka)	(na/ka)	(na/ka)	(ua/ka)
Aroclor 1016		n	D	D	D	n	Ω	n		n	n	10				
Aroclor 1221		2	D		2		1				Ö					
Aroclor 1232		0	5		D	D	0	D			0					
Aroclor 1242		0	0	2	D	n	D	20 J	0		0	5				
Aroclor 1248		2		5	5	2	2	7	5	D	D	D	0	0		D D
Aroclor 1254				5	5	2	2	20 J	29 J	D	D	D	0	2	0	0
Aroclor 1260)		n	5	D	5	n	5	Σ	n	⊃	2			1
Total	1000/10000	n	n	n	n	ົ	D	40	29	5	D		n	Б		D
(1) Nouv Vode State F	1) Nous State Decoderant of Conference of the ANVORTON To the first of Advisition of the state o	and lateration	All anitor All	L CLCCX			idaaa Maa		01010 0101		(; ;					

¹¹ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046, Recommended Soil Cleanup Objectives. 1 mg/kg for surface soils. 10 mg/kg for subsurface soils.
D - Compound detected in an analysis at a secondary dilution factor.

J = Estimated Value.
 P = Greater than 25% difference detected between concentrations on two Gas Chromatograph columns.
 U = Compound not detected.
 X = Aroclor compound may be partially masked by the presence of another Aroclor.
 Z = Indicates compound may be biased high due to presence of another Aroclor.

TABLE 4.2.1 (continued). SOIL SAMPLING RESULTS FOR PCBS

	NYSDEC Recommended		Boring I-13	1 I-13			Boring I-14	3 l-14			Boring J-11	J-11	
Parameter	Soil Cleanup Objective ⁽¹⁾	0-2	2-4	4-6	8-10	0-2	2-4	4-6	8-10	0-2	54	4-6	8-10
	(hg/kg)	(63/61)	(µg/kg)	(ng/kg)	(µg/kg)	(ug/ka)	(ILQ/KG)	(πα/κα)	(na/ka)	(na/ka)	(ua/ka)	(ua/ka)	(ua/ka)
Aroclor 1016		D	n	n	n	N					XM		
Arocior 1221			5	⊃		D	Ъ.	D	0		2		n.
Arocior 1232			0			Э	2	כ	D		N'N		
Arocior 1242					0	D	D	C	22 J		220 P	21 P.	20 P.I
Arocior 1248			2		C	C	Ċ	D	D	5	XUL		5
Aroclor 1254			2	0	D	5	D	D	0	53 JP	230	<u>ت</u>	20 P.J
Aroclor 1260		D	44	n	n	53	19 J	D		D	44	5	18.
Total	1000/10000	n	44	3	D	53	19	2		53	494	21	58
^(f) New York State L for surface soils	¹ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046, Recommended Soil Cleanup Objectives. 1 mg/kg for surface soils. 10 mg/kg for subsurface soils.	mmental Con face soils	Iservation (N)	(SDEC) Ted	hnical & Adm	inistrative Gu	iidance Mem	orandum (TA	(GM) #4046, I	Recommend	ed Soil Clean	up Objective	s. 1 mg/kg
D - Compound detected in an analysis at a secondary	ted in an analysis a	t a secondary	v dilution factor.	ъ.									
 J – Estimated Value. 													

Commented with a use of a difference detected between concentrations on two Gas Chromatograph columns.
 U - Compound not detected.
 X - Aroclor compound may be partially masked by the presence of another Aroclor.
 Z - Indicates compound may be biased high due to presence of another Aroclor.

TOWN OF OYSTER BAY, b., "HPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

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TABLE 4.2.1 (continued). SOIL SAMPLING RESULTS FOR PCBS

	NYSDEC Recommended	Boring O-4	9 0-4		Boring O-9	6-0			Boring P-4	P-4			Boring P-9	6-d 1	
Parameter	Soil Cleanup Objective ⁽¹⁾	0-2	2-4	0-2	2-4	4-6	8-10	0-2	24	4-6 6	8-10	0-2	24	4-6	8-10
	(hg/kg)	(bg/kg)	(bd/kg)	(ba/bri)	(jug/kg)	(hg/kg)		(bg/kg)	(pg/kg)	(bą/gh)	(b3/b1)	(bd/br)	(bg/kg)	(hg/kg)	(µg/kg)
Aroclor 1016		XM	Xrn	XM	XM	Xrn	Xrn	Xrn	XM	D	XM	XM	Xm	XM	XM
Aroclor 1221		Э	D	S	D	0	0	D	0	D			D	D	D
Aroclar 1232		XM	- ANN	XM	XM	XM	XNr	Xm	XM	D	NUX N	XM	NUX N	Xrn	Xrn
Aroclor 1242		220 P	100000 D	1800 D	320	220	300 P	180 JP	6500 D	S	200	74 P	3700 D	000 D	120
Aroclor 1248		Xm		Xrn	XM	Xrn	Ň	N3X	Xm	ŋ	NUX N	Xrn	XN	Xrn	XM
Aroclor 1254		230 JPZ	Xrn	540 JZ	0	ZC 06	120 JZ	210 JP	1300 DJZ	Ð	63 JZ	120	510 JZ	210 JPZ	120
Aroclor 1260		48	XN	Xrn	220	31 J	55	45	XN	ŋ	47	30 J	XM	67	75
Total	1000/10000	498	100000	2340	540	341	475	435	7800	n	310	224	4210	1177	315
(I) State Vende Charle F		Colorado Con					Lance & land				č - c	Oblinet.			

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046, Recommended Soil Cleanup Objectives. 1 mg/kg for subsurface soils.
 10 mg/kg for subsurface soils.
 10 - Compound detected in an analysis at a secondary dilution factor.
 10 - Compound detected in an analysis at a secondary dilution factor.
 10 - Compound detected in an analysis at a secondary dilution factor.
 10 - Compound detected between concentrations on two Gas Chromatograph columns.
 10 - Compound not detected.
 11 - Compound may be partially masked by the presence of another Arcolor.
 12 - Indicates compound may be biased high due to presence of another Arcolor.

TABLE 4.2.1 (continued). SOIL SAMPLING RESULTS FOR PCBS

	NYSDEC Recommended		Borin	Boring Q-4			Boring Q-5	3 Q-5			Borin	Boring Q-6	
Parameter	Soil Cleanup Objective ⁽¹⁾	0-2	2-4	4-6	8-10	0-2	2.4	4-6	8-10	0-2	2-4	4-6	8-10
	(µg/kg)	(ng/kg)	(ng/kg)	(by/gn)	(by/bri)	(µg/kg)	(bg/kg)	(pg/kg)	(µg/kg)	(ng/kg)	(ng/kg)	(ng/kg)	(Iag/kg)
Aroclor 1016		XN)	XĩN	NUX	xm	D	Э	D	D	Xrn		D	0
Araclor 1221			5		⊃	5	D	S	5	5		5	D
Aroclor 1232		Xrn	XM	XM	XM	⊃	5	S		NUX		0	D
Aroclar 1242		190 JP	190	470	72	D	5	5		140 P		22 J	48
Aroclor 1248		XM	XM	Xrn	XM	>	0			XM	Ξ	0	
Aroclor 1254		170 JPZ	500 P	350 JPZ	Zdf 69	23 J		17 PJ	5	110 JPZ	þ)	41 JZ
Aroclor 1260		82 P	400 P	240 P	80 P	61 P	46 P	29 PJ	4 7 7		21 PJ	2	21 PJ
Totat	1000/10000	442	1090	1060	149	84	46	46	41	319	21	22	110

Memorandum (I AGM) #4046, Recommended Soil Gleanup Ubjectives. 1 mg/kg ñ

^{VV} New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Gu for subsurface soils.
 I - Compound detected in an analysis at a secondary dilution factor.
 J - Estimated Value.
 P - Greater than 25% difference detected between concentrations on two Gas Chromatograph columns.
 U - Compound not detected.
 X - Anoclor compound may be partially masked by the presence of another Aroclor.
 Z - Indicates compound may be biased high due to presence of another Aroclor.

TABLE 4.2.1 (continued). SOIL SAMPLING RESULTS FOR PCBS

	NYSDEC Recommended		Borin	oring Q-7			Boring Q-8	g Q-8			Boring Q-9	Q-9	
Parameter	Soil Cleanup Objective ⁽¹⁾	0-2	2-4	4-6	8-10	0-2	24	4-6	8-10	0-2	2.4	4-6	8-10
	(µg/kg)	(µg/kg)	(µg/kg)	(hg/kg)	(pg/kg)	(bg/kg)	(jug/kg)	(jug/kg)	(ILG/Kg)	(I10/ka)	(ua/ka)	(ua/ka)	(na/ka)
Arocior 1016		ົ	XM	Xrn		XM	XM	XN		Xrn			XIII
Arocior 1221		D	D	- -	2	D		5		=	=	=	; =
Aroclor 1232		D	XM	XM	>	Xrn	Xm	1 Xrn		N.N	XITI	XIII	Î
Aroclor 1242		83	230 JP	72	50 P	1100 D	440	240 P	5	28000 DP	4800 D	1900 DP	5200 D
Aroclor 1248			Xrn	Xrn	2	Xrn			5	XUL	XM	Xrn	Xrn
Aroclor 1254		300	200 P	67P	50 P	450 JPZ	330 JPZ	Ţ	D.	6300 DJPZ	1700 DJZ	370 JPZ	1500 DJZ
Arocior 1260		44 P	47	17 PJ	31 PJ	430			5	ХЛ	ň	Xm	130
Total	1000/10000	427	477	156	131	1980	930	502		34300	6500	2270	6830

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046, Recommended Soil Cleanup Objectives. 1 mg/kg for subsurface soils.
 Compound detected in an analysis at a secondary dilution factor.
 L Estimated Value.
 Compound not detected between concentrations on two Gas Chromatograph columns.
 Compound not detected.
 X - Aroclor compound may be partially masked by the presence of another Aroclor.
 Z - Indicates compound may be biased high due to presence of another Aroclor.

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TOWN OF OYSTER BAY, BL. "HPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

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TABLE 4.2.2. SOIL SAMPLING RESULTS FOR METALS

Darameter	NYSDEC Recommended	NYSDEC Fastern IISA					Boring R-1	-1 R-1						Boring R-2	ł R-2	
80	Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	0-2	24	4-6	8 8 9	8-10	18-20	28-30	38-40	48-50	58-60	0-2	2-4	4-6	8-10
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Mercury	0.1	0.001 - 0.2	0.054	C	D	5	D		0.074 B	0.088 B	0.075 B	0.083 B	0.065 B	0.19	n	
Aluminum	SB	33,000				1590	,							1660		
Antimony	ß	N/A				∍				••••••				2		
Arsenic	7.5 or SB	3 - 12	0.61	0.61 B	D	D	D	0.63 B	3.3*	20.7 *	1.5 *	1.2*	C	1.1	0.73 B	1.2
Barium	300 or SB	15 - 600		8.5 B	5.2 B	3.9 B	3.3 B	5.7 B	14.9 B	10.9 B	3.5 B	4.0 B	4.0 B	6.9 B	5.5 B	5.9 B
Benyllium	0.16 or SB	0 - 1.75				0.13 B								0.17 B		
Calcium	SB	130 - 35,000				43.8 B								64.0 JBE		
Cadmium	10	0.1 - 1	0.040	0.065 B	5	∍		0.066 B	0.15 B	5	D	2	0.058 B	0.15 B	0.069 B	0.075 B
Chromium	50	1.5 - 40		74*	5.1 *	2.5 *	2.0*	7.2*	19.1 *	77.0 *	2.6 *	4.0 *	2.0 *	7.3*	8.5 *	17.3 *
Cobalt	30 or SB	2.5 - 60				1.3 B								1.4 B		
Copper	25 or SB	1-50			•••	2.5 B						·		3.9	••••••	
Iron	2,000 or SB	2,000 - 550,000			•••••	4420 *								3810		
Lead	400	200 - 500	1,3	1.9	1.2	0.75	0.81	0.99	4.5	0.12 U*	1.2 *	2.9*	0.66	1.9	0.83	0.73
Magnesium	SB	100 - 5,000				179 B								269 JBE		
Manganese	SB	20-2,000				116 JN								54.6		
Nickel	13 or SB	0.5 - 25				2.0 B			,-,					1.6 B		
Potassium	SB	8,500 - 43,000				154 B								192 B		
Selenium	2 or SB	0.1 - 3.9	0.58	D			5)	NN	NUN	NN	NUU	D	5	D	D
Silver	SB	N/A	0.39	5		D	5	0.62 B	D	D	D	Э	D	D	0.67 B	
Sodium	SB	6,000 - 8,000				19.5 B								27.0 B		
Thallium	SB	N/A	· .			Γ								0		
Vanadium	150 or SB	1 - 300				2.7 B								3.9 B		
Zinc	20 or SB	9 - 50				7.5 J*								6.7 JE		
Chromium, hexavalent	avalent					D								n		
Cyanide		Cyanide												0		
(1) along Voide State	Denotment of Eau	increased Concerns	TO ALVOUT	N Tashalasi	0 A damininter	0.41	A Acres of the		02017							

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046.
 B – Parameter detected less than the Contract Required Detection Limit (CRDL) but greater than Instrumentation Detection Limit (IDL).
 E – Reported value is estimated due to the presence of interference.
 N – Matrix spike sample recovery not within control limits.
 U – Parameter was analyzed for but not detected, i.e., less than IDL.
 * - Duplicate analysis is not within control limits.

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TOWN OF OYSTER BAY, BL I HPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

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SOIL SAMPLING RESULTS FOR METALS	
TABLE 4.2.2 (continued).	

Darameter	NYSDEC Recommended	NYSDEC Estern ISA					Boring R-3							Boring R-4		
	Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	0-2	24	4-6	8-10	18-20	30-32	38-40	48-50	58-60	0-2	24	4-6	6-8	8-10
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ba/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)
Mercury	0.1	0.001 - 0.2	D	2	0.071 B	0.12	0.083 B	0.083 B	0.088 B	0.10 B	0.068 B					
Aluminum	SB	33,000		2020						686 JE*					1040	
Antimony	SB	N/A		0						NLU						
Arsenic	7.5 or SB	3 - 12	D	0.77 B	D	C	1.6 *	3.3 +	10.9 *	3.4 *	5.5 *	4.0	0.88 B	0.97 B	0	1.3
Barium	300 or SB	15 - 600	8.1B	7.1 B	4.4 B	5.6 B	20.1 B	5.5 B	4.7 B	4.3 B	5.4 B	6.3 B	6.4 B	8.0 B	3.1 B	7.7 B
Beryllium	0.16 or SB	0 - 1.75		0.16 B						ß					0.071 B	
Calcium	SB	130 - 35,000		75.8 B						98.2 B					37.1 BEJ	
Cadmium	10	0.1 - 1	0.092 B	0.074 B	0.094 B	ົດ	3	0.15 B	0.18 B	0.046 B	m	0.13 B	0.12 B	0.071 B		0.092 B
Chromium	20	1.5 - 40	47.	8.7 *	4.0 *	6.2 *	8.4 *	15.0 *	35.2 *	6,8 *	4.1*	17.5	* 8.8	17.3*	1.2*	11.8
Cobalt	30 or SB	2.5 - 60		1.2 B						0.44 B					0.73 B	
Copper	25 or SB	1 - 50		2.4 B						2.9					1.28	
Iron	2,000 or SB	2,000 - 550,000		3620 *					******	5360 *					2140	
Lead	400	200 - 500	1.6	2.5	1.3	0.95	1.5 *	0.96 *	0.35 *	2.0 *	3.6*	1.6	1.2	1.0	0.50	1.1
Magnesium	SB	100 - 5,000		340 B						31.0 B			1	••	138 JBE	
Manganese	SB	50 - 5,000		54.1 JN						18.1		••••••		••••••	50.8	
Nickel	13 or SB	0.5 - 25		2.0 B						0.88 B					0.78 B	
Potassium	SB	8,500 - 43,000		176 B						126 JBE					101 B	
Selenium		0.1 - 3.9	⊃)	D	NN	- NN	NN	NUN	NN	1.8	Ĵ	0		D
Silver		N/A		5		D		Ξ	D		D		5			
Sodium		6,000 - 8,000		19.9 B						0					1838	I
Thallium		N/A		D									••••••			
Vanadium	0 or SB	1 - 300		4.18		•••••				5.9					21B	
Zinc	l or SB	9 - 50		9.1 J*						5.0 JE*					3.4 JE	
Chromium, hexavalent				∍						ר					n	
Cyanide								••••		2					Π	•••••
	December of Levi		AIVED T													

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046. B - Parameter detected less than the Contract Required Detection Limit (CRDL) but greater than Instrumentation Detection Limit (IDL). E - Reported value is estimated due to the presence of interference. N - Matrix spike sample recovery not within control limits. U - Parameter was analyzed for but not detected, i.e., less than IDL.

	NYSDEC	NYSDEC			Boring R-5		
Parameter	Recommended	Eastern I ISA					
	Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	0-2	24	4-6	6-8	8-10
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Mercury	0.1	0.001 - 0.2	D	0.060 B	Γ	0.081 B	0.072 B
Aluminum	SB	33,000			1620	1810	
Antimony	SB	N/A					
Arsenic	7.5 or SB	3 - 12	2	2.4	0.84 B	0.58 B	0.76 B
Barium	300 or SB	15 - 600	6.9 B	6.2 B	4.9 B	8.1 B	10.6 B
Beryllium	0.16 or SB	0 - 1.75			0.12 B	0,13 B	
Calcium	ß	130 - 35,000			170 B	452 B	
Cadmium	10	0.1 - 1	0.054 B	0.039 B	0.068 B	0.087 B	0.21 B
Chromium	50	1.5 - 40	3.8*	3.5 *	6.3*	11.5*	15.4 *
Cobalt	30 or SB	2.5 - 60	••••		2.0 B	2.0 B	
Copper	25 or SB	1-50			1.8 B	2.7	
Iron	2,000 or SB	2,000 - 550,000			4660 *	4690 *	
Lead	400	200 - 500	1.3	1.7	1.0	1.5	1.7
Magnesium	SB	100 - 5,000			215 B	328 B	
Manganese	SB	50 - 5,000			55.7 JN	48.5 JN	
Nickel	13 or SB	0.5 - 25		••••	4.1B	3.4 B	
Potassium	as	8,500 - 43,000			185 B	257 B	
Selenium	2 or SB	0.1 - 3.9	0	D	0		n
Silver	SB	N/A	0.85 B	5	D	D	Э
Sodium	SB	6,000 - 8,000			37.2 B	40.1 B	
Thalium	SB	N/A			2	Э	
Vanadium	150 or SB	1 - 300			4.5 B	3.7 B	
Zinc	20 or SB	9 - 50			8.5 J*	9.2 J*	
Chromium, hexavalent	avalent				D	D	
Cyanide					þ	D	
(1) Now Vork State	Conortmont of Card	1) Now Vick State Decodement of Extinemental Connection (NVOCCO) Truther 10, 64-1-1-1-10	NOOD	- Tooboical			

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046.
 B - Parameter detected less than the Contract Required Detection Limit (CRDL) but greater than Instrumentation Detection Limit (IDL).
 E Reported value is estimated due to the presence of interference.
 N - Matix spike same researce of onterference.
 U - Parameter was analyzed for but not detected, i.e., less than IDL.
 - Duplicate analysis is not within control limits.

TABLE 4.2.2 (continued). SOIL SAMPLING RESULTS FOR METALS

Darameter	NYSDEC Recommended	NYSDEC Escient ISA					Boring R-6) R-6				
	Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	7-0	24	4-6 8-1	6-8	8-10	20-22	28-30	38-40	48-50	58-60
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/ka)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)
Mercury	0.1	0.001 - 0.2	Γ		5	0.073 B	0.077 B	0.074 B	0.075 B	0.074 B	0.086 B	0.083 B
Aluminum	SB	33,000				1430 EJ*	1					
Antimony	BS	N/A				0.34 UJN						
Arsenic	7.5 or SB	3 - 12	1.7	D	D	0.74 B*	0.78 B*	11*	10.1	34*	7.9*	16*
Barium	300 or SB	15 - 600	5.8 B	6.4 B	5.6 B	4.5 B	4.8 B	7.78	5.1 B	4.6 B	6.18	5.5 B
Beryllium	0.16 or SB	0 - 1.75				0.10 B						
Calcium	ß	130 - 35,000				466 B						
Cadmium	10	0.1 - 1	0.070 B	0.080 B	0.052 B	Ŭ	0.042 B	n	0	0.15 B	0.19 B	
Chromium	50	1.5 - 40	11.5*	5.8*	7.8 *		5.3 *	9.6	3.1*	* 2.65	10.2 *	5.4
Cobalt	30 or SB	2.5 - 60										
Copper	25 or SB	1 - 50				1.9 B						
lron	2,000 or SB	2,000 - 550,000				4760 *						
-ead	400	200 - 500	1.2	1.3	1.0	1.6 *	* 66.0	0.78	0.62 *	.4.	1.55	, 0.
Magnesium	ß	100 - 5,000				215 B						
Manganese	SB	50 - 5,000				55.7						
Nickel	13 or SB	0.5 - 25				1.4 B						
Potassium	SB	8,500 - 43,000				144 JBE						
Selenium	2 or SB	0.1 - 3.9	5	D	2	0.55 UJN	NN	NN	NN	NN	NITT	ITIN
Silver	SB	N/A	1.5	D	D	D	ົ	n		Ξ	=	; =
Sodium	SB	6,000 - 8,000				18.5 B)	})	>)	>
Thallium	SB	N/A				5						
Vanadium	150 or SB	1 - 300				4.2 B						
Zinc	20 or SB	9-50				7.1 JE*						
Chromium, hexavalent	avalent											
Cvanide						-						

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046.
 B – Parameter detected less than the Contract Required Detection Limit (CRDL) but greater than Instrumentation Detection Limit (IDL).
 E – Reported value is analyzed for but not detected. I i.e. less than iDL.
 U – Parameter was analyzed for but not detected. i.e. less than iDL.
 * - Duplicate analysis is not within control limits.

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TOWN OF OYSTER BAY, BETHPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

TABLE 4.2.2 (continued). SOIL SAMPLING RESULTS FOR METALS

Parameter	NYSDEC Recommended	NYSDEC Fastern I ISA		Boring I-13	j I-13			Boring I-14	-14			Boring J-11	J-1 {	
2	Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	0-2	2.4	4-6	8-10	0-2	2-4	4-6	8-10	0-2	24	4-6	8-10
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/ka)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)
Mercury	0.1	0.001 - 0.2	D	D	⊐		5	5	D				0.069 B	
Aluminum	SB	33,000		****		870 *	1060			I	1040 *))
Antimony	SB	N/A				0	n		**-***		=			
Arsenic	7.5 or SB	3 - 12	16.8 JN	0.47 BJN	0.82 BJN	0.58 BJN	Ō		0.96 B		0.40 B.IN	26.IN	1 9.IN	N S F
Barium	300 or SB	15-600	3.6 B*	5.4 B*	4,4 8*	4.2 B*	4.6 B	438	3.1 B	5.6 B	40.8*	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	04 D.	* 4 0 9
Beryllium	0.16 or SB	0 - 1.75				ß	0.11 B					1	 - -)
Calcium	ß	130 - 35,000				62.4 B*	108 BEJ				107 JB*			
Cadmium	0	0.1 - 1	*NUL	0.27 JBN*	1.NUL	NUL	0.13 B	0.095 B	0.11 B	0.15 B	*NIT	11.IN	*NI?1	0 12 B.IN*
Chromium	20	1.5 - 40	35.4 JN*	41.0 JN*	2.7 JN*	1.6 JN*	16.8	25.7 +	4 * 1 *	17.5 *	31.IN*	17 6 JN*	18 2.IN*	*NI- 222
Cobalt	30 or SB	2.5 - 60				0.64 B	0.83 B				0.71 B			
Copper	25 or SB	1 - 50				1.4 JBN*	1.78				1.3 JBN*			
lron	2,000 or SB	2,000 - 550,000				2710	2670				2020			
Lead	400	200 - 500	* 5 5	17	1.3 *	1.0*	0.68	0.81	0.62	0.88	0.74 *	4.4 *	5.6 *	16*
Magnesium	SB	100 - 5,000				146 B*	202 JBE				172 B*			
Manganese	SB	50 - 5,000				25.2	21.2		•••••		31.6		_	
Nickel	13 or SB	0.5 - 25				1.7 8*	0.93 B				1.0 8*			
Potassium	SB	8,500 - 43,000				93.0 B	155 B		******		88.1 B			
Selenium	2 or SB	0.1-3.9	0.51	Σ	<u>۔</u>	3	0	D	D	5	0	0.61	0.57	0.56
Silver	ß	N/A			>	D							=	200
Sodium	ß	6,000 - 8,000				38.7 B	34.98	1	•)	1488	>)	>
Thalfium	SB	N/A				D								
Vanadium	150 or SB	1 - 300				1.98	2.4 B				22B			
Zinc	20 or SB	9 - 50				7.4 *	7.6 JE				* 1 2			
Chromium, hexavalent	avalent					n	n				D			
Cyanide						n	1) =			
(I) Name Variation		() Now Vork Stein Decodment of Environmental Connection ANYOFIC: T_LETER A 3.		- Tobalas	0 1 4 4 4 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5	C				-	>			

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046.
 B - Parameter detected less than the Contract Required Detection Limit (CRDL) but greater than Instrumentation Detection Limit (IDL).
 E - Reported value is estimated due to the presence of interference.
 N - Matrix spike samely recovery not within control limits.
 U - Parameter was analyzed for but not detected, i.e., less than IDL.
 * - Duplicate analysis is not within control limits.

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TOWN OF OYSTER BAY, BE IHPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

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SOIL SAMPLING RESULTS FOR METALS	
TABLE 4.2.2 (continued).	

	Recommended	NYSDEC Eactern USA	Boring O-4	40		Boring O-9	6-0 t			Boring P-4	ј Р-4			Boring P-9	9-9	
	Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	0-2	2-4	0-2	24	4-6	8-10	0-2	24	4-6	8-10	0-2	2-4	4-6	8-10
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ma/ka)	(mg/ka)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)	(ma/ka)
Mercury	0.1	0,001 - 0.2	0.11	0.16	0.078 B	3.4	0.21	0.096 B	0.11		n N	0.070 B			0.063 B	
Aluminum	SB	33,000				5440 *					•	5210*)		1100
Antimony	SB	N/A			*** • • •	1.5 B					•	D				0.57 B.IN
Arsenic	7.5 or SB	3 - 12	4.6 JN	3.3 JN	2.3 JN	9.0 JN	1.9 JN		4.4	2.2	0.82 B	3.1 JN	4.0	2.9	2.4	1.6
Barium	300 or SB	15 - 600	16.3 8*	25.7 *	21.4 *	223*	24.1*	16.5 B*	15.7 B	21.6 B	6.2 B	23.1 *	8.9 B	16.3 B	18,1 B	8.3 B
Beryllium	0.16 or SB	0 - 1.75				0.22 B						0.14 B		1		0.043 B
Calcium	ß	130 - 35,000				26700 *						845 J*				1270
Cadmium	10	0.1 - 1	0.25 BJN*	4.4 JN*	0.18 BJN*	16.8 JN*	0.28 BJN*	0.26 BJN*		0.29 B	D	0.45 BJN*	0.41 B	0.63	0.87	0.46 B
Chromium	50	1.5 - 40	31.2 JN*	117 JN*	23.8 JN*	62.1 JN*	141 JN*	29.0 JN*	27.0 JN*	15.3 JN*	8.7 JN	29.2 JN*	14.5	21.9	58.0	203
Cobalt	30 or SB	2.5 - 60				3.1B						3.0 B				13B
Copper	25 or SB	1 - 50				42.3 JN*				· .	•	17.3 JN*	,			6.2
lron	2,000 or SB	2,000 - 550,000			•••••	6820						8890				5580
Lead	400	200 - 500	18.7 *	23.7 -	15.4 *	54.8*	6.3 *	5.5	9.9	10,0	2.2	6.2 *	6.8	7.2	17.8	32.1
Magnesium	ß	100 - 5,000				1700 +						986 *				223 B
Manganese	ቻ	50 - 5,000				152						89.0		,		34.0 JN
Nickel	13 or SB	0.5 - 25				13.2 *						4.7 *				3.7 B
Potassium	ß	8,500 - 43,000				280 B						264 B				203 BEJ
Selenium	2 or SB	0.1 - 3.9	0.88	0.89		2.1	0.57	D	D	0.62	S		N	N	N	S
Silver	SB	N/A	0.31 B	7.9	0.27 B	0.33 B	Э	D	0.41 B	0.26 B	C	0.18 B	0.49 B	D	0,80 B	0.49 B
Sodium	SB	6,000 - 8,000				111 B						26.4 B				29.0 B
Thallium	SB	N/A				D						D				
Vanadium	150 or SB	1-300				8.9						16.7				3.2 B
Zinc	20 or SB	9-50				341 *						35.7 *				336
Chromium, hexavalent	/alent					D						1.2				140
Cyanide						5										15

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046.
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 E – Reported value is estimated due to the presence of interference.
 N – Matrix spike sample recovery not within control limits.
 U – Parameter was analyzed for but not detected, i.e., less than IDL.
 * - Duplicate analysis is not within control limits.

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TOWN OF OYSTER BAY, be I HPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

TABLE 4.2.2 (continued). SOIL SAMPLING RESULTS FOR METALS

Soli Cleanup (mg/kg) Exaction (mg/kg) 0.2 2.4 4.6 8.10 0.2 2.4 4.6 8.10 0.2 (mg/kg)	Concernation	NYSDEC Recommended	NYSDEC Ester LISA		Boring Q-4	0 4			Boring Q-5	I Q-5			Boring Q-6	1 Q-6	
(mg/kg) (mg/kg) <t< td=""><td></td><td>Soil Cleanup Objective⁽¹⁾</td><td>Background⁽¹⁾</td><td>0-2</td><td>2-4</td><td>4-6</td><td>8-10</td><td>0-2</td><td>2-4</td><td>4-6</td><td>8-10</td><td>0-2</td><td>2-4</td><td>4-6</td><td>8-10</td></t<>		Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	0-2	2-4	4-6	8-10	0-2	2-4	4-6	8-10	0-2	2-4	4-6	8-10
0.1 0.001-0.2 0.077 B 0.13 0.1 0.12 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.057 B 0.13 0.050 B 0.11 0.050 B 0.11 0.050 B 0.11 0.050 B 0.11 0.071 B 0.12 B 0.051 B 0.071 B 0.01 B <td></td> <td>(mg/kg)</td> <td>(mg/kg)</td> <td></td> <td>(mg/kg)</td>		(mg/kg)	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SE 33,000 1320 1320 1320 5930 5930 100 100 100 113 229 311 2333 2300 311 2333 2333	Mercury	0.1	0.001 - 0.2		0.094 B	0.13	D	0.11	0.12		0.057 B	0.12	0.063 B		0.064 B
SB N(A SB N(A SB U/UN U/UN <thu th="" un<=""> <thu th="" un<=""> <thu th="" un<=""></thu></thu></thu>	Aluminum	ß	33,000				1320				5930				4480
7.5 or SB 3-12 3.6 2.0 2.9 0.43 B 2.1 4.0 1.3 2.9 3.1 300 or SB 0-1.75 40.4 71.1 53.9 16.1 B 21.9 28.9 12.4 B 23.9 23.0 300 or SB 10 0.1-1 53.9 16.1 B 21.9 28.9 12.4 B 23.9 23.0 0 58 10 0.1-1 348 JW 315 JW 315 JW 70.1 B 21.9 28.9 0.74 50 2.5 - 60 0.1-1 348 JW 315 JW 315 JW 315 JW 431 JW 70.2 B 20.0 28 B 20.7 H 21.4 JW 300 r58 2.5 - 60 1.50 30.5 H 30.5 H 431 JW 431 JW 434 JW 414 JW 300 r58 2.00 - 500 32.2 2.2 G S 21.8 0.12 S 25.6 JW 434 JW 414 JW 25 or 5,000 32.2 S 2.15 B 2.0 S S 2.11.3 36.4 5.1 72.8 B 2.14	Antimony	SB	N/A				NN				NN				NUN
300 or SB 15 - 600 40.4 71.1 53.9 16.1 B 21.9 28.9 12.4 B 23.9 23.9 23.0 0.16 or SB 0 - 1.75 0 - 1.75 0 - 1.75 0 - 1.75 0.16 B 23.9 23.9 23.9 23.0 0.16 or SB 10 - 1.75 0 - 1.75 0 - 1.75 0.16 B 10 0.16 B 21.8 0.36 B 0.16 B 23.9 23.0 23.9 23.0 23.1 N* 23.1 N	Arsenic	7.5 or SB	3 - 12		2.0	2.9	0.43 B	2.1	4.0	1.3	2.9	3.1	3.8	0.59 B	2.6
0.16 or SB 0 - 1.75 0 0.16 br SB 0 - 1.75 0 0.16 br SB 0 - 1.75 0.05 B 0 - 1.75 0.05 B 0 - 1.75 0.05 B 0 - 1.75 0 - 1.75 0.05 B 0 - 1.75 0 - 1.75 0 - 1.2 B 0 - 0.38 B 0 - 1.0 B 0 - 0.38 B 0 - 1.0 B 0 - 0.38 B 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 0.71 0 - 1.1 - 0.71 0 - 0.71 <td>Barium</td> <td>300 or SB</td> <td>15 - 600</td> <td></td> <td>71.1</td> <td>53.9</td> <td>16.1 B</td> <td>21.9</td> <td>28.9</td> <td>12.4 B</td> <td>23.9</td> <td>23.0</td> <td>26.8</td> <td>7.6 B</td> <td>22.3</td>	Barium	300 or SB	15 - 600		71.1	53.9	16.1 B	21.9	28.9	12.4 B	23.9	23.0	26.8	7.6 B	22.3
SB 130 - 35,000 305 11.2 170 B 0.12 B 0.12 B 0.12 B 0.12 B 0.028 B 0.071 5 0.1 - 1 2.9 0.62 1.2 0.12 B 0.12 B 0.028 B 0.071 5 5 or SB 2.5 or SB 1.5 or SC 315 JN* 3315 JN* 706 JN* 57.3 JN* 49.4 JN* 41.4 JN* 300 r SB 2.5 or SB 1 - 50 305 F 305 F 305 F 315 JN* 431 JN* 706 JN* 57.3 JN* 49.4 JN* 41.4 JN* 25 or SB 1 - 50 300 or SB 2.000 - 550,000 32.2 22.6 B 231.5 B 30.6 JN 31.3 JN 46.6 JN* 41.4 JN* 400 200 - 500 32.2 22.6 B 231.6 B 11.3 B 36.4 B 51.1 T36 21.4 JN* 200 - 500 320 - 500 32.2 Z5.6 C 23.1 S 11.3 S6.4 S5.1 T36 21.4 JN* 30 - 5 00 5.000 - 5.000 32.5 Z5.6 S5 1.3 BE 1.3 BE 0.7 4 0.5 S 2.14 JN* 13 or S B </td <td>Beryllium</td> <td>0.16 or SB</td> <td>0 - 1.75</td> <td></td> <td></td> <td></td> <td>n</td> <td></td> <td></td> <td></td> <td>0.16 B</td> <td></td> <td></td> <td></td> <td>0.12 B</td>	Beryllium	0.16 or SB	0 - 1.75				n				0.16 B				0.12 B
10 0.1-1 2.9 0.62 1.2 0.12 B 0.12 B 0.12 B 0.12 B 0.12 B 0.01 B	Calcium	ß	130 - 35,000				170 B		~~~~		305 B				482 B
50 1.5 - 40 345 JN* 315 JN* 70.6 JN* 77.3 JN* 76.6 JN* 11.0 JN* 49.4 JN* 41.4 JN* 30 or SB 2.5 - 60 348 JN* 315 JN* 70.6 JN* 71.0 JN* 49.4 JN* 41.4 JN* 200 or SB 2.5 - 60 3.0 EV 3.0 EV 3.0 EV 3.0 EV 8.7.3 JN* 46.6 JN* 11.0 JN* 49.4 JN* 41.4 JN* 200 or SB 2.000 - 550.000 3.2.2 2.2.6 29.5 6.1 11.3 36.4 5.1 13.6 21.4 210 - 5000 3.0.5 2.15 B 2.065 JN 3.6.4 5.1 13.6 21.4 213 OF SB 5.00 - 43.000 3.2.2 2.2.6 JN 75.9 JN 75.9 JN 313 OF SB 0.1 - 3.9 0.61 1.3 BEJ U U U 0.54 HJ 13.6 201 SB 0.1 - 3.9 0.55 B 0.713 BEJ U U U 0.54 HJ JJ 2 or SB 0.1 - 3.0 0.55 B 0.57 B 0.57 B	Cadmium	10	0.1 - 1		0.62	1.2	0.12B	0.12 B	0.38 B	ŝ	0.28 B	0.71	0,49 B	D	0.37 B
30 or SB 2.5-60 1.8 b 1.8 b 2.8 b 2.5 b 2.8 b 2.1 b 3.8 b 3.1 b 3.8 b 3.1 b 3.8 b 3.1 b 3.8 b 3.1 b	Chromium	50	1.5 - 40	348	315 JN*	431 JN ⁺	70.6 JN*	57.3 JN*	46.6 JN*	11.0 JN*	49.4 JN*	41.4 JN*	34.2 JN*	3.1 JN*	31.2 JN*
25 or SB 1 - 50 30 E 'J 30 E 'J 9.5 E 'J 2000 or SB 2000 - 550,000 32.2 29.5 6.1 11.3 36.4 5.1 13.6 8830 2000 - 550,000 32.2 22.6 29.5 6.1 11.3 36.4 5.1 13.6 883 50 - 5,000 32.2 22.6 29.5 215 B 75.9 JN 75.9 JN 88 50 - 5,000 32.2 22.6 29.5 215 B 75.9 JN 75.9 JN 13 or SB 0.5 - 25 0.5 13 0.61 U U U U 0.3 2 or SB 0.60 1.3 0.61 U U U U 0.54 2 or SB 0.1-3.9 0.60 1.3 BE J 0.74 0.54 0.54 2 or SB 0.15 B 0.55 B 0.55 B 0.57 B U U U 0.27 B 0.57 B 2 or SB N/A 2.30 3.3 B 1.5.7 B 0.56 B <t< td=""><td>Cobalt</td><td>30 or SB</td><td>2.5 - 60</td><td></td><td></td><td>•••</td><td>1.8 B</td><td></td><td></td><td></td><td>2.8 B</td><td>_</td><td></td><td></td><td>2.6 B</td></t<>	Cobalt	30 or SB	2.5 - 60			•••	1.8 B				2.8 B	_			2.6 B
2,000 or SB 2,000 - 550,000 32.2 22.6 29.5 6.1 11.3 36.4 5.1 13.6 400 200 - 500 32.2 22.6 29.5 6.1 11.3 36.4 5.1 13.6 8830 200 - 5,000 32.2 22.6 29.5 6.1 11.3 36.4 5.1 13.6 728 500 - 5,000 32.2 22.6 21.5 26.6JNN 728 728 13 or SB 0.5 - 25 0.5 - 25 1.3 B 1.3 B 1.3 B 75.9 JN 75.9 JN 13 or SB 0.5 - 25 0.5 - 30 0.60 1.3 B 0.61 U U 0.2 B 2 or SB 0.5 - 25 0.73 B 0.75 B U U U 0.2 C 2 or SB 0.1 - 3.9 0.60 1.3 B 0.75 B 15.7 B 0.27 B 2 or SB N/A 2.3 0.59 B 0.75 B 15.7 B 0.1 20 B 216 B 15.0 B 1.3 NA 3.3 B 1.5.7 B 0.66 B 11.3 2 for SB 1 - 300 3.3 B 1.5.7 B 0.66 B 11.3 150 or SB 1 - 300 3.3 B 3.3 B 11.3 2 for CSB 9 - 50<	Copper	25 or SB	1-50				3.0 E*J				9.5 E*J				11.8 E*J
400 200 - 500 32.2 22.6 6.1 11.3 36.4 5.1 13.6 SB 100 - 5,000 32.2 22.6 215 B 215 B 728 728 728 728 728 728 728 728 729,00 75.9,00 <t< td=""><td>Iron</td><td>2,000 or SB</td><td>2,000 - 550,000</td><td></td><td></td><td>·</td><td>2880</td><td></td><td></td><td></td><td>8830</td><td></td><td></td><td></td><td>7260</td></t<>	Iron	2,000 or SB	2,000 - 550,000			·	2880				8830				7260
SB 100-5,000 215 B 728 759 JN SB 50-5,000 5.25 26,6 JN 759 JN 759 JN 13 or SB 50-5,000 43,000 1.3 B 0.61 U U 0.8 BEJ 2 or SB 0.55-25 133 BEJ U U U U 0.54 2 or SB 0.11-3.9 0.60 1.3 0.61 U U U U 0.54 2 or SB N/A 2.3 0.59 B 0.75 B 0.74 0.54 0.54 2 B N/A 2.3 0.59 B 0.75 B 1.5,7 B U <td< td=""><td>Lead</td><td>400</td><td>200 - 500</td><td></td><td>22.6</td><td>29.5</td><td>6.1</td><td>11.3</td><td>36.4</td><td>5.1</td><td>13.6</td><td>21.4</td><td>22.0</td><td>2.3</td><td>16.3</td></td<>	Lead	400	200 - 500		22.6	29.5	6.1	11.3	36.4	5.1	13.6	21.4	22.0	2.3	16.3
SB 50 - 5,000 26,6 JN 75,9 JN 13 or SB 0.5 - 25 1.3 B 7.5 g JN 26 5,000 0.5 - 25 1.3 B 4.2 28 0.5 - 25 1.3 B 0.5 - 25 28 0.5 - 42,000 0.60 1.3 0.61 0 0.5 2 or SB 0.1 - 39 0.60 1.3 0.61 0 0.04 0.54 2 or SB 0.1 - 39 0.60 1.3 0.61 0 0 0.74 0.54 2 or SB 0.1 - 33 0.59 B 0.75 B U U U U U 0.21 2 sB N/A 2.3 0.59 B 0.75 B 15.7 B 0.13 0.21 0.66 B 11.3 150 or SB 1 - 300 3.3 B 3.3 B 3.4 B 3.4 B 3.4 B 20 or SB 9 - 50 3.4 B 3.4 B 1.5 1.5 1.5	Magnesium	SB	100 - 5,000		• • • •		215 B				728				616
13 or SB 0.5 - 25 1.3 B 1.3 B 4.2 SB 8.500 - 43,000 1.3 BEJ 268 BEJ 268 BEJ SB 8.500 - 43,000 0.60 1.3 061 U U 0.0 SB 0.1 - 3.9 0.60 1.3 0.61 U U U U 0.54 SB 0.060 1.3 0.59 B 0.75 B U U U U U 0.66 B N/A 2.3 0.59 B 0.75 B 15.7 B U U U U U 0.27 B SB N/A 2.3 0.59 B 0.75 B 15.7 B 0.66 B 11.3 SB N/A 3.3 B 1.5 B 3.3 B 11.3 21.9 B 0.66 B 11.3 150 or SB 1 - 300 3.4 B 3.4 B 3.4 B 3.4 B	Manganese	ß	50 - 5,000				26.6 JN				75.9 JN				161 JN
SB 8,500-43,000 133 BEJ 268 BEJ 268 BEJ 2 or SB 0.1-3.9 0.60 1.3 0.61 U U 0.54 2 or SB 0.1-3.9 0.60 1.3 0.61 U	Nickel	13 or SB	0.5 - 25		•		1.3 B				4.2				4 9
2 or SB 0.1-3.9 0.60 1.3 0.61 U U 0.86 0.74 0.54 SB N/A 2.3 0.59 B 0.75 B 1 U U 0 0 0.27 B SB N/A 2.3 0.59 B 0.75 B 1 U U U U 0<	Potassium	SB	8,500 - 43,000				133 BEJ			,	268 BEJ				313 BEJ
SB N/A 2.3 0.59 B 0.75 B U U U U 0.27 B SB 6,000 - 8,000 8,000 8,000 21.9 B 15.7 B 15.7 B 11.3 SB N/A 1 1 1 1 1 21.9 B SB N/A 1 1 1 1 1 21.9 B SB N/A 1 1 1 1 1 21.9 B A 1 1 1 1 1 1 21.9 B 150 or SB 1 33.3 B 3.3 B 3.4.9 3.4.9 3.4.9 20 or SB 9 - 50 1 1 1 1.5 1.5	Selenium	2 or SB	0.1 - 3.9		1.3	0.61	D	Ð	0.86	0.74	0.54		0.71	D	
SB 6,000 - 8,000 15.7 B 21.9 B SB N/A U 0.66 B 150 or SB 1 - 300 3.3 B 11.3 20 or SB 9 - 50 34.9 34.9	Silver	SB	N/A		0.59 B	0.75 B	D	5		0	0.27 B	2.7	1.8	D	4
SB N/A U 150 of SB 1 - 300 3.3 B 20 of SB 9 - 50 190 estavalent 0 1100	Sodium	ß	6,000 - 8,000				15.7 B				21.9 B				24.4 B
150 or SB 1 - 300 3.3 B 20 or SB 9 - 50 190 2xvalent 65 130	Thallium	SB	N/A				D				0.66 B				0.42 B
20 or SB 9 - 50 190 65 65 65 11	Vanadium	150 or SB	1 - 300			•••••	3,3 B				11.3				8.9
m, hexavalent	Zinc	20 or SB	9 - 50	~			190				34.9				36.6
	Chromium, hex	avalent					65				1.5				D
	Cyanide						C								D

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TÅGM) #4046.
 B – Parameter detected less than the Contract Required Detection Limit (CRDL) but greater than Instrumentation Detection Limit (IDL).
 E – Reported value is ample recovery not within control limits.
 N – Matrix spike sample recovery not within control limits.
 U – Parameter was analyzed for but not detected, i.e., less than IDL.
 * - Duplicate analysis is not within control limits.

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TOWN OF OYSTER BAY, BE I HPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

TABLE 4.2.2 (continued). SOIL SAMPLING RESULTS FOR METALS

Parameter	NYSDEC Recommended	NYSDEC Fastern 11SA		Boring Q-7	1 Q-7			Boring Q-8	3 Q-8			Boring Q-9	1 Q-9	
	Soil Cleanup Objective ⁽¹⁾	Background ⁽¹⁾	0-2	2-4	4-6	8-10	0-2	54	4-6 8	8-10	0-2	24	4-6	8-10
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/ka)	(ma/ka)	(ma/ka)
Mercury	0.1	0.001 - 0.2	0.21	0.085.B	0.069 B	0.14		0.16	0.18	D	0.27	0.24	0.79	
Aluminum	ß	33,000				4500				954				2180
Antimony	ß	N/A				NUU				NUN				NND
Arsenic	7.5 or SB	3 - 12	5.3	2.2	1.4	4.0		7.8	10.6	0.97 B	6.5	6.0	4.9	1.6
Barium	300 or SB	15 - 600	28.7	31.2	13.3 B	23.0	29.7	35.8	60.4	4.9 B	24.2	20.8	21.0	15.9 B
Beryllium	0.16 or SB	0 - 1.75				0.14 B				ŝ				0.17 B
Calcium	SB	130 - 35,000				1070				146 B				591
Cadmium	10	0.1 - 1	0.62	1.8	0.85	0.84	1.8	2.3	0.72	D		1.5	0.64	0,19 B
Chromium	20	1.5 - 40	44.6	12.9	7.6	19,8		78.1	25.1	2.0	32.5	38.5	21.0	8.3
Cobalt	30 or SB	2.5 - 60				2.4 B				1.2 B				2.5 B
Copper	25 or SB	1-50				21.7				64.5				5.6
lron	2,000 or SB	2,000 - 550,000				8350				2660				4880
Lead	400	200 - 500	17.1	11.4	6.2	24.0	29.8	30.4	34.0	1.1	22.1	19.6	35.3	5.4
Magnesium	SB	100 - 5,000				749				184 B				378 B
Manganese	SB	50 - 5,000				97.2 JN				58.9 JN				192 JN
Nickel	13 or SB	0.5 - 25				4.2			****	1.18				2.5 B
Potassium	SB	8,500 - 43,000				197 BEJ				123 BEJ				213 BEJ
Selenium	2 or SB	0.1 - 3.9	N	S	N	NN		ND	N	N	0.63 JN	S	S	ND
Silver	SB	N/A	2.9	3.2	3.5	4.6	2.4	1.1	0.50 B	5	3.1	1.8	1.2	Ċ
Sodium	SB	6,000 - 8,000				40.0 B				16,9 B				22.6 B
Thailium	SB	N/A				D				5				
Vanadium	150 or SB	1-300				11.1				2.6 B				4.9 B
Zinc	20 or SB	9 - 50				49.9		•••		8.0				53.4
Chromium, hexavalent	avalent					∩								D
Cyanide)								
										,)

⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046. B – Parameter detected less than the Contract Required Detection Limit (CRDL) but greater than instrumentation Detection Limit (fDL). E – Reported value is estimated due to the presence of interference. N – Matrix spike sample recovery not within control limits. U – Parameter was analyzed for but not detected, i.e., less than IDL. • - Duplicate analysis is not within control limits.

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TOWN OF OYSTER BAY, be i'HPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

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SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUN
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TABLE 4.2.:
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	NYSDEC Recommended			Ŗ-1			R-2		R-3	n	
Parameter	Soil Cleanup Objective ⁽¹⁾	2-4 ft	6-8 ft	8-10 ft	28-30 ft	48-50 ft	24 ft	2-4 ft	8-10 ft	30-32 ft	48-50 ft
	(µg/kg)	(hg/kg)	(þg/kg)	(hg/kg)	(J)(kg)	(bg/kg)	(hg/kg)	(hg/kg)	(hg/kg)	(hg/kg)	(hg/kg)
1,1,1 Trichloroethane	800	Э	n	n		ິ່ງ	D				
1,1,2,2-Tetrachloroethane	600	Ċ	D	n		ົ	0				
,1,2 Trichloroethane		D	U	n		้อ					
.1-Dichloroethane	200	0	0	0		5	0				
,1-Dichloroethene	400	D	D	n		D					
,2-Dichloroethane	100	D	D	D		Ő					
,2-Dichloroethene	300	5	D	D	D				0		
,2 Dichloropropane		5	D	5		5					
2-Butanone	300	D	D	D		ึก	5			5	
2-Hexanone				D		'n	0			D	
4-Methyl-2-Pentanone	1000	D	n	D		ה				D	
Acetone	200		D	5	4	'n	5			Ð	
Benzene	60	2	n	5		5	D			D	
Bromodichloromethane		2	Ċ	D		ה	0			D	
Bromoform		5	Ð	D		วิ	7			D	
Bromomethane		5	5	5		้อ	5			<u></u>	
Carbon Disulfide	2700	5	5	D		¹	5				
Carbon Tetrachloride	600	2		D		้ำ				2	
Chlorobenzene	1700	5		5		'n	3			D	
Chlorodifiuoromethane			2	2		'n		2	10	0	
Chloroethane	1900	D	2	2		ñ	0			D	
Chloroform	300	0	D	3		n	D			D	
Chloromethane		0	2	5		n	5			n	
cis-1,3 Dichloropropene		<u>ں</u>	D	5		5	2			D	
Dibromochloromethane		2	5	5		5	C				
Dichlorodifluoromethane		D.	З,	2		5	Ŋ				
Ethylbenzene	5500	S	5			ō)				
Methylene chloride	100	10 U	10 BJ	10 BJ	10	10 OI	10 U	10	10	10 11	05
Styrene	•••••••	5									2
Tetrachloroethene	1400	n	Э	C		5					
Toluene	1500	D		C		Ū.					
trans-1,3 Dichloropropene		D)	Ð		D					
Trichloroethene	200	D	D	Ö		n	5				
Vinyl chloride	200	D	5	D		n	5				
Xylenes	1200	D	D	D			5				
Tatal	0000*	¢.	0,5	¢	**	~~	0.		8		

A natyte found in associated blank as well as sample and may indicate blank contamination.
 D – Analyte detected in an analysis at a secondary dilution factor.
 J – Estimated value.
 U – Parameter was analyzed but was not detected.

TABLE 4.2.3 (continued). SOIL SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCS)

	Recommended	R-4	R-5				R-6		
Parameter	Soli Cleanup Objective ⁽¹⁾	6-8 ft	4-6 ft	6-8.ft	2-4 ft	6-8 ft	8-10 ft	28-30 ft	48-50 ft
	(hg/kg)	(hg/kg)	(hg/kg)	(hg/kg)	(µg/ka)	(na/ka)	(πα/ka)	(ua/ka)	(na/ka)
1,1,1 Trichloroethane	008	⊃:	: כ	⊃:	ב		∩ >	U Straw	(-66)
1,1,2,1,2 Trichloroethane	600	55	5 3	5 =		> =	55		
1,1-Dichloroethane	200						<u> </u>		
1.1-Dichloroethene	400	D	D	0				ΣΞ	
1,2-Dichloroethane	100	<u> </u>	<u>ح</u>	Ð	0	0	50		
1,2-Dichloroethene	300		5	2	5	5	D	D	
1,2 Uichioropropane 2-Britanone	300	5 =	5:	<u> </u>		2:	⊇:	5	
2-Hexanone	2	D =	5 =	c =	5 2	. כ	> :	53	
4-Methyl-2-Pentanone	1000		Ē	> =)	52	5 2	
Acetone	200					и 2	> =	Ξ	
Benzene	60	0				, <u> </u>			
Bromodichloromethane		Ð	5					> =	
Bromoform		כ	D	0	5		> ⊃	>=	
Bromomethane		D	D	D	5				
Carbon Disulfide	2700	D	<u> </u>	Э	0				
Carbon Tetrachionde	600			D	0	Ð	Ξ	D	
Chiorobenzene	1700	2	Σ	D)	∍	D	Ū	
Chlorodifiuoromethane		n	n	Ē		D	3	D	
Chloroethane	1900	5.	5	⊃:		2	Ċ	D	
Chloromethane	000		D =	D =	5	<u> </u>	5	: د	
cis-1.3 Dichloropropene		>=	. .	D =	5 E		⊃ :: ⊃	5.	
Dibromochloromethane				Ξ	Ξ	D =) :	2	
Dichlorodifluoromethane		0r	J.			5		> ==	
Ethylbenzene	5500		D				>=		
Methylene chloride	100	10 U	10 U	10 U	11	10 01	10 11	10	*
Styrene		5	0	D	D			> = ?	-
Tetrachloroethene	1400	2	D	D		, <u> </u>		> =	
Toluene	1500	S	S					5	
trans-1,3 Dichloropropene		D	Ð	Ū) <u>-</u>) <u> </u>	> =	
Trichloroethene	200		D	0				> =	
Vinyl chłoride	200	0	D	0	, 11	<u> </u>	=) <u>-</u>	
Xylenes	1200	C	2	0		Ē	> =	>	
Total	10000	10	10	10	4	10			34

Use the second secon

TOWN OF OYSTER BAY, be IHPAGE COMMUNITY PARK INTERIM REMEDIAL MEASURE - CONSTRUCTION AREA SUPPLEMENTAL SOIL INVESTIGATION

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SOIL SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOC

Parameter Son Genup 1.1.1 Trichforoethane Son 1.1.2.2 Trichforoethane 800 1.1.2.2 Trichforoethane 800 1.1.2.1 Trichforoethane 800 1.1.Dichforoethane 800 1.1.Dichforoethane 800 1.2.Dichforoethane 800 1.2.Dichforoethane 800 1.2.Dichforoethane 800 2.2.Butanone 800 2.4exanone 1000 2.4exanone 800 2.4exanone 8	8-10 ft (µg/kg)			> >	ŧ	ଚ-ପ-	5 5	ŝ	90	Q-7
oroethane oroethane oroethane sethane sethane bethene sethane Pentanone Pentanone oromethane		0-2 ft	0-2 ft	2-4 ft	8-10 ft	8-10 ft	8-10 ft	8-10 ft	8-10 ft	8-10 ft
oroethane achloroethane ocethane sethane sethane sethane propane Pentanone Promethane oromethane		(hg/kg)	(hg/kg)	(hg/kg)	(hg/kg)	(hg/kg)	(hg/kg)	(µg/kg)	(ng/kg)	(ha/ka)
achloroethane oroethane Sethane Sethane Sethane Pertanone Pentanone oromethane oromethane	5	Э	n	D	n	n		Γ	D W W	17 X 1
oroethane cethane cethane cethene cethene propane Pentanone oromethane	D	D	D		D		0	50		
eethane eethane eethane eethane ppropane Pentanone oromethane	Ð	Σ	D	D	5	D	5			
cethene cethane cethane cethene propane Pentanone oromethane	n			D	D	n				
oethane oethene propane Pentanone oromethane	D	0	0	0	0		> =) =	
oethene propane Pentanone oromethane	D	D	0	0))			> =	> =	
propane e Pentanone oromethane	Ē	D	0	5	1	00	, _	,, 	> <u>-</u>	
e Pentanone oromethane)	5	D	5	C		5		> =	
e Pentanone oromethane	D	5	Ð	S	٦ ٦					
Pentanone oromethane	D	D	D	D	'n			<u>, </u>		
oromethane	D	D	D	0	<u>.</u>	> =) <u> </u>		
oromethane		2		с С	- D	e G) =	> =	> =	
oromethane		5) <u> </u>		> =) =	5 =	
) Ē		5 =) =	<u> </u>	
Bromotorm	5	5	Ξ					5 =) ::	
Bromomethane	0		, =) =	÷Ξ	> =		- c	0.2	
			Ū		Ξ		> =	D =	5 =	
Carbon Tetrachloride 600	n	D	Ū		Ē	> =	> =	> =		
Chlorobenzene 1700)	D	Э	5	5			> =	> =	
Chlorodifluoromethane	2	D	D	0	n) <u>=</u>) =	
je .	D	D	0		5) =	>=	
	5	D	D) <u> </u>	<u> </u>	> =	
Chloromethane	Ð	n	D	D	D					
cis-1,3 Dichloropropene	Ð	D	D	D	0					
Dibromochloromethane	Ð	D,			n	D		0.00		
omethane	5		D		n	2		n		
		<u></u> Э	0	S	S	5		n		
Methylene chloride 100	10	10	10 U	11 U	11	12 U	10	10 0	10 1	10
	0	C	D	5	5					
proethene	D	5	D	S	ñ					
Toluene 1500	D	D	5	D	Ō			, (()	9	
ropropene	Ĵ	ה ח	C	0	D			> <u>-</u>		
Frichloroethene 700		D		4		26		ک رو	> =	ç
Vinyl chloride 200 200	5	0					<u> </u>		> ::	4
•		00			> ==	<u> </u>	> =	D	- c	
Total 10000	10	10	10	20	*1	45	10	200		C *

A reliaryte tround iti associated blank as well as sample and may indicate blank contamination.
 A native detected in an analysis at a secondary dilution factor.
 J – Estimated value.
 U – Parameter was analyzed but was not detected.

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TABLE 4.2.3 (continued). SOIL SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCS)

Descentes (Kecommended		
rarameter	Soll Cleanup Objective ⁽¹⁾	8-10	8-10
	(µg/kg)	(hg/kg)	(hg/kg)
1,1,1 Trichloroethane	800	n	ם
1,1,2,2-Tetrachloroethane	600	0	2
1,1,2 Trichloroethane		2	D
1,1-Dichloroethane	200	C	D
1,1-Dichloroethene	400	D	5
1,2-Dichloroethane	100	D	
1,2-Dichloroethene	300	D]
1,2 Dichloropropane		D	0
2-Butanone	300		0
2-Hexanone		D	D
4-Methyl-2-Pentanone	1000	D	D
Acetone	200	S	D
Benzene	09	D	
Bromodichloromethane		D	
Bromoform		n	D
Bromomethane		D)
Carbon Disulfide	2700	D	0
Carbon Tetrachloride	600	5	D
Chlorobenzene	1700	D	Û
Chlorodifluoromethane		5	
Chloroethane	1900	D	D
Chloroform	300	0	D
Chioromethane		0	D
cis-1,3 Dichloropropene		2	D
Dibromochloromethane		D	Ð
Dichlorodifluoromethane		D)
Ethylbenzene	5500	0	
Methylene chloride	100	10 U	10 U
Styrene		D	D
Tetrachloroethene	1400)
Toluene	1500	D	
trans-1,3 Dichloropropene		5	
Trichloroethene	200	D	D
Vinyl chloride	200	D	
Xylenes	1200	D	0
	00000		

trative Guidance Memorandum (TAGM) #4046.

B - Analyte found in associated blank as well as sample and may indicate blank contamination.
 D - Analyte detected in an analysis at a secondary dilution factor.
 J - Estimated value.
 U - Parameter was analyzed but was not detected.

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TABLE 4.2.4. SOIL SAMPLING RESULTS FOR SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS)

. .	NYSDEC Recommended	R-1	R-2	R-3	R-3	R-4	R-5
Parameter	Soil Cleanup Objective ⁽¹⁾	6-8 ft	2-4 ft	2-4 ft	48-50 ft	6-8 ft	4-6 ft
	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
1,2,4-Trichlorobenzene	3400	U	U	U			
1,2-Dichlorobenzene		U	U	U			
1,3-Dichlorobenzene	1600	U	U	U			
1,4-Dichlorobenzene	8500	U	U	U			
2,2'-oxybis(1-chloropropane)	100	U	U	U			
2,4,5-Trichlorophenol	100	U U	U	ບ ບ			
2,4,6-Trichlorophenol 2,4-Dichlorophenol	400	U	U	0 U			
2,4-Dimethylphenol	400	U	U	U U			
2,4-Dinitrophenol	200 or MDL	Ŭ	Ŭ	Ŭ	Ŭ	υ	
2.4-Dinitrotoluene	200 01 1102	Ŭ	Ŭ	Ŭ	Ŭ	Ŭ	
2.6-Dinitrotoluene	1000	Ū	Ũ	Ū	Ũ	Ū	
2-Chloronaphthalene		U	U	U	U	U U	
2-Chlorophenol	800	U	U	U	U U	υ	
2-Methylnaphthalene	36400	U	U	Ų	U		Į
2-Methylphenol	100 or MDL	U	U	U	U	U	i.
2-Nitroaniline	430 or MDL	υ	U	U	U		t
2-Nitrophenol	330 or MDL	U	U	U	U		l
3,3'-Dichlorobenzidine 3-Nitroaniline	500 to MDI	U	U	U U	U U	U	l l
	500 or MDL	U U	U U	U	U	U U	(
4,6-Dinitro-2-methylphenol 4-Bromophenyl-phenylether		0 U	U	U	U	U U	
4-Chloro-3-methylphenol	240 or MDL	U	υ	U	U	U U	
4-Chloroaniline	220 or MDL	Ŭ	Ŭ	Ű	Ű	l ü	Ì
4-Chlorophenyl-phenylether	LEO OF MIDE	ŭ	Ŭ	Ŭ	Ŭ	ΙŬ	i
4-Methylphenol	900	Ű	Ŭ	Ŭ	Ŭ	Ū	i
4-Nitroaniline		U	U	U	U	U	l l
4-Nitrophenol	100 or MDL	U	U	U	U	U	l
Acenaphthene	50000	U	U	U	U	U	l l
Acenaphthylene	41000	U	U	U	U	U	l
Anthracene	50000	U	U	U	U	U	l
Benzo(a)anthracene	224 or MDL	U	U	U	U	U	l
Benzo(a)pyrene	61 or MDL 1100	U	U	U U	UU	ບ ບ	L L
Benzo(b)fluoranthene Benzo(g,h,i)perylene	50000	U	U	U	U	U U	
Benzo(k)fluoranthene	1100	U	Ŭ	U	Ŭ	U	1
Bis(2-chloroethoxy)methane	1100	Ŭ	Ŭ	Ŭ	Ŭ	U U	1
Bis(2-chloroethyl)ether		Ŭ	Ŭ	Ŭ	Ŭ	Ŭ	l í
Bis(2-ethylhexyl)phthalate		Ũ	Ũ	Ũ	310 J		82
Butyl benzyl phthalate	50000	U	υ	U	U	U	l
Carbazole		U	υ	U	U	U	ι
Chrysene	400	U	U	U	U	U	ι
Dibenzo(a,h)anthracene	14 or MDL	U	U	U	U	U	l
Dibenzofuran	6200	U	U	U	U	U	l
Diethylphthalate	7100	U	U	U	140 J	140 J	l
Dimethylphthalate	2000 8100	U U	U U	U U	ບ ບ	U U	l l
Di-n-butyl phthalate Di-n-octyl phthalate	50000	U	U	U	U	U U	l l
Fluoranthene	50000	U	U	11	U		
Fluorene	50000	U	U	ບ ບ	U	U	l
Hexachlorobenzene	410	Ű	Ű	Ű	Ŭ	Ű	l
Hexachlorobutadiene		Ŭ	Ŭ	Ŭ	Ŭ	Ŭ	i
Hexachlorocyclopentadiene		ŪJ	ŰĴ	ບັ	ບັ	UĴ	U.
Hexachloroethane		U	U	U	U	υ	l
Indeno(1,2,3-cd)pyrene	3200	U	U	U	U	υ	l
Isophorone	4400	U	U	U	U	ບ	ť,
Naphthalene	13000	U U	U	U	U	U	***
Nitrobenzene	200 or MDL	U	U	U	U	U	****
N-Nitroso-di-n-propylamine		ບ ບ	U	U	U	U U	l
N-Nitrosodiphenylamine Pentachlorophenol	1000 or MDL	U) U	U	U UJ	U UJ	UJ U	ບ
Phenanthrene	50000	03	03 U	U3 U	03 U	03 U	U.
Phenol	30 or MDL	U	บ	U	U	U U	
Pyrene	50000	Ŭ	Ŭ	Ŭ	Ŭ	Ŭ	i
Total	500000	Ŭ	Ŭ	Ŭ	450	140	82

(1): New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046.
 U – Parameter was analyzed but was not detected.
 J – Estimated value.

TABLE 4.2.4 (continued). SOIL SAMPLING RESULTS FOR SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS)

	NYSDEC Recommended	R-5	R-6	I-13	1-14	J-11	O-9
Parameter	Soil Cleanup Objective ⁽¹⁾	6-8 ft	6-8 ft	8-10 ft	0-2 ft	0-2 ft	2-4 ft
	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	
1,2,4-Trichlorobenzene	3400	(µg/Ng) U	U				(μg/kg) ι
1,2-Dichlorobenzene		Ŭ	Ŭ	L L			
1,3-Dichlorobenzene	1600	U	U	ί			L L
1,4-Dichlorobenzene	8500	U	U	ι ι		J U	ι
2,2'-oxybis(1-chloropropane)		U	U	L			l
2,4,5-Trichlorophenol	100	U	U			-	L
2,4,6-Trichlorophenol 2,4-Dichlorophenol	400	U U	UU	և է		-	t
2,4-Dimethylphenol	400	U	U				L L
2,4-Dinitrophenol	200 or MDL	Ŭ	Ŭ				L L
2,4-Dinitrotoluene		Ŭ	ũ	ŭ		· · · · ·	
2,6-Dinitrotoluene	1000	U	U	Ĺ			Ĺ
2-Chloronaphthalene		U	U	L		י U	ι
2-Chlorophenol	800	U	U	և			ί
2-Methylnaphthalene 2-Methylphenol	36400	U	U	L			870
2-Methyphenol 2-Nitroaniline	100 or MDL 430 or MDL	ບ ບ	U U	U			110
2-Nitrophenol	330 or MDL	U U	U U	Ŭ			L L
3,3'-Dichlorobenzidine	000 01 1102	U	Ŭ	U			L L
3-Nitroaniline	500 or MDL	บ้	Ŭ	Ŭ			L L
4,6-Dinitro-2-methylphenol		U	U	U) (Ĺ
4-Bromophenyl-phenylether	0.40	U	U	U			L
4-Chloro-3-methylphenol	240 or MDL	U U	U	U			L
4-Chloroaniline 4-Chlorophenyl-phenylether	220 or MDL	U U	U	U			L
4-Methylphenol	900	U	U	U U			410 L
4-Nitroaniline	000	U	U	U			410 L
4-Nitrophenol	100 or MDL	Ŭ	Ŭ	Ŭ			U U
Acenaphthene	50000	U	Ú	Ū			4700
Acenaphthylene	41000	U	U	U	۱ L		1500
Anthracene	50000	U	U	U	-		8500 D
Benzo(a)anthracene	224 or MDL	U	U	U			17000 D
Benzo(a)pyrene Benzo(b)fluoranthene	61 or MDL 1100	U U	U U	UU			16000 D 21000 D
Benzo(g,h,i)perylene	50000	U	Ű	Ű			21000 D 2900
Benzo(k)fluoranthene	1100	Ŭ	ŭ	Ŭ			6500 D
Bis(2-chloroethoxy)methane		Ū	Ũ	Ū		1 71	U
Bis(2-chloroethyl)ether		U	U	U	U	U	Ŭ
Bis(2-ethylhexyl)phthalate		U	U	140 J			1600
Butyl benzyl phthalate Carbazole	50000	U	U	U			U
Chrysene	400	U U	U	U			4700
Dibenzo(a,h)anthracene	14 or MDL	Ŭ	Ŭ	U	~		17000 D 1700
Dibenzofuran	6200	ŭ	Ŭ	Ŭ		· · · ·	5100
Diethylphthalate	7100	U U	83 J	1600 [°]	160 J	- 1	1800
Dimethylphthalate	2000	U	U	U		U	U
Di-n-butyl phthalate	8100	U	U	J	U		U
Di-n-octyl phthalate Fluoranthene	50000	U	U	U	U	U	U
Fluorene	50000 50000	U	U	U U		U	41000 D 10000 D
Hexachlorobenzene	410	U U	U	U			10000 D
Hexachlorobutadiene		ŭ	Ŭ	Ŭ	-		о Ц
Hexachlorocyclopentadiene		UJ	ŰĴ	ບັ			ບັ
Hexachloroethane		U	υ	U	U	U	U
Indeno(1,2,3-cd)pyrene	3200	U	U	U	-	U	4400
lsophorone Naphthalene	4400 13000	UU	U	U	-	U	U
Nitrobenzene	200 or MDL	U U	U U	UUU	-	U	2300
N-Nitroso-di-n-propylamine		Ű	U	U	-	U U	U
N-Nitrosodiphenylamine		U	Ŭ	U	U U	U	U U
Pentachlorophenol	1000 or MDL	Ū	Ű	ບັ		ů.	ບັ
Phenanthrene	50000	U	U	U		Ŭ	35000 D
Phenol							
Dumana d	30 or MDL	U	U	U		U	280 J
Pyrene Total	30 or MDL 50000 500000	U U U	U U 83	U U 1740		U U 2600	

(1): New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046. U - Parameter was analyzed but was not detected.

J - Estimated value.

TABLE 4.2.4 (continued). SOIL SAMPLING RESULTS FOR SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS)

Dementer	NYSDEC Recommended	P-4	P-9	Q-4	Q-5	Q-6	Q-7
Parameter	Soil Cleanup Objective ⁽¹⁾	8-10 ft	8-10 ft	8-10 ft	8~10 ft	8-10 ft	8-10 ft
	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
1,2,4-Trichlorobenzene	3400	U	U	l	U U	U	L CONTRACTOR
1,2-Dichlorobenzene		U	U	L		U	L
1,3-Dichlorobenzene	1600	U	U	L		U	L
1,4-Dichlorobenzene	8500	U	U	L		U	L
2,2'-oxybis(1-chloropropane) 2,4,5-Trichlorophenol	100	U	U U	L L		U	L
2,4,6-Trichlorophenol		U	U	L L		U	L L
2,4-Dichlorophenol	400	Ŭ	Ŭ	i.		Ŭ	L L
2,4-Dimethylphenol		U	U	L) U	Ū	ũ
2,4-Dinitrophenol	200 or MDL	U	U	l		U	L
2,4-Dinitrotoluene	1000	U	U	L		U	L
2,6 Dinitrotoluene 2-Chloronaphthalene	1000	U	U U	L L		U	ե
2-Chlorophenol	800	U	Ŭ	ι ί		U	u U
2-Methylnaphthalene	36400	Ŭ	ŭ	L L		U	U
2-Methylphenol	100 or MDL	U	Ŭ	U	J Ū	U	Ŭ
2-Nitroaniline	430 or MDL	υ	U	L		U	Ú
2-Nitrophenol 3,3'-Dichlorobenzidine	330 or MDL	UU	U	U U		U	U
3-Nitroaniline	500 or MDL	U	U	U		U U	U
4,6-Dinitro-2-methylphenol	JOO OF MIDE	Ű	Ŭ	U		U	U
4-Bromophenyl-phenylether		Ŭ	Ŭ	Ŭ		ŭ	Ŭ
4-Chloro-3-methylphenol	240 or MDL	U	Ú	U) U	Ŭ	Ũ
4- Chloroaniline	220 or MDL	U	U	U		U	U
4-Chlorophenyl-phenylether	000	U	U	U		U	U
4-Methylphenol 4-Nitroaniline	900	U U	U	U		U	U
4-Nitrophenol	100 or MDL	U	U	U		U U	U
Acenaphthene	50000	160 J	Ŭ	Ŭ		130 J	Ű
Acenaphthylene	41000	U	Ŭ	Ũ		Ű	Ŭ
Anthracene	50000	390	U	U		220 J	U
Benzo(a)anthracene	224 or MDL	1400	260 J	170 J		600	240 J
Benzo(a)pyrene Benzo(b)fluoranthene	61 or MDL 1100	1200 1500	230 J 390	160 J 230 J		400 560	170 J
Benzo(g,h,i)perviene	50000	640	140 J	230 J 78 J		180 J	260 J 100 J
Benzo(k)fluoranthene	1100	730	130 J	86 J		250 J	86 J
bis(2-Chloroethoxy)methane		U	U	U	U	U	U
bis(2-chloroethyl)ether		U	U	U		U	U
bis(2-ethylhexyl)phthalate Butyl benzyl phthlate	50000	130 J	230 J U	200 J ປ		110 J	U
Carbazole	50000	150 J		U	-	U 140 J	U
Chrysene	400	1400	230 J	180 J		450	200 J
Dibenz(a,h)anthracene	14 or MDL	210 J	Ű	Ű		73 J	200 U
Dibenzofuran	6200	U	U	U		U	U
Diethylphthlate	7100	1800	1700	2200	2100	2000	1200
Dimethylphthlate Di-n-butyl phthalate	2000 8100	U	U	U 140 J	U 100 J	340 U 94 J	U
Di-n-octyl phthate	50000	U	U	140 J U		94 J U	U
Fluoranthene	50000	3100	440	300 J	70 J	1200	390
Fluorene	50000	170 J	U	U	U	100 J	U
Hexachlorobenzene	410	U	U	U	-	U	U
Hexachlorobutadiene		U	.u	U	-	U	U
Hexachlorocyclopentadiene Hexachloroethane		UJ U	UJ	UJ U	1	UJ U	UJ
Indeno (1,2,3-cd)pyrene	3200	740	170 J	100 J	U	240 J	U 110 J
Isophorone	4400	υ	U U	100 U	4 1	240 J	U
Naphthalene	13000	Ŭ	Ū	Ũ	Ŭ	88 J	Ŭ
Nitrobenzene	200 or MDL	U	U	U	U	U	U
N-Nitroso-di-n-propylamine		U	U	U	U	U	U
N-Nitrosodiphenylamine Pentachlorophenol	1000 or MDL	U UU	U UU	U UJ	U UJ	U	U
Phenanthrene	50000	1800	340 J	170 J	U U	910 UJ	UJ 210 J
Phenol	30 or MDL	U	340 JI	170 3	U	910 U	210 J
Pyrene	50000	2500	420	300 J	72 J	830	370
Total 1): New York State Department of	500000	18020	4680	4314	2462	8915	3336

(1): New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046. U – Parameter was analyzed but was not detected.

J - Estimated value.

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TABLE 4.2.4 (continued). SOIL SAMPLING RESULTS FOR SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS)

	NYSDEC		
Parameter	Recommended Soil Cleanup	Q-8	Q-9
	Objective ⁽¹⁾	8-10 ft	8-10 ft
	(µg/kg)	(µg/kg)	(µg/kg)
1,2,4-Trichlorobenzene	3400	l i	
1,2-Dichlorobenzene	1000	L L	
1,3-Dichlorobenzene 1,4-Dichlorobenzene	1600 8500	1	
2,2'-oxybis(1-chloropropane)	0000	1 1	
2,4,5-Trichlorophenol	100	i i	_
2,4,6-Trichlorophenol		L	
2,4-Dichlorophenol	400		
2,4-Dimethylphenol 2,4-Dinitrophenol	200 or MDL	L	
2.4-Dinitrotoluene	200 01 1000		
2,6 Dinitrotoluene	1000		-
2-Chloronaphthalene		ι	
2-Chlorophenol	800	l u	
2-Methylnaphthalene 2-Methylphenol	36400 100 or MDL		
2-Metryphenol 2-Nitroaniline	430 or MDL		
2-Nitrophenol	330 or MDL		
3,3'-Dichlorobenzidine		Ĺ	Ū Ū
3-Nitroaniline	500 or MDL	Ļ	
4,6-Dinitro-2-methylphenol			
4-Bromophenyl-phenylether 4-Chloro-3-methylphenol	240 or MDL	L	
4- Chloroaniline	220 or MDL		
4-Chlorophenyl-phenylether		i u	
4-Methylphenol	900	U U	Ū
4-Nitroaniline		U	
4-Nitrophenol Acenaphthene	100 or MDL	U	1 71
Acenaphthylene	50000 41000		
Anthracene	50000	U U	· ·
Benzo(a)anthracene	224 or MDL	Ū	
Benzo(a)pyrene	61 or MDL	U	
Benzo(b)fluoranthene	1100		
Benzo(g,h,i)perylene Benzo(k)fluoranthene	50000 1100		1
bis(2-Chloroethoxy)methane	1.00	ι υ	· · · ·
bis(2-chloroethyl)ether		Ū	-
bis(2-ethylhexyl)phthalate		υ	93 J
Butyl benzyl phthlate	50000	U	-
Carbazole Chrysene	400		1 *1
Dibenz(a,h)anthracene	14 or MDL	l ü	
Dibenzofuran	6200	Ū	Ū
Diethylphthlate	7100	1400	1300
Dimethylphthlate	2000	U U	U
Di-n-butyl phthalate Di-n-octyl phthlate	8100 50000	U U	U U
Fluoranthene	50000	1 U	150 J
Fluorene	50000	l ŭ	
Hexachlorobenzene	410	U	Ú
Hexachlorobutadiene		U	U
Hexachlorocyclopentadiene		่ าก	JU
Hexachloroethane Indeno (1,2,3-cd)pyrene	3200	U U U	U U
Isophorone	4400	U U	U
Naphthalene	13000	Ŭ	Ŭ
Nitrobenzene	200 or MDL	U	U
N-Nitroso-di-n-propylamine		U U	U
N-Nitrosodiphenylamine Pentachlorophenol	1000 or MDL	U U	U JU
Phenanthrene	50000	U 10	100 J
Phenol	30 or MDL	Ŭ	U
Pyrene	50000	U	130 J
Total	500000	1400	1773
New York State Department of Control of C	Environmental Cor	convotion (NIVCD)	CON Technical Q. Adv

(1): New York State Department of Environmental Conservation (NYSDEC) Technical & Administrative Guidance Memorandum (TAGM) #4046. U – Parameter was analyzed but was not detected.

J - Estimated value.

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TABLE 4.3.1. SOIL VAPOR SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCS)

Decomotor	Samples Collected on 9-27-2005	R1		R1		R1	
Parameter	Ambient 9-27-2005	10-12 ft		28-30 ft		48-50 ft	
	(µg/m ³)	(µg/m ³)		(µg/m³)		(µg/m³)	
1,1,1-Trichloroethane	U		U		U		U
1,1,2,2-Tetrachloroethane	U U		U		U		U
1,1,2-Trichloroethane	U U		U		U		U
1,1-Dichloroethane	U		U		U		U
1,1-Dichloroethene	U		U		U		U
1,2,4-Trichlorobenzene	U		U		U		υ
1,2,4-Trimethylbenzene	U		U		U		υ
1,2-Dibromoethane	U		U		U		U
1,2-Dichlorobenzene	U		U		U		U
1,2-Dichloroethane	U		U		U		U
1,2-Dichloroethene (total)			U		U		U
1,2-Dichloropropane 1,2-Dichlorotetrafluoroethane			UU		U U		U U
1,3,5-Trimethylbenzene			U		U		Ų
1,3-Butadiene	l ül		ŭ		U		U
1,3-Dichlorobenzene			ŭ		U		U
1,4-Dichlorobenzene	U U		Ŭ		U		U
1,4-Dioxane	U U		Ŭ		Ŭ		Ŭ
2,2,4-Trimethylpentane	U		ŭ	2800	D	4200	D
2-Chlorotoluene	Ŭ		ŭ	2000	Ŭ	,200	υ
3-Chloropropene	l ŭl		ΰl		Ŭ		Ŭ
4-Ethyltoluene	Ū		Ŭ		Ŭ		ŭ
Acetone	Ŭ		ŭ		Ŭ		Ŭ
Benzene	Ū		Ū		Ū		ŭ
Bromodichloromethane	Ú		Ū		Ū		Ū
Bromoethene	Ū		Ū		Ū		Ū
Bromoform	U		U		U		Ŭ
Bromomethane	U		U		U		U
Carbon Disulfide	U		U		U	690	D
Carbon Tetrachloride	U U		U		U		U
Chlorobenzene	U U		U		U		U
Chloroethane	U		U		U		U
Chioroform	U		U		U		υ
Chloromethane	U		U		υ		υ
cis-1,2-Dichloroethene	U		U		U		U
cis-1,3-Dichloropropene	U		υ		U		U
Cyclohexane	U		U		U		U
Dibromochloromethane	U , U		U I		U		U
Dichlorodifluoromethane	3.1	590000	D	280000	D	44000	D
Ethylbenzene	<u> </u>		UU		U		U
Freon TF Hexachlorobutadiene			υl		U U		U
Isopropyl Alcohoi	U U		υ		U		U U
Methyl Butyl Ketone	U U		ŭ		Ŭ		Ŭ
Methyl Ethyl Ketone	Ŭ	26000	Ď		Ŭ	1700	Ď
Methyl Isobutyl Ketone	Ŭ	2.0000	ΰ		Ŭ	1700	ΰ
Methyl tert-Butyl Ether	Ŭ		ŭ		υŬ		Ŭ
Methylene Chloride	Ŭ		ŭΙ		Ŭ		Ŭ
n-Heptane	Ŭ		υl		Ŭ		Ŭ
n-Hexane	Ŭ	19000	Ď		Ŭ		Ŭ
Styrene	Ŭ		Ū		Ŭ		ŭ
tert-Butyl Alcohol	Ŭ		ŭ		Ŭ		Ŭ
Tetrachloroethene	Ŭ		Ŭ		Ŭ		Ŭ
Tetrahydrofuran	Ū		Ū		Ū		Ū
Toluene	Ú		Ú		Ú	490	D
trans-1,2-Dichloroethene	U U		U		U		U
trans-1,3-Dichloropropene	U U		U		Ú		Ú
Trichloroethene	U U		U		U		U
Trichlorofluoromethane	1.5		U		U		Ų
Vinyl Chloride	U		υ		U		U
Xylene (m,p)	Ú		U		U		U
Xylene (o)	U		U		U		υ
Xylene (total)	U U		υE		υl		U

 Xylene (total)
 U
 U

 E - Parameter detected above the upper calibration range limit.

 U - Parameter was analyzed but was not detected above the reporting limit.

 J - Estimated value.

TABLE 4.3.1 (continued). SOIL VAPOR SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCS)

	Complex		r				
Parameter	Samples Collected on 9-28-2005	R3	R3	R3	R6	R6	R6
f alameter	Ambient 9-28-2005	8-10 ft	28-30 ft	48-50 ft	8-10 ft	28-30 ft	48-50 ft
	(µg/m ³)	(µg/m³)	(µg/m ³)	(µg/m³)	(µg/m³)	(µg/m ³)	(µg/m ³)
1,1,1-Trichloroethane	U	U	U	Ų	U	U	
1,1,2,2-Tetrachloroethane	U	U	U	υ	U	U	L
1,1,2-Trichloroethane	U U	U	U	U	U	U	ί
1,1-Dichloroethane	U	U.	U	U	U	U	L
1,1-Dichloroethene	U U	U	U	U	U	U	l
1,2,4-Trichlorobenzene	U U	ປ	U	U	U	U	L
1,2,4-Trimethylbenzene	U	U	U	U	U	U	L
1,2-Dibromoethane	U U	U	U	U	U	U	Ĺ
1,2-Dichlorobenzene	U U	U	U	U	Ų	U	L
1,2-Dichloroethane	U U	U	U	U	U	U	ι
1,2-Dichloroethene (total)	U U	U	U	U	U	U	ե
1,2-Dichloropropane	U	υ	U	U	U	U	U
1,2-Dichlorotetrafluoroethane	U	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U
1,3-Butadiene	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U
1,4-Dioxane	U and	U	U	U	U	U	U
2,2,4-Trimethylpentane	0.98	1400	2800	3600	1300	2600	3900
2-Chlorotoluene		U	U	U	U	U	U
3-Chloropropene	U U	U	U	U	U	U	U
4-Ethyltoluene	U	U	U	U	U	U	U
Acetone	U	U	U	U	7600	3100	3100
Benzene	0.77	U	U	U	U	U	U
Bromodichloromethane	!!	U	U	U	U	U	U
Bromoethene Bromoform	!!	U	υ	U	U	U	U
Bromomethane	U U	U	U	U	U	U	U
Carbon Disulfide	0	U	U	U	U	U	U
Carbon Tetrachloride	U U	1500	4000	4400	3700	1400	1300
Chlorobenzene		U	U	U	U	U	U
Chloroethane	U U	U	U	U	U	U	U
Chloroform	U U	U U	U U	U U	U	U	U
Chloromethane	1.6	Ŭ	-	U		U	U
cis-1,2-Dichloroethene	U	Ű	U U	U U	U	U	U
cis-1,3-Dichloropropene	Ŭ	Ŭ	U	U U	UUU	U	U
Cyclohexane	U U	U	U	U	U U	U	U
Dibromochloromethane	Ŭ	Ŭ	U	U	U	U	180
Dichlorodifluoromethane	19	48000	190000	110000	64000	U 10000	U 28000
Ethylbenzene	U	U	U	U	U	110	28000 U
Freon TF	15	Ŭ	Ŭ	Ŭ	ŭ	U U	U
Hexachlorobutadiene	U	Ŭ	ŭ	ŭ	Ŭ	ŭ	Ŭ
Isopropyl Alcohol	Ū	9800 J	21000 J	17000 J	17000 J	6900 J	7100
Methyl Butyl Ketone	U	U	U	Ŭ	Ŭ	Ű	,U
Methyl Ethyl Ketone	U	830	6200	1800	1500	590	5900
Methyl Isobutyl Ketone	U	U	υl	U	U	U	U
Methyl tert-Butyl Ether	U	U	υ	Ú	Ŭ	Ŭ	Ŭ
Methylene Chloride	1.9	U	U	Ū	Ū	190 Ŭ	420
n-Heptane	U	U	U	U	U	U	U
n-Hexane	0.92	U	U	U	U	160	170
Styrene	U	U	U	U	U	100	U
tert-Butyl Alcohol	U	U	υj	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U
Tetrahydrofuran	U	U	U	U	U	U	U
Toluene	2.3	1100	2000	2000	2100	870	830
trans-1,2-Dichloroethene	u l	U	U	U	U	U	U
trans-1,3-Dichloropropene	U.	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U
Trichlorofluoromethane	4.2		U	U	U	U	U
Vinyl Chloride	<u>N</u>		U	U	U	υ	U
Xyléne (m,p) Xyléne (o)	U U	U	<u>U</u>	U	520	290	280
Xylene (o) Xylene (total)	U U	U U	U	UUU	U	91	U
					520	380	270

E – Parameter detected above the upper calibration range limit. U – Parameter was analyzed but was not detected above the reporting limit. J – Estimated value.

TABLE 4.4.1. GROUNDWATER SAMPLING RESULTS FOR PCBS

Parameter	NYSDEC Class GA Groundwater Standard ⁽¹⁾	CAMW-1	CAMW-2	CAMW-3	CAMW-4	CAMW-5
	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Aroclor 1016		1.0 U				
Aroclor 1221		2.0 U	2.0 U	2.0 U	2.0 U	2.0 Ú
Aroclor 1232		1.0 U				
Aroclor 1242		1.0 U				
Arocior 1248		1.0 U	1.0 U	1.0 U	1.0 U	1.0 Ŭ
Aroclor 1254		1.0 U				
Aroclor 1260		1.0 U	1.0 U	1.0 U	1.0 U	1.0 Ŭ
Total	0.09	U	U	U	U	U

 Total
 5.00

 (1) 6 NYCRR Part 703
 U

 U – Compound was analyzed for but not detected, i.e., less than the IDL.

 * Data for wells CAMW-1 through CAMW-4 reported from initial IRM field investigation.

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TABLE 4.4.2. GROUNDWATER SAMPLING RESULTS FOR METALS

Parameter	NYSDEC Class GA Groundwater Standard ⁽¹⁾	CAMW-1	CAMW-2	CAMW-3	CAMW-4	CAMW-5
	(µg/i)	(µg/l)	(μg/l)	(µg/l)	(µg/l)	(µg/l)
Mercury	0.7	0.10 U	0.10 L	0.10 U	0.10 U	0.10 (
Aluminum	2000 ⁽²⁾	74.6 BU	48.8 BL	56.8 BU	55.4 BU	350 JI
Antimony	3	3.3 U	3.3 L	3.3 U	3.3 U	2.1 (
Arsenic	25	5.6 U	5.6 L	5.6 U	5.6 U	1.7 l
Barium	1000	19.0 B	69.4 E	62.5 B	79.5 B	89.4 E
Beryllium		17.1 U	17.1 L	17.1 U	17.1 U	0.10 L
Calcium		15600	49200	95300	61400	18400
Cadmium	5	0.37 U	0.37 L	0.52 B	0.37 U	0.26 1
Chromium	50	4.5 BU	2.5 BL	2.8 BU	4.0 BU	0.70
Cobalt		1.1 U	4.5 E	1.1 U	3.8 B	4.3
Copper	200	2.1 B	0.98 L	2.3 B	1.4 B	1.6
Iron	300	76.9 BU	44.7 BL	59.1 BU	62.1 BU	299
Lead	25	1.2 U	1.2 U	1.2 U	1.2 U	1.3 L
Magnesium		1290 B	7880	5680	7620	4290 E
Manganese	300	12.7 B	16.3	11.3 B	77,1	152
Nickel	100	2.0 U	2.0 U	2.0 U	3.7 B	2.1
Potassium		10100 EJ	7280 EJ	8640 EJ	15400 EJ	3280
Selenium	10	5.4 U	5.4 U	5.4 U	5.4 U	2.0
Silver	50	3.6 U	3.6 U	3.6 U	3.6 U	0.60 L
Sodium	20000	30500	59800	105000	44200 E	44300 E
Thallium		5.0 U	5.0 U	5.0 U	5.0 U	1.7 L
Vanadium		5.4 U	5.4 U	5.4 U	5.4 U	1.3 L
Zinc	5000	18.2 BU	17.5 BU	51.1 U	54.1 U	8.8 E
	ma/l)	1.1 U	0.02 U	0.02 U	0.02 U	0.02 (
Chromium, hexavalent (10.0 U	10.0 U	10.0 U	10.0 U

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TABLE 4.4.3. GROUNDWATER SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCS)

Parameter	NYSDEC Class GA Groundwater Standard ⁽¹⁾	CAMW-1	CAMW-2	CAMW-3	CAMW-4	CAMW-5
	(µg/i)	(μg/l)	(µg/l)	(µg/i)	(µg/l)	(µg/l)
1,1,1 Trichloroethane	5.0	10 U	8 J	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5.0	10 U	10 U	10 U	10 U	10 U
1,1,2 Trichloroethane	1.0	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5.0	10 U	11	4 J	10 U	10 U
1,1-Dichioroethene	5.0	10 U	10	2 J	10 U	10 U
1,2-Dichloroethane	0.6	10 U	10 U	10 U	10 U	10 Ú
1,2-Dichloroethene	5.0	20	590	1400	32	10 U
1,2 Dichloropropane	1.0	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	10 U	10 U	10 U	10 U	10 Ū
4-Methyl-2-Pentanone		10 U	10 U	10 U	10 U	10 U
Acetone	50	10 U	10 U	10 U	10 U	10 U
Benzene	1.0	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50	10 U	10 U	10 U	10 U	10 U
Bromoform	50	10 U	10 U	10 U	10 Ú	10 UJ
Bromomethane	5.0	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide		10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5.0	10 U	10 U	10 U	10 U	10 Ú
Chlorobenzene	5.0	10 U	10 U	10 U	10 U	10 U
Chloroethane	5.0	10 U	10 U	10 U	10 U	10 Ŭ
Chloroform	7.0	1 J	10 U	2 J	1 J	10 U
Chloromethane		10 U	10 U	10 U	10 U	10 Ŭ
cis-1,3 Dichloropropene	0.4	10 U	10 U	10 U	10 Ŭ	10 U
Dibromochloromethane	50	10 U	10 U	10 U	10 U	10 Ŭ
Ethylbenzene	5.0	10 U	10 Ū	10 U	10 U	10 Ŭ
Methyl-t-butyl ether	5.0	10 U	10 Ú	10 Ŭ	10 U	10 Ŭ
Methylene chloride	5.0	10 U	10 U	10 U	10 Ŭ	10 U
Styrene	5.0	10 U	2 J	3 1	10 U	10 U
Tetrachloroethene	5.0	10 Ŭ	10 Ŭ	10 Ŭ	10 U	10 U
Toluene	5.0	10 U	10 U	10 Ŭ	10 Ŭ	10 U
trans-1,3 Dichloropropene	0.4	11	170	54	5 J	10 U
Trichloroethene	5.0	10 U	10 U	10 U	10 Ŭ	10 U
Vinyl chloride	2.0	10 U	10 Ŭ	10 U	10 U	10 U
Xylénes	5.0	10 U	8 J	10 U	10 U	10 U
Chlorodifluoromethane ⁽²⁾	5.0				200 J N	10 U

⁽¹⁾ 6 NYCRR Part 703.
 ⁽²⁾ Tentatively Identified Compound (TIC).
 D - Compound identified in an analysis at a secondary dilution factor.

J - Estimated value.

D - Indicates presumptive evidence of a TIC.
 U - Compound analyzed for but not detected.
 * Data for wells CAMW-1 through CAMW-4 reported from initial IRM field investigation.

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TABLE 4.4.4. GROUNDWATER SAMPLING RESULTS SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS)

Parameter	NYSDEC Class GA Groundwater Standard	CAMW-1	CAMW-2	CAMW-3	CAMW-4	CAMW-5
	(µg/l)	(µg/i)	(µg/l)	(µg/l)	(µg/l)	(µg/i)
1,2,4-Trichlorobenzene	5	10 U				
1,2-Dichlorobenzene	3	10 U				
1,3-Dichlorobenzene	3	10 U				
1,4-Dichlorobenzene	3	10 U				
2,2'-oxybis(1-chloropropane) 2,4,5-Trichlorophenol		10 U 25 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		25 U 10 U	25 U 10 U	25 U 10 U	25 U	25 U
2,4-Dichlorophenol	5	10 U	10 U	10 U 10 U	10 U 10 U	10 U 10 U
2,4-Dimethylphenol	50	10 U				
2,4-Dinitrophenol	10	25 U				
2,4-Dinitrotoluene	50	10 U	10 U	10 Ŭ	10 U	10 U
2,6 Dinitrotoluene	5	10 U				
2-Chloronaphthalene	10	10 U				
2-Chlorophenol		10 U				
2-Methylnaphthalene		10 U				
2-Methylphenol 2-Nitroaniline		10 U				
2-Nitroaniine 2-Nitrophenol	5	25 U 10 U	25 U	25 U	25 U	25 U
3,3'-Dichlorobenzidine	5	10 U				
3-Nitroaniline	5	25 U	10 U 25 U	10 U 25 U	10 U 25 U	10 U 25 U
4,6-Dinitro-2-methylphenol		25 U	25 U	25 U	25 U 25 U	25 U 25 U
4-Bromophenyl-phenylether		10 U	10 U	10 U	10 U	23 U 10 U
4-Chloro-3-methylphenol		10 U	10 U	10 U	10 U	10 U.
4- Chloroaniline	5	10 Ū	10 U	10 U	10 Ŭ	10 U
4-Chlorophenyl-phenylether		10 U	10 U	10 Ū	10 U	10 Ŭ
4-Methylphenol		10 U	10 U	10 U	10 U	10 Ū
4-Nitroaniline	5	25 U				
4-Nitrophenol		25 U				
Acenaphthene	20	10 U				
Acenaphthylene Anthracene	 50	10 U				
Benzo(a)anthracene	0.002	10 U 10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.002	10 U	10 U 10 U	10 U 10 U	10 U 10 U	10 U
Benzo(b)fluoranthene	0.002	10 U	10 U	10 U	10 U	10 U 10 U
Benzo(g,h,i)perylene		10 U	10 U	10 U	10 U	10 U 10 U
Benzo(k)fluoranthene	0.002	10 Ŭ	10 Ŭ	10 U	10 0	10 U
bis(2-Chloroethoxy)methane	5	10 U				
bis(2-chloroethyl)ether	5	10 U	10 Ú	10 U	10 U	10 U
bis(2-ethylhexyl)phthalate	5	10 U	10 U	10 U	10 U	10 Ū
Butyl benzyl phthlate	50	10 U				
Carbazole		10 U				
Chrysene	0.002	10 U				
Dibenz(a,h)anthracene Dibenzofuran		10 U 10 U	10 U 10 U	10 U	10 U	10 U
Diethylphthlate	50	10 U	10 U 10 U	10 U 10 U	10 U 10 U	10 U 10 U
Dimethylphthlate	50	10 U	10 U	10 U	10 U	10 U 10 U
Di-n-butyl phthalate		10 Ŭ	10 Ŭ	10 U	10 U	10 U
Di-n-octyl phthlate	50	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Fluoranthene	50	10 U	10 U	10 U	10 U	10 Ŭ
Fluorene	50	10 U				
Hexachlorobenzene	0.04	10 U				
Hexachlorobutadiene	0.5	10 U				
Hexachlorocyclopentadiene	5	10 U				
Hexachloroethane	5	10 U				
Indeno (1,2,3-cd)pyrene Isophorone	0.002 50	10 U 10 U	10 U	10 U	10 U	10 U
Naphthalene	10	10 U	10 U 10 U	10 U	10 U	10 U
Nitrobenzene	0.4	10 U	10 U	10 U 10 U	10 U 10 U	10 U
N-Nitroso-di-n-propylamine	50	10 U	10 U	10 U	10 U 10 U	10 U 10 U
N-Nitrosodiphenylamine	50	10 U				
Pentachlorophenol	5	25 U				
Phenanthrene	50	10 U				
Phenol	1.0	10 U	10 Ŭ	10 U	10 U	10 U
Pyrene	50	10 U	10 U	10 U	10 Ŭ	10 U

(1) 6 NYCRR Part 703.

U - Compound analyzed for but not detected. * Data for wells CAMW-1 through CAMW-4 reported from initial IRM field investigation.

Page 1 of 1

Table 5.1.1. QA/QC TRIP BLANK SAMPLING RESULTS FOR VOLATILE ORGANIC COMPOUNDS

1		· · · · ·	1	
Parameter	TB-47	TB-51	TB-52	TB-53
	(µg/L)	(µg/L)	(µg/L)	(µg/L)
1,1,1 Trichloroethane	U	U	U	U
1,1,2,2-Tetrachloroethane	Ŭ	Ŭ	l ŭ	Ŭ
1,1,2 Trichloroethane	Ŭ	Ŭ	l ŭ	Ŭ
1,1-Dichloroethane	Ŭ	Ŭ	Ŭ	Ŭ
1,1-Dichloroethene	Ŭ	Ŭ	Ŭ	Ŭ
1,2-Dichloroethane	Ŭ	Ŭ	Ŭ	Ű
1,2-Dichloroethene	Ŭ	Ŭ	U U	U U
1,2 Dichloropropane	Ŭ	U	U U	U U
2-Butanone	Ŭ	U	U U	U
2-Hexanone	U	U U	U U	U U
4-Methyl-2-Pentanone	U	Ŭ	U U	U U
Acetone	U	U	U U	U U
Benzene	U U	U	ט ו ע	U U
Bromodichloromethane	U	U	U U	U U
Bromoform	U	U	U U	
Bromomethane				U.
Carbon Disulfide	U	U U	U	U
Carbon Distincte Carbon Tetrachloride	U U		U	U
Chlorobenzene		U	U	U
	U	U	U	U
Chlorodifluoromethane Chloroethane	U	U	U	U.
	U	U	U	U
Chloroform	U	U	U	U
Chloromethane	U	U	U	U
cis-1,3 Dichloropropene	U	U	U	U
Dibromochloromethane	U	ບ	U	U
Dichlorodifluoromethane	U	U	U	U
Ethylbenzene	U	U	U	U
Methylene chloride	U	U	U	U
Styrene	U	U	U	U
Tetrachloroethene	U	U	U	U
Toluene	U	U	U	U
trans-1,3 Dichloropropene	U	U	U	U
Trichloroethene	U	U	U	U
Vinyl chloride	U	U	U	U
Xylenes	U	U	U	U
Total	<u>ບ</u>	U	U	U

⁽¹⁾ 6 NYCRR Part 703.

U - Compound analyzed for but not detected.

				Boring # I-13	NALA (44	ln.	T	
		XUP			MW#	Page 1	0	f 1
Į,	· · ·	A DESTING MADE		PROJECT: Bethp JOB # TOBY 0402	age Park, Co	nstruction A	Area	
		140 ·····	·····································					
			COLLAND AVIANT	LOGGED BY:		PRJ. MNG	BR.: [P	RL
5755.7	27 w. 127 ".".			DRILLING CONTR	ACTOR: Unive	ersal Testing	& Inspe	ction Service
	• Ri 🗄	· · · · · · · · · · · · · · · · · · ·	-I-13	DRILL METHOD: (Geoprobe			
····•		$\mathbb{H} \cong \underline{A}$		DRILLER:	*****	·····		
				Borehole diameter/o	drill bit type:	total dep	oth	10'
						elevatio	'n	
	1.162			HAMMER WT:	······································	DROP:	······································	
5			A State of the second	START TIME:	*******	DATE: 9/2:	2/05	······································
1. Sec.				COMPLETION TIM	E:	DATE: 9/2;		
- 933. - 933.	and and a second		-1°11	BACKFILL TIME:	***	DATE:		******
Sample	Advance	Recovered	Soil Desc			Casing dep	nth:	
Depth	(ft)	(ft)	Unified Soil Classi	fication System	Notes	Screen der	oth:	
0-4	4	3	Tan, sandy SW w/ cobbl	е	PID: 0.0			
4-8	4	4	Tan/brown SW		PID: 0.0			
8-10	4	4	Tan, sandy Sw w/ cobble	e, crushed rock	PID: 0.0			

		/////						And () is a first the state of
			να στά τη πολογιατία το διαδού η διάθες στη στη πολολη διά δια την μη τη ποτοπη τη στη απηρωτική τη δητη τη πο Το πολογιατί					
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							10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
					1994 - 1971 1971 - 1971 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1974 - 1			
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						an de general productive de la constant de la const		
				nandala ku dun yan Perset i Tu ku ku dun ku yang ng n	A 19 A MARINA MARINA MARINA MARINA MARINA DI LA CARA DA	**************************************		
1				99. 999 B. 1998 B. 1998 B. 1999	······	·····		
			******		4400 March 2 and Andrew and Angel & States, 24 (1), 20 March 1 and 20 million a	aran, wa makana da sha dana ka 'yay yang ara ya mana da Yu Antana d		
	eline and a second state production of the second states and a second state of the second states and a second s			99 - 1977 - 1989 - 1970 - 1				
							an Bandard Taland Ay An Jawa ayan yang sana sa ta ta	

e na se se

				Boring # I-14	MW#	Page 1	of 1
H2				PROJECT: Bethpa			
				JOB # TOBY 0402	ige Faik, CO	ISTRUCTION ATEA	
		Nine - 11.100	Substance	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
		Star Contraction	- set - A	\$~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
	and the second			DRILLING CONTRA		ersal Testing & Ins	pection Services
EM.		and the second second	-14	DRILL METHOD: G	eoprobe		
	i i i i i i i i i i i i i i i i i i i	<u> </u>		DRILLER:		1	
		1 N		Borehole diameter/d	irili bit type:	total depth	10'
	~					elevation	
41		1	and the second	HAMMER WT:		DROP:	
, ' 5		the second se	A A A A A A A A A A A A A A A A A A A	START TIME:		DATE: 9/23/05	
- 				COMPLETION TIM	Ξ:	DATE: 9/23/05	
 ∕≌₩	, XEE, www.		1	BACKFILL TIME:		DATE:	
Sample	Advance	Recovered	Soil Desc		T	Casing depth:	
Depth	(ft)	(ft)	Unified Soil Classi		Notes	Screen depth:	
		2	Tan, sandy Sw w/ cobble	a na an an an ann an an an an ann an an		S/MSD (0'-2')	
0-4	4	2	Tall, Salidy SW W CODDI	3			
4-8	4	4	Tan/brown SW		PID: O.O BI	D (4'-6')	
8-10	2'	1'6"	Tan, sandy Sw w/ cobble	e, crushed rock	PID: 0.0	, , , , , , , , , , , , , , , , , , ,	
	······		· · · · · · · · · · · · · · · · · · ·	+			
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	, nama 47-14-9-14						
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				Boring # J-11	MW#	Page 1	of 1
1-12				PROJECT: Bethp			
``	an i i i i i an a'			JOB # TOBY 0402		notice ton Area	
.		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	CHARLEN WARD	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
	Careta Careta			DRILLING CONTR.	*****		
na)	an an ann an			DRILL METHOD: (risar resung of n	ispection dervice
			J-11	DRILLER:	Seoprope		
*	1997 - 1997 1997 - 1997 1997 - 1997	ut et Ale		Borehole diameter/	drill bit type:	1	
					unin bit type.	total depth	10'
	er i i i i i i i i i i i i i i i i i i i					-1+ (1	
		1				elevation	
			es - 2-4-	HAMMER WT:		DROP:	
• \$		teres teres a	A Start March	START TIME:		DATE: 9/22/05	5
4 Pro.	<u>_</u>		and the second	COMPLETION TIM	E:	DATE: 9/22/05	5
~ 	With a start	•	ा <i>स</i>	BACKFILL TIME:		DATE:	
Sample	Advance	Recovered	Soil Desc	ription	Notes	Casing depth:	······································
Depth	(ft)	(ft)	Unified Soil Classi		notes	Screen depth:	
0-4	4	2'6"	Tan, sandy Sw w/ cobble	3	PID: 0.0		
4-8	4	3'	Tan/brown SW. Cobble,	wood	PID: 0.0		
8-10	2'	1'	Tan, sandy Sw	randa dalah da belanda da dekana dan denangan karana manan da danan dalah dalah dalah dalah dalah dalah dalah d	PID: 0.0		
				, y , v dage yn Manney yn Ywannwy yn y na tradainiau farai yn Ywysann a farainiau farai yn Ywysann a farainiau			nin A. A shaneyeyeye yang baha yang sakatang sakatang sakatang sakatang sakatang sakatang sakatang sakatang sa
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				*****		nn A grande a feile a feilig a	891
	ng mang mga ng mga ng kangan dinana kang dinana kan di ng mga						a a fa an a fa sha fa fa gangan mar gar ya ga da da sha na sha sha da
	στα τα τι τας το δύο για σταθούς του ματογή ματογή ματογή ματογή παιογή παιογή παιογή παια η που τη πολογή που		a de antenia desta a desente de antenia (a construir p _{er}), a construir por deste des antenia por deste de apoportante de apoportante de a	, , , , , , , , , , , , , , , , , , ,	·····		287 A 287
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				Boring # O-4	MW#	Page 1	of 1
		XUP	7 <u>-</u> - 7	PROJECT: Bethpa			
		1944		JOB # TOBY 0402		n'ann' ann an ann an ann ann an ann ann	
		يسير. محري المحقق	Section along	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
		• ₽ *		DRILLING CONTRA	CTOR: Unive		And the second s
size /	-			DRILL METHOD: 0			hat-al
			and the state of the second	DRILLER:	******	****	
				Borehole diameter/c	Irill bit type:	total depth	10'
	ي معنوب _{يا} ب مستعد ينظم	/ 0-4		2"		elevation	,
		1 / 1 /	A CARLES	HAMMER WT:		DROP:	la
• •		1	A State of March	START TIME:		DATE: 9/22/05	
	ana. Ana ang ang ang ang ang ang ang ang ang a	n an		COMPLETION TIM		DATE: 9/22/05	
	·	÷		BACKFILL TIME:		DATE:	
Sample Depth	Advance (ft)	Recovered (ft)	Soil Desc Unified Soil Classi		Notes	Casing depth: Screen depth:	
0-4	4'	4'	Refusal @ 2', moved 2' v		PID (0'-2'): 0	ar fri kal marka teri da kiri ya kira kala kala kultur. A 1 Adrian wang kala marka kala kala kala kala kala kala kala	
			0'-6" Top soil, grass, roo	ts	*** disting tables fact a second type, glab to good type page	мартуулаан тоо соорон какана на район була какала и какан тоо налаа.	
	ekunst fransetischingeblichtet werder fan in der falst		6"-1'9" Tan SW	anna a chuin a chuire bha ta fhann ann an ta chuire ann an ta chuirean ann an ta chuirean ann ann ann ann ann a	PID (2'-4'): 3	.4 BD	1990: MAAVatabati Kutabati Kut
			1'9"-1'10" Crushed rock				
10.01110.00000.00.02			1'10''-3' Brown SW		A.	10 1115 107-109 107-101 101 101 101 - 14 15-14 11-16 11-16 11-16 11-16	
				1999 - L'ANNO 1990 - MANDARA AND AND AND AND AND AND AND AND AND AN		er Manager Manager (* 1555), de seite Faktion Mahadematakan	
			Refusal @ 4', sampled u	ip to 4'			ability 11 (1) (1) (1) (1) (1) (1) (1) (1) (1)
1 1	18.31.4188.4131.41.5			Mat F (1999 To) and ida bio makaning any many many many magazi		ar Fill da ai Na ai Na Tha an I ann an guna an gungang paga ago a gungag	19 ko 419 kok (). Zal an Zhan - on odenogrammaria
	an ang ang ang ang ang ang ang ang ang a					a comunication de secondaria de secondaria de secondaria de secondaria de secondaria de secondaria de secondari	
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		en ar		ar 11 an da 14 Table and a san a regime and particular correct			1994 MIN 1994 MAR AND A MARK A MAR
5.9% M	nge ong tana mana ataka aka ta ana ta bara ta banaga sa			alla fan de art y annan ger annel y fa fyn af myr annen y fan ywyng y		ال ما ها المراجع الم	1915-1964 Madada Handahad Jahug Aggabang garang yang sa
	glandel oor ballande van stat of tee t					1 d 1 d 1 - Vale - and A Madria (g) age y by spy g y pargeau ann a	
	*** I ·····	ar - 1 191 - 1 191 - 1199 - 11 91 - 1191		namen omde Skepan verste for i en det Skepannen førset for de	· · · · · · · · · · · · · · · · · · ·		19 1 maar aan dha fiis amaa aha iyo yo y
	1941 - 1415 - 1455 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 - 1475 -			19 - yan dan 1 fildar olaf Mandyna Naman ar on oo yaar ayaa yayaa		ha - haana kaanaa a daadaadaa ahaa adaga ayyyy kaasa,	
			5 	(×
	kan Salahan na Salahan	1 . In	, maan oo yaa aa	and Partine Transmission and a statement and a statement and a statement	1	911 7-963 (MIRING ALL) (MIRING A DE COMPANY) (MIRING A DE COMPANY)	
		ana kalan kalan akka a alimahata f			1 and 11 at 2111. 217.		Nakolas V., and F. et Badli et a gran and et an and
) 	alanan kudu i yart shari danan ying taga kutu				1		

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				Boring # O-9	MW#	Page 1	of 1
				PROJECT: Bethr	ARE STREET AND A CONTRACT OF A DESCRIPTION OF A	nstruction Area	
	the second second	19-18. cm	and the second sec	JOB # TOBY 0402	****		
-		میکند : مرکز از مسلم :	Class wines	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
	and the second s			DRILLING CONTR		ersal Testing & In	spection Service
see/			12. 11 1. 1	DRILL METHOD:	GEOPROBE		
1			A STATE AND A STAT	DRILLER:	na na fanilarana panaarafing fishirin Africanski fa fishira a fa	***	*****
				Borehole diameter/	drill bit type:	total depth	10'
				2"		elevation	
	11 m		-0-9 ×	HAMMER WT:		DROP:	
		<u>),</u> t		START TIME:		DATE: 9/22/05	
	and the second sec			COMPLETION TIN	1E:	DATE: 9/22/05	n ndal ser yake yayang tahupatén yak dahilak sa katabala kenyananan dipad
	`****		104/	BACKFILL TIME:		DATE:	مەر يەر بەر بەر بەر بەر بەر بەر بەر بەر بەر ب
Sample	Advance	Recovered	Soil Desc		K 2 - 2	Casing depth:	
Depth	(ft)	(ft)	Unified Soil Classi		Notes	Screen depth:	
0-4	4'	3'	0'-6" Top Soil		PID (0'-2'): ().0	معارضه والمعارفة والم
		n the second	6"-2'6" Tan, Sandy SW			N-14 AREAN INTERNET AND AN AND AND AND AND AND AND AND AND	
			2'6"-3' Black SW	affabbar men t medig at analysis a production b Topp Appy a province.	PID (2'-4') :	73.6	
4-8	4'	2'6"	4'-5' Tan SW w/ cobble		PID (4'-6'): 1	10.1	
	ann fan y Manhal Nykkens Ia ay a nify a blan yn 11 ha	yana yan ang ka se pala na maya na pang pang tang pan	5'-6' Brown SW w/ cobb	le			
		-	6'-6'6" Brown SW w/ cot	oble, wood, debris	PID (6'-8') :	11.1	an a damin and the log and an a data and a data and a data
8-10	2'	0'	Refusal @ 8'	ek kestikat ta a ta aan aan kun ta ta kata a ta aan aan aan aan aan aan aan aan			
				1999 11912 - 1129 1191 1192 1193 1196 1196 1196 1196 1296 1296 1296 1296		and a que month of a ray to compare the state of a large to the state of the stat	akana fata kara - ana faka kak haka na fata a a a a a a da a bar mana da ma
		. 1.990				ANNING 11, 11, 11, 11, 11, 11, 11, 11, 11, 11	
							1
	1.1			tala ka dati sa asawa sa cata asawa taka ya cany ya asaway ya Tay ya ya			
	NUMBER 11 - 11 - 11 - 11 - 11 - 11 - 11 - 11			PPENDEZ E LV 2019 ST MET «THETA KAT ONDER 2. Forstel & Arbeiter Ande		nda u teles a a de marta k a colesa k tenenara i tenes fu facembri Hitaba	11 M M 4 M 4 K 1 = - 11 1 M 10 M 10 M 10 M 10 M 10 M 10 M
	NAMES AND TO NAME & PROTOCOLOGICAL			s s - 11 m gall as 1 a shi a fan a m talaf agus fan 1 anis gun amg maras a gal ananan		unad for a final forma i final alemanta da antica fina final final final final da antica da antica da antica d	Meriadological de la constanti
		11 1		1894/2 kSh. Ak sati shi shi shi shi shi shi shi shi shi sh		understand gegenere and general state and general general states and	ana ay say ay an and an a ta an a ta an a ta a a ta an a
							n, anala ana ana a anna an ang ang ang ang ang
				naar e di faafinaa in soonaar de soor faafaaf fan aanaf waar aanad to ar diada si saad	, un j	more a maneter of a solution constraints of the solution of the biometry of the biometry of the biometry of the	
	1010,00000 00.00000000000000000000000000			1919 11999 1971 11994 1 ANK SAMA 1394 1 A ANA ANG ANG ANG ANG ANG		Statistical for a developed for state of a fille for state of the stat	1
				9449949999999474554954964411094112949449944111092999 11			1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -

				Boring # P-4	MW#	Page 1	of 1
	MG	SOUP	7 + Y	PROJECT: Bethp		ويهدد يحدد ودد مجرده فالخاص فقر وغريق يشرده الأساء ساويان يوديه يخدف مارسها	
<u>`````````````````````````````````````</u>		/ 3795 . ag		JOB # TOBY 0402	44.V.F. 19. Martin 19	11 Yanda da manzar yanda da na ka mbalaka Yanada ili da da wa 1	
		Store .	Caller Avisor	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
	mm The second		The second s	DRILLING CONTR/	ACTOR: Unive	rsal Testing & Insp	pection Services
eu.?	100 101			DRILL METHOD: (GEOPROBE		
			Are so a second and	DRILLER:			
، ا. 				Borehole diameter/d	drill bit type:	total depth	10'
	an the second			2"		elevation	
	N , A	/P-4		HAMMER WT:		DROP:	
	.40742.			START TIME:		DATE: 9/21/05	
	**************************************			COMPLETION TIM	E:	DATE: 9/22/05	
- 1978.	, <u>Alian</u> i muw	•	21 ⁴ 9	BACKFILL TIME:		DATE:	
Sample Depth	Advance (ft)	Recovered (ft)	Soil Desc Unified Soil Class		Notes	Casing depth: Screen depth:	
0-4	4'	3'6"	0'-6" Grass, roots, Top s	soil	PID (0'-2'): 0	.0	
			6"-1'6" Tan SW	2010-1-210-1-1-000-1-1-000-1-1-1-1-1-1-1	garay artar 1		
ere stan managementen e Armanikaria ent	af faike a Shifaiki 1 Jakif kus 1 di si sasili 1 ku kili s ^a 11 V		1'6"-3'6" Brown SW w/ c	cobble	PID (2'-4') :0	.0	
4-8	4'	4'	4'-7'6" Tan sandy SW		PID (4'-6'): 0	.0	a na da
			7'6"-8' Black Clay	444-34-444 (11-11-11-11-11-11-11-11-11-11-11-11-11-		Tall SK MF ELMPTONS AT M ANNOLIS AND AT 1	
	n ng ng ung ung tan paganagant akting tan tan tan tan ta		Refusal @ 8', completed	1 on 9/22/05	PID (6'-8') : 0).0	1016 1102 1. ALMAN CONTRACT 1. C. I. C. MARKET I
			Point moved 8' west	14 14 al			
8-10	2'	2'	8'-9' Tan, sandy SW		PID (8'-10'):	0.0	
	Mark 400-70 PC 804 F177 - MCMC19907 - 1110		9'-10' Tan ciay w/ low pl	asticity			NOTI THE STATE AND A STATE
				ad daaraa ka da waxaa ahaa ka ahaa ka ahaa ka ahaa ka da ahaa ka da ahaa ka da ahaa ka da ahaa aha		" A Albahar sahada bahada a sa da Albanda din gahada na da asa a	a a a su byenn i den an an d'annan a an a d'ange, adar
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	ar an an Sandar ga dan shi kara a sa santanan ba'a Mari karatan da shina Yana an sa shina ta sa sa sa	<u> </u>		ana an ing tau ang taung ang ta Taung ang taung ang ta			

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				Boring # P-9	MW#	Page 1	of 1
				PROJECT: Bethpa	age Park, Co	nstruction Area	
	×	THE OF	an a	JOB # TOBY 0402			
		ويعجب بمستقد	Corn wires	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
	يسريند ريوري ¹ در در مريو		523); N	DRILLING CONTRA		ersal Testing & Ins	spection Service
sia7	e{[][ang	The Way	DRILL METHOD: G	EOPROBE		
			ALL STREET	DRILLER:			••••••••••••••••••••••••••••••••••••••
	J - 1 -			Borehole diameter/c	Irill bit type:	total depth	10'
				2"	anih sinin asarangi na dikini na daradimenonindi. Ndorshi na	elevation	
•	s. 72		- P.9	HAMMER WT: START TIME:		DROP:	
	Friday, .	Eine,				DATE: 9/21/05	
- -				COMPLETION TIM	Ξ:	DATE: 9/21/05	
, SER.	·High, and		-02 [/]	BACKFILL TIME:		DATE:	
Sample Depth	Advance (ft)	Recovered (ft)	Soil Desc Unified Soil Classi		Notes	Casing depth: Screen depth:	
0-4	4'	-	Refusal, moved point 6"	to side	PID (0'-2'): (0.0	
0-4	4'	2*6*'	0'-6" Top soil			NIN MINE & 1 (1) 1 - 1 (1)	n ngangan ngana ang ang ang ang ang ang
		a a constant a co	6"-2'6" Tan SW w/ cobb	le	PID (2'-4') :(0.0	
4-8	4'	2'	4'-5'6" Tan SW w/ cobbl		PID (4'-6'): (0.0	• • Finite - Requestioned calculater * • • • • • • • • • • • • • • • • • •
	ومتجوب ويعار وموافق والعالية والعالية المراجعة		5'6"-6' Brown SM w/ cot color	ble, areas of copper			prominent paging a second a barrant barrant barbar a si a ba
	16.15.110.11.111.111.111.111.111.111.111.1		n delset galetal d'Alamana senses ter l'ingelte syste a lagarda, a s ≈ 1 a assess a		PID (6'-8') :	0.0	
8-10	2'	2'	8'-10' Tan, sandy SW		PID (8'-10'):	0.0	1 - 2011, MINOR - MAINTANI - ANDRES
			n e k an that a cash laty anana da ta c an a bhag ha anna a by gay ananan			1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	
				189 - Y - Y - Y - Y - Y - Y - Y - Y - Y -			
				of 11 million and the state of			
1, y			a faksu ferman munitud kanada Marida atam tan 16 ta sa tahun 17 ta sa t			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
	al an 11 anna 21 anna 21 an 12 an		n men fieldel de medelse de med ten en die en menne figetiet e menne ten en en et alson de	an a sha f da a a a an an an an dan yan San an a			14, 2
	1991 p. paga 1997 mana ang kanalan da sa	and a second sec		tallation of a task a formulation of further in battacher which			
				The considerable consideration of the stand decomposition of a spectra constraints of			
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] 		áfta a fa san fannan an an faith a fafta fa bhann a s a á fanna á	-		1443-2444-848-1140-1140-1140-214-214-214
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1 111	b b d			Boring # Q-4	MW#	Page 1	of 1
		CUP	• • • • • •	PROJECT: Beth	page Park, Co		
		/FE	A CONTRACT OF CONTRACT	JOB # TOBY 040			
		iter and	Constanting and an and	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
	1			DRILLING CONTR	RACTOR: Univ	ersal Testing & Ins	pection Service
sm7				DRILL METHOD:	GEOPROBE		
	, 1934		The state of the s	DRILLER:			
				Borehole diameter	/drill bit type:	total depth	10'
				2"	1991 with and transitionary for still a transition to the	elevation	
		-0-4	A A A A	HAMMER WT:		DROP:	
. 5		A Martine La	4 C	START TIME:		DATE: 9/21/05	
				COMPLETION TH	ME:	DATE: 9/21/05	
- 1878.			15.50	BACKFILL TIME:		DATE:	
Sample	Advance	Recovered	Soil Des		Notes	Casing depth:	
Depth	(ft)	(ft)	Unified Soil Class	ification System		Screen depth:	
0-4	4'	4'	0'-1' Top soil, roots, gra	SS	PID (0'-2'):	0.0	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
	aliya la Martin aras ta Martin Martin		1'-4' Brown SWw/ cobbl	e, crushed rock			
					PID (2'-4') :	0.0	
4-8	4'	1'6"	4'-5'6" Brown SW w/ co unknown green substan		PID (4'-6'):	0.0	
	112010-1110-101 001000000000000000000000			ly a constant y color y constant y and assume to the balance spectrum to	PID (6'-8') :	0.0	a defensive way and a qualification of a standard of a standard of doing of a
	ang gan gan gan gan gan gan gan gan gan						1911-1911-1911-1911-1911-1911-1911-191
8-10	2'	2'	8'-9' Brown SM		PID (8'-10')	: 0.0	
	geno on hear of the add to be did did did and		9'-10' Tan, sandy SW w	/ cobble		- una a strato a como a posto ana fasto de secono secono secon a faco	
	nyenyepinatow of all the Wiley built			1		alland y yang oo nay ay H kao oo par, a yaa qaang ay ay ac ar a ah y	a understand of evening frameworks of a scalar scalar statement of advances of
						anta far ay an ta y fay any ay ay ta yan ay ay ta ya	······································
			a sanah A haffaan ladud a sa aa ladaan aa aa sa haa daa daa ahaa ahaa ahaa aha	1	1004 K		
				anna contricto de calanadan dana qui a for con concerno than de	skod 4	hick for a summer to get the state of the sum	d de mane e colon e ma d'anne la Annel el d'anna las y 1 y el tro
	1 -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-						
191 p maar mys one and takets, to 1	Next, Latter Part 197 (1994), Day	, yey ya a sa a sa a sa a sa a sa a sa a					
		1 ma		and dan territor of a state of the Antoine Antoine Antoine Antoine Antoine Antoine Antoine Antoine Antoine Antoi		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	• Famou Valences (1976).
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				Boring # Q-5	MW#	Page 1	of 1
			+	PROJECT: Beth	page Park, Co	nstruction Area	
	ANK CONTRACT	2874 and 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JOB # TOBY 040	2	ning a sea an a fair gang a la bhaile ann an thairt a dhaile a dhaile a bhaile ann an thairt an thairt an dhain	
	-(میرونی مرکز ا	City Ma Allana	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
····	-FTN,	6.		DRILLING CONTR	RACTOR: Unive	ersal Testing & Insp	pection Service
592. ⁷				DRILL METHOD:			
			North Martin Martin	DRILLER:		na dalam tanya na manang na manang na manang na dalam si na panang katalan na sa	
		· · · · · · · · · · · · · · · · · · ·		Borehole diameter	r/drill bit type:	total depth	10'
	n an			2"		elevation	n 1. an fair an an Air ann an Air ann a' fair ann an Air ann an Air ann an Air an Air an Air a' Air a' Air a' A
S		, — Q-5		HAMMER WT:	****	DROP:	
			and the second second	START TIME:		DATE: 9/21/05	
3 1995			and the second se	COMPLETION TI	ME:	DATE: 9/21/05	alı yerden azərbaycan karalır. Attaları kara kara başı tarər
/ 1926.		· ø. · · ·		BACKFILL TIME:		DATE:	999 - 1-990 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 1
Sample	Advance	Recovered	Soil Desc			Casing depth:	******
Depth	(ft)	(ft)	Unified Soil Class	ification System	Notes	Screen depth:	
0-4	4'	3'6"	0'-6" Top soil, roots		PID (0'-2'): 0).0	
			6"-3'6" Brown SM, w/ fin	ie cobble			
	gyger grappen and an and a single day such as here				PID (2'-4') :0	0.0	
4-8	4'	3'	4'-7' Tan SW w/ cobble	nan ya kulada a ku dua ka ata a ku a ku a ku a ku a ku a ku	PID (4'-6'): ().0	
	ana gheod e e a dalaidhead No A THURNAN A UN						
				1999 () 499 (PID (6'-8') :	0.0	alaa halaa ah iyo ah iyo ah
				wa para yang ana ang anang ang ang ang ang ang an		NTT	
8-10	2'	<u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u>	8'-9' Brown SM	Andreadaytations atolianse kasses atticketistetet	PID (8'-10'):	0.0	
14-11-14-16-16-16-16-16-16-16-16-16-16-16-16-16-	y a alamay layon fakar too oo aafa ka ta'w		and a specific course of the second state is the second state of the second state and the second state of	• • • • • • • • • • • • • • • • • • •		L L L L L L L L L L L L L L L L L L L	
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						na djenen utilizina en forda dan til talgendiktet kated dør d	
				n i stato fu nimi stato da fu i stranda i kontranskom da forma i handi i stato	ang ng pang ang ang ang ang ang ang ang ang ang	ggangeliongana anana akang ad JC ke andri taraha andri di ada Dekatarah m	na na ang ang ang ang ang ang ang ang an
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			PROJECT: Bethy JOB # TOBY 040: LOGGED BY: DRILLING CONTR DRILL METHOD:	2 EVT	PRJ. MNGR.: F	2 RL
			LOGGED BY: DRILLING CONTR	EVT		'RI
			DRILLING CONTR			R۱
			DRILLING CONTR	ACTOR: Unive		• • -
					rsal Testing & Inspe	ection Servic
		The state of the s		GEOPROBE		ну, ц. (),
			DRILLER:			gan bayang garan bagang antara bagan gana ang kang kang kang kang kang k
			Borehole diameter	/drill bit type:	total depth	10'
48 A	······		2"		elevation	
14.5			HAMMER WT:		DROP:	
- 3 <u>-</u>	Line and V	Q-6	START TIME:		DATE: 9/21/05	
a in the second s			COMPLETION TIM	ле:	DATE: 9/21/05	
- 1972Z.	**************************************	and the second se	BACKFILL TIME:		DATE:	2000.000 IL. 1011010.00000000000000000000000000000
Sample Advance	e Recovered	Soil Desc			Casing depth:	
Depth (ft)	(ft)	Unified Soil Class	ification System	Notes	Screen depth:	
0-4 4'	3'6"	0'-6" Top soil w/ roots		PID (0'-2'): 0	0.0 BD	
		6"-3'6" Brown SP w/ fine	e cobble		وروبا ورست موسان ورست المراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع	
				PID (2'-4') :0	9.0	
4-8 4'	3'	4'-7' Tan, sandy SW w/	cobble	PID (4'-6'): 0).0	
				nge i fa gund i varaat aster Markolakite te etket	سه و مرکز میکرد. میکرد میکرد میکرد میکرد و میکرد. میکرد و میکر میکرد و میکرد و میکرد و میکرد و	
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			anna () a gungay anna a sè da Bandele, Ye 1960 (1978) (1978)			
8-10 2'	2'	8'-10' Brown SM w/ cobl	ble	PID (8'-10'):	0.0 MS/MSD	
21 - 1		er a sense e se interestadore en estadore e se estadore		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	natartagende kannan av til styrnandet i det star av er sed av etter til st	ala dala mangangka kana kana kana kana kana kana k
			r samaturata ettert 1. aller a somme fragmagta englis pytotagang at syndrodd		adi sa tama da'a di Antonia da tampé faranan amin'ny a Antonia di	
	Labor 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100		ar op je op en senar op som en state op som en state op som en state op som en som en som en som en som en som			
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		ng aya turunna turunna turun aya turun ay	ayyya, laga amarana a a a a a a a a a a a a a a a a a	1	alan fan fernan a land A def fan ferderige ôf, yn de o gan a sammer fer	a far na felfanlær ef erfansk keltanlær e en erf i fattan
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al the shortport ware ware a se	ana ay ny masana ang ang ang ang ang ang ang ang ang	la 11 - 11 - 11 - 11 - 11 - 11 - 11 - 11	1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9		g sugar an takan ngaranna an ta Jama Akrana and tah	a ann an an tha tha an tha tha tha an tha

1833 1 - 3				Boring # Q-7	MW#	Page 1 c	of 1
		CUP		PROJECT: Bethp	age Park, Co	nstruction Area	
		1992	and the second sec	JOB # TOBY 0402	}		
			STREAM AWAYS	LOGGED BY:	EVT	PRJ. MNGR.:	PRL
	Contra De C	\$*		DRILLING CONTR	ACTOR: Unive	ersal Testing & Insp	ection Service
1925. /				DRILL METHOD: (GEOPROBE	an a	
 1í,	[]]		and the second	DRILLER:		айын са даагыл алдын айн байланын тарасан жанан калан таралан алан алан алан алан алан алан ала	
				Borehole diameter/	drill bit type:	total depth	10'
	nen ser en s Norme en ser e			2"		elevation	an a
e ***				HAMMER WT:	had a special set for the statement of free set of a property of	DROP:	
			Q-7	START TIME:		DATE: 9/21/05	
۽ ۽ سين				COMPLETION TIME: BACKFILL TIME:		DATE: 9/21/05	1999,999 a 2999 a prime prime de la cale da Ca
 ∕≅₩.			4 · · · · · · · · · · · · · · · · · · ·			DATE:	
Sample	Advance	Recovered	Soil Desc		Natas	Casing depth:	
Depth	(ft)	(ft)	Unified Soil Classi		Notes	Screen depth:	
0-4	4'	3'	0'-2'6" Brown Top soil, S	SW w/ cobble	PID (0'-2'): (0.0	
			2'6"-3' Crushed rock				
					PID (2'-4') :(0.0	
4-8	4'	3'	4'-7' Tan, sandy SW w/	cobble	PID (4'-6'): (0.0	
				•			
	anden van van dittertekstert Media/Atelistert		a som dannagaga kon adars av asska gen kad det a konstant ad skranga da	t haded	PID (6'-8') :	0.0	
~ 10		~					
8-10	2'	2'	8'-10' Brown SM w/ cobl		PID (8'-10'):	: 0.0	
	1. 19.11 (19.11)	, sakasi dan mu afal Annadakkak 16.1 A.F. ké t		1949 (1941 - F. 1959), 1951 (1959), 1957 (1959), 1957 (1959), 1957 (1959), 1957 (1959), 1957 (1959), 1957 (195	1911 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Angatakanan sa ana anang ng mya ya dara adalah Kantakaka na kata	
				ana ang paga paga ang mang mga ng			
				AND THE COLORS AND		EIRANWARIANIPII I I I I I I I I I I I I I I I I I	- (, da ya may ya ku da ma ya ma ') , ', ', ' - b) ' a ' ', '
	anna 1944 anna 1944 an Gulf an Farlann - Farl an F		n y e kale denga con y e ny e nev bela danaraké danananana sa Arre a con a con a con a consecta na man da	n men synskelsen i refolder og Vick i verket for trefsen i Vicken i Vissel og for trefse for i og	in - n ef Ossistiationska 1: - et Ossistiationiat	инала сторо организация и наласталитали слове у слова и	
	manana ang ang ang ang ang ang ang ang an						
		The second	a de a fra de analística de financia e a consecuencia de a financia de de	under solder and the sold of t			999 (African) , marking and an
			n - 1101abrat, Fat MPERIOLATORIANIME * 11611 or 21*1*10*1* *	манат, и пр. маниматичная алемотоски ченьма			1
	aan a baarada a ta da an ta 11 da aa da 16 ka a 19				1	• kan mekat	
			1 1 - 1995 Maria 15,757 Million Maria - 1914 Maria - 1979 Million - 1979 Million - 1979	a alam Mandala Parandalan Matsan Katana a Matsan a samanan Sadan a sa			
				1999-1999 - 1997-1999-1999-1999-1999-199			

				Boring # Q-8	MW#	Page 1	of 1	
		SOUP	· · · · ·	PROJECT: Beth	***************************************	. "	والمراجع وجواري والمحافظ والمنابعة والمنابعة والمنابعة والمتحافظ والمحافظ والمحافظ والمحافظ والمحافظة	
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		سند. مشرق المسقد	Site All All	LOGGED BY:	EVT	PRJ. MNGR.:	PRL	
	have above			DRILLING CONTI	RACTOR: Univ	ersal Testing & Ir	spection Service	
EST.				DRILL METHOD:	GEOPROBE			
R	10		North Contraction	DRILLER:				
				Borehole diameter	r/drill bit type:	total depth	10'	
	Sector production of the sector of the secto			2"		elevation	frankliste som av fra fallen sin som franklister av franklister fra forskalle for som av forskalle for som av f	
8				HAMMER WT:	4+4+45(4+10+4444).	DROP:	t ant an Arthur Bartha Barta by Albaria by Albaria by Llancardon, Albartan beinebar Art	
			Q-8	START TIME:		DATE: 9/21/05	5	
		-7		COMPLETION TI	ME:			
/ U;EX	1 100 100 areas	•	-10.00	BACKFILL TIME:		DATE:		
Sample	Advance	Recovered	Soil Desc		Notes	Casing depth:		
Depth	(ft)	(ft)	Unified Soil Class	ification System		Screen depth:		
0-4	4'	3'6"	0'-3' Top soil, SM		PID (0'-2'):	0.0 BD	·····	
			3'-3'6" Rock		17 22 BURN VILLE VILLE - DO - D		THE STOCKS IN THE STOCKS AND	
					PID (2'-4') :	0.0		
4-8	4'	2'	4'-6' Dark brown SM w/	cobble	PID (4'-6'):	0.0		
					PID (6'-8') :	0.0		
8-10	2'	2'	8'-10' Tan, sandy SW	. Saman nga Mgagyan aktor a na na anal na na ang kana kana kana kana kana ka	PID (8'-10')	0.0	taanat baada tee aada bat gaat aan agaaraay yagagaaraan gaa	
0.10				an a an				
	Amila 1 40 - 2001 - 21 Anno 74 - 2 - 21 Anno 14 ma			NE 1998 PARAMETER (1999) (1997) (1997) (1999) (1997) (1997) (1997) (1997)	v veteraturi e a nev a ser a constructione production e devia		чтат о прозната и каколи -= « Гаранал I санито»	
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H2MGROUP			PROJECT: Beth	page Park, Co	nstruction Area			
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∕ ≌≣£.	A -1	6	CallDead	BACKFILL TIME:				
Sample Depth	Advance (ft)	Recovered (ft)	Soil Desc Unified Soil Class		Notes	Casing depth: Screen depth:	- "	
0-4	4'	3'	0'-6" Top soil	PID (0'-2'):	PID (0'-2'): 0.0			
			6"-2'6" Brown SM					
			2'6"-3' Crushe rock		PID (2'-4') :	0.0		
4-8	4'	2'6"	4'-6'6" Tan, sandy SW v	PID (4'-6'): 0.0				
	an di tra district de la State d'An come cape l'annage pro-	an o London o a statistic factor 1. Bathad ador 1. P	a se a segurar a mana a ser a su a s	engel (versegel (perse = = ===============================	PID (6'-8') :	0.0		
8-10	2'	2'	8'-10' Tan, sandy SW w	/ cobhle	PID (8'-10')	: 0.0 MS/MSD		
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••	······································		Dauer Alicer	LOGGED BY:	CJF	PRJ. MNGR.:	PRL	
······				DRILLING CONTRA	CTOR: Univer	rsal Testing & In	spection Service	
IN IST				DRILL METHOD: Hollow Stem Auger				
				DRILLER:				
				Borehole diameter/d	rill bit type:	total depth	60'	
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2	~ *	1		HAMMER WT:	*****	DROP:		
				START TIME:		DATE: 9/23/05	n n fach m de a son der erenne Wirmen fakt i befanse fer a	
				COMPLETION TIME		DATE:		
	24992, wree		An	BACKFILL TIME:		DATE:		
Sample	Advance	Recovered	Soil Desc	1		Casing depth:		
Depth	(ft)	(ft)	Unified Soil Classi		Notes	Screen depth:		
0-2	2'	2'	Coarse ro gravelly sands	5	PID (0'-2'): 0.0			
2-4	2'	2'	Medium sands		PID (2'-4'): 0	.0		
4-6	2'	2'	Medium to coarse sands		PID (4'-6'): 0	.0		
6-8	2'	2'	Refusal, boring terminate coarse	ed, mostly medium to	PID (6'-8'): 0).0 BD		
8-10	2'	2'	Mostly medium to coarse	e	PID (8'-10'):	0.0.		
18-20	2'	2'	Mostly medium to coarse	e sands, some gravel	PID(18'-20'):	0.0		
28'-30'	2'	14"	Medium to coarse sands	S. Some gravel.	PID (28'-30')	: 0.0		
38-40	2'	20"	Medium to coarse sands	s. Some gravel.	PID (38'-40')	: 0.1		
48'-50'	2'	2'	Medium to coarse sands	s. Some gravel.	PID (48'-50')	: 0.0		
58'-60'	2'	2'	Mostly fine sands. Wet at 59'.		PID (58'-60'): 0.0			
	August, 1944 - 41, 1945 Add 11-12-11-11-11-11-1	an		1999-1999-1999-1994-1994-1994-1994-1994	an junear a a a a a a a a a a a a a a a a a a	، د د د و د د و د د و د د و د د و د د و د د و د م د و د م د و د م د و د م د و د و		
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			PROJECT: Bethpage Park, Construction Area JOB # TOBY 0402					
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mer.		a marine the second second	State of the state	DRILLER:	OLOTITOBL			
				Borehole diameter	/drill bit type:	total depth	10'	
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1	to Mark to			START TIME:		DATE: 9/23/05		
	and a state of the second s			COMPLETION TIM	ME:	DATE: 9/23/05		
	·····)/*		** · · · · · · · · · · · · · · · · · ·	BACKFILL TIME:		DATE:		
Sample	Advance	Recovered	Soil Desc			Casing depth:	*****	
Depth	(ft)	(ft)	Unified Soil Class		Notes	Screen depth:	annan fan anna fan machar fan an fan an fan an fan an fan an fan an fan ar fan ar fan ar fan ar fan ar fan ar f Maran e fan an fan fan an fan 1 gan fan fan an marannan geregen fan ar en ei fan ar fan ar fan ar fan ar fan ar	
0-4	4' 2'6" 0'-2'6" Tan, sand		0'-2'6" Tan, sandy SW w	v/ cobble, wet	PID (0'-2'): (PID (0'-2'): 0.3		
	100.000 / 100.000 / 100.000 / 100.000 / 100.000 / 100.000 / 100.000 / 100.000 / 100.000 / 100.000 / 100.000 / 1				PID (2'-4') :1	1.2		
4-8	4'	3'	4'-7' Wet, Tan SW		PID (4'-6'): (PID (4'-6'): 0.0		
				PID (6'-8') :	PID (6'-8') : 0.4			
8-10 2'		2'	8'-10' Tan, sandy SW w. copper color.	PID (8'-10'):	PID (8'-10'): 0.0			
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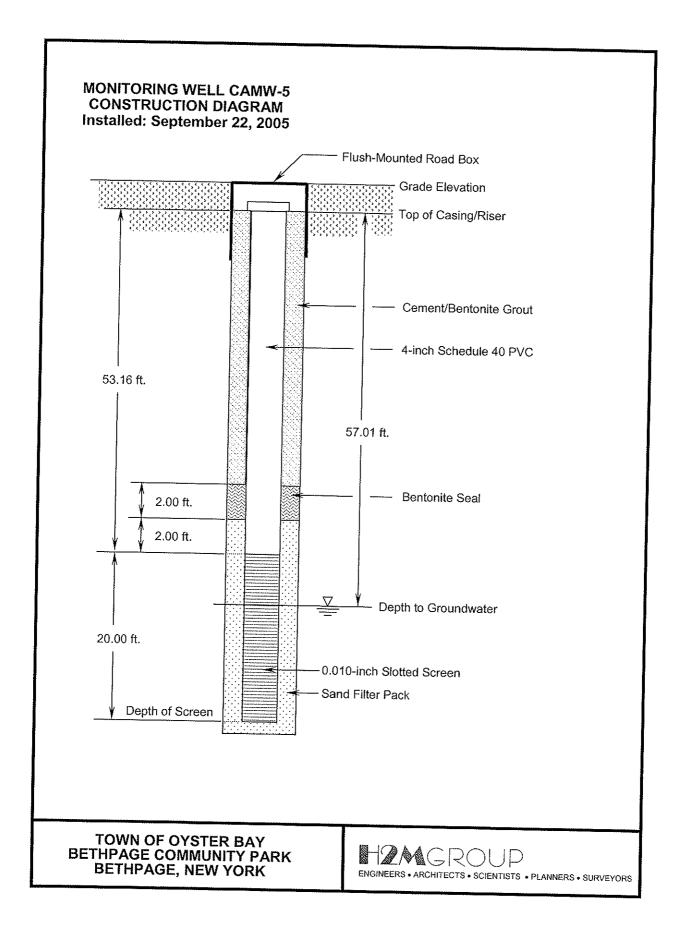
				Boring # R-3	MW#	Page 1	of	1		
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				Borehole diameter	/drill bit type:	total depth		10'		
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Sample Depth	Advance (ft)	Recovered (ft)	Soil Desc Unified Soil Classi		Notes	Casing depth: Screen depth:				
0-4	4'	3'	Mostly medium to coarse	e sands	PID (0'-2'): 0					
					PID (2'-4') :0).0		1999 at a chastant (*** = *** 1.2 kontrochas		
4-8	4'	4'	4'-8' Brown/tan SW w/ c	'-8' Brown/tan SW w/ cobble,		PID (4'-6'): 0.0				
					PID (6'-8') :	0.0				
8-10	2'	2'	8'-10' SW, lots of cobble	8'-10' SW, lots of cobble, rock		0.0				
18-20	2	2	Coarse sands, some gra		PID (18'-20'): 0.0, BD				
28-30	2	2	Med-coarse sands w/ so crushed rock.							
38-40	2	2	Med-coarse sands w/sol and white in color.	me gravel. Brown	PID (38'-40'): 0.0					
48-50	2	2	fine sands. Brown and v	white in color.	PID (48-50):	PID (48-50): 0.0, MS/MSD				
58-60	2	2	Med-fine sands, wet at 6	30'.	PID (58-60)	PID (58-60): 0.0				
							to an Mila of th	12 and		
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			a Palana wa kuto na ku I Palana wa kuto na kut	Boring # R-4	MW#	Page 1 c	of 1			
				PROJECT: Bethp	oage Park, Co	nstruction Area				
	and Lancon	,578		JOB # TOBY 0402	2	a dan dan di kumin kabupit dan minis meri dan minis ka dan ku di kuma dan dan dan dan dan dan dari ka katara ka				
(° ° °		And the second s	Carner Alans	LOGGED BY:	EVT	PRJ. MNGR.: F	PRL			
and the second s	men Carlos and			DRILLING CONTR	ACTOR: Unive	ersal Testing & Insp	ection Service			
na./			R-4	DRILL METHOD:	GEOPROBE					
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				Borehole diameter/	/drill bit type:	total depth	10'			
1	er sonde part er			2"		elevation				
14 A.	n (*			HAMMER WT:	8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	DROP:				
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				COMPLETION TIN	AE:	DATE: 9/23/05				
			e de la companya de la	BACKFILL TIME:		DATE:				
Sample	Advance	Recovered	Soil Desc			Casing depth:				
Depth	(ft)	(ft)	Unified Soil Classi		Notes	Screen depth:				
0-4	4'	3'	0'-3' Tan/ gray SW , san	dy w/ cobble	PID (0'-2'): ().0				
					PID (2'-4') :().0				
4-8	4'	4'	4'-8' Brown/tan SW w/ cobble, areas of crushed rock, moist		PID (4'-6'): (PID (4'-6'): 0.0				
		A 2012 A DIMARKANONI II DIMARKA KATOMATIKA		PID (6'-8') :		: 0.0				
8-10	2'	2'	8'-10' Tan/gray SW, lots	of cobble, rock	PID (8'-10'): 0.0					
	agaan kar dagaan ky kant of get fine of k in Solida a s			Theorem and an initial and a second						
		and a knowledge a contribute a specificitie and and the description of a fill	analas fas ank katoliko la katoliko katoliko katoliko katoliko eta katoliko eta Makka Katoliko (h. 2002).	a a faile ffina tha china ta fail a faile a faile ann an fa	and a set of the distribution shall fail a first of the failed of the	alan da kan d				
			S							
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			annang na annan mag glan balanna agus ngan ngan ngan ngan ngan ngan ngan nga	yadan tara ina dalam nangan mananga na nana araw tanananan						
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ينية مسينين في مسيني	Non and	At Land	Contraction (-	DRILLING CONTR	ACTOR: Unive	ersal Testing & Insp	ection Service	
HH.				DRILL METHOD: I	-Iollow Stem A	uger		
41			West	DRILLER:				
				Borehole diameter/	drill bit type:	total depth	60'	
1. M. C.						elevation		
	•~		1	HAMMER WT:		DROP:		
•	DO HERE .			START TIME:		DATE: 9/23/05		
······	<u></u>			COMPLETION TIN	IE:	DATE: 9/26/05		
<u>~577</u> .		•		BACKFILL TIME:		DATE:	****	
Sample Depth	Advance (ft)	Recovered (ft)	Soil Desc Unified Soil Classi			Casing depth: Screen depth:		
0-2	2'	2' Mostly coarse to gravelly sands		PID (0'-2'): (0.0	ayanan karan dari da sa kabunan dayaka sikaka madan karan da		
					PID (2'-4'): (0.0		
2-4	2'	2'	Mostly coarse to gravelly sands		PID (4'-6'): (0.0		
4-6	2'	2'	Mostly course to gravelly sands		PID (6'-8'): (0.0. BD, MS/MSD		
6-8	2'	2'	Refusal, Mostly rock, some gravel material		PID (8'-10'):	: 0.0		
8-10	2'	2'	Mostly medium sands, s depth 10'-12' due to refu	ome rock, sample Isal	PID(18'-20')): 0.0. Restart 9/26/	/05	
				ىرىنى ئەلەرلىلىرى بىر بىرىندا تەلەرلىرى بىر بىرىنى بىر بىر بىر بىر		11-11-2-1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2		
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		CUP	- • 1 • Y	PROJECT: Bethpa	ge Park, Cor	struction Area			
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		there is the	"X Changer Alberty	LOGGED BY:	EVT		PRL		
·····	sale and the face areas			DRILLING CONTRA	Decertment a martine in a martine		ection Servic		
ee.7	an a		R-6	DRILL METHOD: ho	ollow-Stem Au	ıger			
	旧聖	·		DRILLER:					
		· · · · · · · · · · · · · · · · · · ·		Borehole diameter/di	rill bit type:	total depth	10'		
្រុំទីទីទី						elevation	*****		
		1. 		and developmentational transmission of Simulation de Antonio providence and the maximum statement of the			-		
	~~			HAMMER WT:		DROP:			
				START TIME:	1200.0.0.1.2.2.2.2.1.1.1.1.1.1.1.1.1.1.1	DATE: 9/24/05			
				COMPLETION TIME	• • • • • •	DATE: 9/24/05			
Sample	Advance	Recovered	Soil Desc	BACKFILL TIME:	1	DATE:			
Depth	Advance (ft)	(ft)	Unified Soil Classi		Notes	Casing depth: Screen depth:			
0-2	2'	2'	Mostly coarse to gravelly			.0	n an an Anna ann an Anna an Ann Anna Anna		
2-4	2'	2'	Mostly coarse to gravelly	y sands		. (81-877 . p . 88-971 - 1-87-96 - 90 - 90 - 90 - 90 - 90 - 90 - 90 -		
				offind and the first second definition of the first second second second second second second second second sec	PID (2'-4'): 0	.0			
4-6	2'	14"	Moslty medium to coarse	e sands, some gravel	PID (4'-6'): 0	.0			
			Refusal @ 6'	alle a strati citi ci num e num e num e i cum e citi cum e citi citi citi citi citi citi citi ci		e e a man a faith a san lá sa dao e a chanadh a tha sa san Jan Agar (ag e ag e ag	- daaqaadaadaadaadaadaadaadaadaadaadaadaad		
6-8	2'	2'	Mostly medium to coarse	e sands, some gravel	PID (6'-8'): 0	.0			
8-10	2'	2	Mostly coarse sands, ro	ck	PID (8'-10') :	0.0	afer en i men en per sjonel fokkeningen ko hendedenden		
18-20	2'	2	Mostly coarse sands, ro	ck	PID (18'-20') 0.0				
28-30	2'	2'	Mostly gravelly sands		PID (28'-30')	0.0			
38-40	2'	2'	Mostly medium to fine w	hite sands	PID (38'-40')	0.0			
48-50	2'	2'	Medium to fine sands, s	-	PID (48'-5-')	0.0	Ny handaman akan katikat an ini si sa analah a sa antika katika		
58-60	2'	2'	Mostly medium to fine w clay.	hite sands, some	PID (58'-60')	x 0.0	1979-1979-1979 - 1977 - 1979-1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979		
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Data Validation Services

120 Cobble Creek Road P. O. Box 208 North Creek, N. Y. 12853 Phone 518-251-4429 Facsimile 518-251-4428

November 1, 2005

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Paul Lageraaen H2M Group 575 Broad Hollow Rd. Melville, NY 11747

RE: Data Usability Summary Report for Town of Oyster Bay, Bethpage site H2M Laboratories SDG Nos. TOB0047 through TOB053 STL-VT SDG No. 110080

Dear Mr. Lageraaen:

Review has been completed for the data packages generated by H2M Laboratories that pertain to samples collected 9/21/05 through 10/04/05 at the Town of Oyster Bethpage site. Seventy-three soil samples and six blind field duplicates were analyzed for TCL PCBs and RCRA metals. Twenty soil samples and one aqueous sample were processed for TCL volatiles with two freon compounds, TCL semivolatiles, TCL PCBs, TAL metals/CN, and hexavalent chromium. Eleven air samples were analyzed for volatiles by USEPA method TO-15. Laboratory analytical methodologies utilized for the soil and aqueous samples are those of the NYSDEC ASP/SW846. Sample matrix spikes, and equipment and trip blanks were also processed.

The data packages submitted contained full deliverables for validation, but this usability report is generated from review of the summary form information, with review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA National Functional Guidelines for Data Review, as affects the usability of the sample data. The following items were reviewed:

- * Laboratory Narrative Discussion
- * Case Narratives
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Matrix Spike Recoveries/Duplicate Correlations
- * Preparation/Calibration Blanks
- * Control Spike/Laboratory Control Samples
- * Instrumental Tunes and IDLs
- * Calibration/CRI/CRA Standards
- * ICP Interference Check Standards
- * ICP Serial Dilution Correlations
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR review level.

In summary, samples were processed in compliance with protocol, and results are usable as reported, or with minor edit or qualification of results as estimated. Some of the pesticide/PCB reporting limits (in samples with high Aroclor concentrations) are elevated.

Copies of the NYSDEC Sample Identification and Analytical Requirement Summary Forms are attached to this text, and should be reviewed in conjunction with this report. Included with this report are red-ink edited sample report forms that represent final qualified samples results.

The following text discusses quality issues of concern.

General

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Blind field duplicate correlation was performed for PCBs and RCRA metals on the following samples: Q3(0-2), Q6(0-2), O4(4-6), I14(4-6), R1(4-6), and R3(18-20). All results fall within acceptable limits.

Discrepancies in custody entries were resolved at sample receipt.

No laboratory receipt signature was present on the custody for soil gas samples collected on 9/27/05. The associated sample log-in page is signed and shows receipt date.

TCL Volatiles by EPA8260B

The method blank and field blanks consistently show low levels of methylene chloride at concentrations similar to those in the project samples. Therefore, the sample detections of that compound are to be disregarded as sample components, and are edited to reflect non-detection ("U") at the CRDL, or the originally reported concentration, whichever is greater.

Due to poor spectral match, the low level result for chlorodifluoromethane in R3(2-4) is qualified as tentative in identification and estimated in value ("NJ").

Due to very poor spectral match, the low level result for chlorodifluoromethane in R3(8-10) is edited to reflect non-detection ("U") at the CRDL.

Calibrations standards showed responses within guidelines, with the following exceptions, results for which are qualified in the indicated associated samples:

- \circ bromoform in the field blanks, trip blanks, and in CAMW-5
- dichlorodifluoromethane in O9(2-4) and P4(8-10), in all soils reported in SDG TOB050, and in all soils reported in SDG TOB051 except R5(6-8)

Holding times were met, and surrogate and internal standard responses are acceptable.

Matrix spikes of Q9(8-10), Q6(8-10), O9(2-4), I14(0-2), and R3(48-50) show acceptable accuracy and precision.

Tentatively Identified Compounds (TICs) flagged as "B" by the laboratory, or identified as siloxanes are considered external contamination (indicated by presence in associated blanks), and results should be rejected as sample components.

TICs flagged by the laboratory as "X" are analysis artifacts and are rejected from consideration as target analytes.

TCL Semivolatile Analyses by EPA8270C

Results for analytes initially reported with the "E" flag derived from the dilution analyses of those samples.

Detected values of benzo(b)fluoranthene and benzo(k)fluoranthene in P9(8-10) are qualified as estimated due to poor resolution.

Calibrations standards showed acceptable responses, or slightly outlying elevated responses not affecting the usability of the sample results, with the exception that results for the following, results of which are qualified as estimated in the associated, indicated samples:

- Hexachlorocyclopentadiene and pentachlorophenol (26%D to 47%D) in all samples reported in SDGs TOB047, TOB048, TOB049, TOB051, and TOB052, those at location "R" reported in TOB050,
- Pentachlorophenol (37%D) in samples at location "I14"

Holding times were met, and surrogate and internal standard responses are acceptable.

Matrix spikes of Q9(8-10), Q6(8-10), Q9(2-4), I14(0-2), R5(4-6), R3(48-50), and CAMW-5 produced acceptable accuracy and precision (or elevated recoveries or correlations for analytes not detected in the parent sample), with the exception of a low recovery for pentachlorophenol in one of the spikes of R5(4-6). Results for that analyte in the project samples are already qualified as estimated due to calibration standard responses.

Tentatively Identified Compounds (TICs) flagged as "B", "X", or "A" by the laboratory are considered external contamination (indicated by presence in associated blanks), and results should be rejected as sample components. Additionally, the TIC identified as "Erucylamide" (which is a poor match) appears in samples and field blanks. That TIC is also rejected in the samples. The TICs at about 3.6' and 3.7' in many of the soil samples are rejected due to presence of those unknowns in associated field blanks.

The dilution analysis of O9(2-4) is to be used for TIC quantitations due to interferences in the less dilute analysis.

Values for TICs flagged by the laboratory as "Y" may have a low bias due to matrix interference effect on the quantitative determinations.

TCL PCB Analyses by EPA8082

Surrogate standards show acceptable recoveries when not diluted (due to sample constituency) beyond detection.

Reporting limits for non-detected Aroclor mixtures that were reported with the "X" flag are qualified as estimated, with a possible low bias, due to responses from other mixtures present in the sample that may mask those detections.

Aroclor results flagged as "Z" by the laboratory are qualified as estimated due to matrix interferences.

Results for sample analytes initially reported with the "E" flag are to be derived from the dilution ("-DL") analyses of the samples.

Due to interferences from the high PCB constituency of samples O4, O4(2-4), P2(2-4), Q9(8-10), Q9(0-2), and Q9(2-4) only the dilution analyses are to be used. This results in elevated reporting limits for non-detected Aroclor mixtures.

The results for Aroclor 1260 in Q6, for Aroclor 1254 in P4(0-2), Q4(0-2), and Q6, and for Aroclor 1242 in Q7(2-4), P4(0-2), and Q4(0-2) are qualified as estimated in value ("J") due to poor dual column correlations and pattern match.

Due to outlying calibration standard responses, detected results for Aroclor 1254 are qualified as estimated in J11(0-2) and J11(2-4).

The sample Aroclor 1242 detections show a weathered pattern, and the laboratory therefore worked to optimize the quantitative accuracy. Although not qualified, these values may have a bias.

Matrix spikes of Aroclors 1016 and 1260 in Q9 (8-10), Q6(8-10), O9(2-4), I14(0-2), R5(4-6)., R3(48-50), and CAMW5 show acceptable recoveries and duplicate correlations. In some cases, the sample concentrations of Aroclor 1242 are too high to accurately evaluate the spiked Aroclor 1016 recoveries (due to similarity in pattern).

Volatile Analyses by EPA TO-15

Results for sample analytes initially reported with the "E" flag are to be derived from the dilution ("-DL") analyses of the samples.

The LCSs show outlying elevated recoveries for isopropyl alcohol, 1,4-dioxane, t-butyl alcohol, and acetone. Detected results for those analytes in associated samples have been qualified as estimated.

Calibration standards show elevated responses for acetone (33%D to 39%D on 10/11/05 and 10/12/05) and isopropyl alcohol (37%D on 10/16/05). Detected results of those compounds in the associated samples are qualified as estimated ("J").

Holding times were met, and blanks show no contamination. Internal standard responses are within required limits.

RCRA and TAL Metals/CN by 6010B, 7470, and 7471

Sample matrix spike recovery/duplicate correlation values were within validation guidelines for M9 (4-6) and CAMW5. The following validation action outliers were observed in soil matrix spike recoveries and laboratory duplicate correlations. Results for the indicated analytes are qualified estimated in all samples associated with the spike and duplicate:

Sample Spiked	Analyte	Rec Outlier	Dup Outlier	Associated Samples
Q9(8-10)	Antimony	62 %	-	TOB047
	Manganese	343		+1
	Selenium	131		only Q9(0-2) affected
Q6(8-10)	Antimony	50		TOB048
	Chromium	52		11
	Manganese	2		ff
O9(2-4)	arsenic	195		TOB049
	Cadmium	30		15
	Chromium	279		11
	Copper	665		"
	Calcium		101%RPD	н
R6(0-2)	manganese	264		TOB051
	Zinc		>±2XCRDL	11
R3(48-50)	Antimony	71		TOB052
	Selenium	54		11

ICP serial dilution correlation evaluations were performed on Q9(8-10), Q6(8-10), O9(2-4), Q9(2-4), I14(0-2), R6(0-2), R3(58-60), and CAMW5 Results for the following detected sample analytes are qualified estimated due to outlying correlations:

- Potassium (12%D) in TOB047
- Copper and potassium (12%D to 13%D) in TOB048
- o Calcium, magnesium, and zinc (23%D to 29%D) in TOB050
- Aluminum (140%D), potassium (60%D), and zinc (14%D) in TOB052
- Aluminum (24%D) in CAMW-5

Sample processing was compliant, and reported results are substantiated by the raw data.

Wet Chemistry Analyses-Cr+6 by SW7196

Review was conducted for method compliance, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable to each procedure. All were found acceptable unless noted specifically within this text.

The matrix spike and duplicate of Q6(8-10), O9(2-4), I14(0-2)R3(48-50), and CAMW5 show acceptable accuracy and precision.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours, Judy Harry

VALIDATION QUALIFIER DEFINITIONS

DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

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- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- **R** The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LABORATORY SAMPLE IDs AND CASE NARRATIVES

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SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: TOB047			Analytical Requirements					
Customer Sample Code	Laboratory Sample Code	GCSEMI	ME	MSSEMI	MSVOA	wc		
P9 (0-2)	0509683-001	X	X		·			
P9 (2-4)	0509683-002	X	X	·				
P9 (4-6)	0509683-003	X	x					
P9 (8-10)	0509683-004	X	X	x	X	х		
Q7 (0-2)	0509683-005	X	х					
Q7 (2-4)	0509683-006	X	X	-				
Q7 (4-6)	0509683-007	X	X			······································		
Q7 (8-10)	0509683-008	X	Х	X	X	X		
Q8	0509683-009	X	X					
Q8 (0-2)	0509683-010	X I	X	+				
Q8 (2-4)	0509683-011	x	х					
Q8 (4-6)	0509683-012	x	X					
Q8 (8-10)	0509683-013	×	X	X	X	X		
Q9 (0-2)	0509683-014	x	X	+				
Q9 (2-4)	0509683-015	X	X					
Q9 (4-6)	0509683-016	X	X	; ;				
Q9 (8-10)	0509683-017	×	Х	X	X 1	X		
FB47	0509683-018	x T	Х	X	X	X		
TB47	0509683-019			<u>†</u>	X			

TOB047 S4

KJ22105

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: TOB048			Anal	ytical Requi	irements	
Customer Sample	Laboratory Sample	GCSEMI	ME	MSSEMI	MSVOA	wc
Code P4 (0-2)	0509695-001	X	~~~~	-		
			<u> </u>			
P4 (2-4)	0509695-002	X	X			
P4 (4-6)	0509695-003	X	Х			
Q4 (0-2)	0509695-004	X	Х	1		
Q4 (2-4)	0509695-005	X	X			
Q4 (4-6)	0509695-006	X	X			······
Q4 (8-10)	0509695-007	X	Х	X	X	Х
Q5 (0-2)	0509695-008	X	X			
Q5 (2-4)	0509695-009	Xi	X			
Q5 (4-6)	0509695-010	X	X			· · · · · · · · · · · · · · · · · · ·
Q5 (8-10)	0509695-011	X	X	X	X	X
Q6	0509695-012	X	X			
Q6 (0-2)	0509695-013	X	х			
Q6 (2-4)	0509695-014	X	X			
Q6 (4-6)	0509695-015	X	X	1	1	
Q6 (8-10)	0509695-016	x	X	X	X	X
FB48	0509695-017	X	Х	X	X	X

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SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: TOB049		Analytical Requirements						
Customer Sample Code	Laboratory Sample Code	GCSEMI	ME	MSSEMI	MSVOA	wc		
113 (0-2)	0509742-001	X	X					
113 (2-4)	0509742-002	X	X					
113 (4-6)	0509742-003	X	х					
113 (8-10)	0509742-004	X	Х	X	X	<u> </u>		
	0509742-005	X	Х	X	X	<u> </u>		
J11 (2-4)	0509742-006	X	х			<u></u>		
J11 (4-6)	0509742-007	X	х					
J11 (8-10)	0509742-008	X	Х					
04	0509742-009	X	X					
O4 (0-2)	0509742-010	X	х					
04 (2-4)	0509742-011	X	х					
09 (0-2)	0509742-012	X	х					
09 (2-4)	0509742-013	X	Х	×	X	X		
O9 (4-6)	0509742-014	x	X					
O9 (8-10)	0509742-015	X	X					
P4 (8-10)	0509742-016	X	Х	Х	X	X		
FB49	0509742-017	X	Х	X	X	X		

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SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: TOB050		Analytical Requirements							
Customer Sample Code	Laboratory Sample Code	GCSEMI	ME	MSSEMI	MSVOA	wc			
114	0509757-001	X	Х						
114 (0-2)	0509757-002	X	X	X	X	X			
114 (2-4)	0509757-003	X	X						
114 (4-6)	0509757-004	X	X						
I14 (8-10)	0509757-005	X	X						
R2 (0-2)	0509757-006	X	X						
R2 (2-4)	0509757-007	X	Х	X	X	Х			
R2 (4-6)	0509757-008	X	Х						
R2 (8-10)	0509757-009	X	X						
R4 (0-2)	0509757-010	X	X						
R4 (2-4)	0509757-011	x	Х						
R4 (4-6)	0509757-012	† x †	X	-	·····				
R4 (6-8)	0509757-013	X	X	X	X	X			
R4 (8-10)	0509757-014	i X	Х	1					
FB50	0509757-015	X	X	+ X	X	X			

TOB050 S4



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SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: TOB051		Analytical Requirements						
Customer Sample Code	Laboratory Sample Code	GCSEMI	ME	MSSEMI	MSVOA	wc		
R1	0509772-001	X	Х					
R1 (0-2)	0509772-002	x	X	-		·····		
R1 (2-4)	0509772-003	X	X		X			
R1 (4-6)	0509772-004	X	X					
R1 (6-8)	0509772-005	X	X	T X	×	X		
R1 (8-10)	0509772-006	X	X		x			
R1 (18-20)	0509772-007	x	X					
R5 (0-2)	0509772-008	X	x			·		
R5 (2-4)	0509772-009	X	X	+i				
R5 (4-6)	0509772-010	x	X	X	x	x		
R6 (0-2)	0509772-011	x	X	1				
R6 (2-4)	0509772-012	X	X		X			
R6 (4-6)	0509772-013	x	X	-				
-B051	0509772-014	X	X	+	×	X		
TB051	0509772-015	······			X			
R3 (0-2)	0509827-001	X	X	<u> </u>				
₹3 (2-4)	0509827-002	X	X	X	X	X		
₹3 (4-6)	0509827-003	X	X					
(3 (8-10)	0509827-004	×	X					
15 (6-8)	0509827-005	Х ·	X	X	x	×		
(8-10)	0509827-006	X	X					
B51	0509827-007	·······			x			

1/2/05

TOB051 A3

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SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: TOB052		Analytical Requirements						
Customer Sample	Laboratory Sample	GCSEMI	ME	MSSEMI	MSVOA	wc		
Code	Code							
28-30 R1	0509883-001	X	х		X			
38-40 R1	0509883-002	X	Х					
48-50 R1	0509883-003	X	Х		Х			
58-60 R1	0509883-004	X	Х					
FB52	0509883-005	X	Х	X	Х	х		
тв	0509883-006				Х			
R3	0509947-001	X	Х					
R3 (18-20)	0509947-002	X	Х					
R3 (30-32)	0509947-003	X	Х		Х			
R3 (38-40)	0509947-004	X	X					
R3 (48-50)	0509947-005	X	Х	X	Х	х		
R3 (58-60)	0509947-006	X	X					
R6 (6-8)	0509947-007	X	X	×	X	X		
R6 (8-10)	0509947-008	X	X	!	X			
R6 (20-22)	0509947-009	X	X	1	1			
R6 (28-30)	0509947-010	X	X		X			
₹6 (38-40)	0509947-011	X	X					
R6 (48-50)	0509947-012	X	Х		X			
R6 (58-60)	0509947-013	X	Х					
B52	0509947-014				Х			

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: TOB053		Analytical Requirements						
Customer Sample Code	Laboratory Sample Code	GCSEMI	ME	MSSEMI	MSVOA	WC		
CAMW5	0510109-001	X	Х	X	X	Х		
FB53	0510109-002	X	×	X	x	X		
тв	0510109-003				Х			

CLP, Non-CLP (Please indicate year of protocol) ASP B 10195 TCL/TAL, HSL, Priority Pollutant,

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STL Burlington 208 South Park Drive, Suite 1 Colchester, VT 05446

Tel: 802 655 1203 Fax: 802 655 1248 www.stl-inc.com

October 19, 2005

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Mr. Paul Lageraaen H2M Group 575 Broad Hollow Road Melville, NY 11747

Re: Laboratory Project No. 25000 Case: 25000; SDG: 110080

Dear Mr. Lageraaen:

Enclosed are the analytical results for samples received by STL Burlington on September 29 and 30, 2005. This report is sequentially numbered starting with page 1 and ending with page 0546.

Laboratory identification numbers were assigned, and designated as follows:

Lab ID	Client	Sample	Sample
	<u>Sample ID</u>	<u>Date</u>	<u>Matrix</u>
	Received: 09/29/05 ETR No:	110080	
640303	R1 10-12	09/27/05	Air
640304	Ambient 9-27-05	09/27/05	Air
640305	R1 28-30	09/27/05	Air
640306	R1 48-50	09/27/05	Air
	Received: 09/30/05 ETR No:	110081	
640307	R-3 8-10	09/28/05	Air
640308	Ambient 9-28-05	09/28/05	Air
640309	R3 28-30	09/28/05	Air
640310	R3 48-50	09/28/05	Air
640311	R6 8-10	09/28/05	Air
640312	R6 28-30	09/28/05	Air
640313	R6 48-50	09/28/05	Air

Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal.

Method TO-15 – Volatile Organics:

The analyses of the field samples R3 8-10, R3 28-30, R3 48-50, R6 8-10, R6 28-30 and R6 48-50 were accomplished at dilutions in order to provide quantification of all target analytes within the calibrated range of instrument response. The results were within the calibration range of the instrument.

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The original analyses of the field samples R1 28-3, R1 10-12 and R1 48-50 were accomplished at dilutions in order to provide quantification of all target analytes within the calibrated range of instrument response. The results of the original dilution analyses exhibited concentrations of select target compounds that exceeded the calibration range. Consequently, further dilution analyses were performed for these samples, yielding results that were within the calibration range of the instrument. Both sets of data have been presented in this case submittal.

The analyses of the blank spike samples designated BDWE LCS, BDWF LCS and VHEA LCS and the associated blank spike duplicate samples exhibited percent recoveries for select target compounds that were outside of the control limits. The results for relative percent differences in the interanalysis comparisons for all blank spike duplicate samples were within the established control limits in each case. All outliers are presented on the analytical Form 3.

The responses for the target compounds tert-Butyl Alcohol, Acetone and Isopropyl Alcohol in select continuing calibration check acquisitions exceeded the maximum percent difference criterion. Acetone was detected in the sample R1 48-50. Isopropyl Alcohol was detected in R2 8-10, R3 28-30, R3 48-50, R6 8-10, R6 28-30 and R6 48-50.

An additional qualifier was utilized in several of the analyses of the samples in this delivery group.

Z = Freon 22 co-eluted with Dichlorodifluoromethane. The laboratory suspects that the estimated value that was reported for Freon 22 may be biased high. The quantitation process uses the area of the peak to calculate the result, which, in these cases also includes Dichlorodifluoromethane.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

If there are any questions regarding this submittal, please contact me at 802 655-1203.

Sincerely,

Ron Pentkowski Project Manager

Enclosure

SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 10/4/05 SDG NO.: TOB053

For Samples:

CAMW5 MS/MSD FB53

The above water sample and a field blank were prepared and analyzed for PCBs by EPA methods 3520C and 8082.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- The samples were cleaned up with concentrated sulfuric acid.
- Sample CAMW5was analyzed as the matrix spike/matrix spike duplicate.
- Positives are reported to the practical detection limit of ½ of the reporting limits.
- A table of codes used for corrections and manual integration is presented before the sample reports.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

Ursula Middel

Technical Manager

SDG NARRATIVE FOR METALS ANALYSIS SAMPLES RECEIVED: 10/4/05 SDG NO.: TOB053

For Samples:

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CAMW5 MS/MSD FB53

The above samples were received by H2M Labs, Inc. on 10/4/05 for select metals and cyanide analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument, method 245.1 with a Leeman HYDRA mercury analyzer, and cyanide method 335.2.

Sample CAMW5 was utilized for QC analysis and reporting.

ICP serial dilution analysis of sample CAMW5 did not meet acceptance criteria for aluminum and sodium. Results for these metals were reported with the qualifier "E" on Forms 1 and 9.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

Ursula Middel Technical Manager

SDG NARRATIVE FOR WET CHEMISTRY SAMPLES RECEIVED: 10/4/05 SDG NO.: TOB053

For Samples:

CAMW5 MS/MSD FB53

Two water samples were received by H2M Labs, Inc. on 10/4/05 for select wet chemistry analysis.

Samples were prepared and analyzed using the following method:

Hexavalent chromium EPA SW7196

Sample CAMW5 was utilized for duplicate and spike QC analysis and reporting.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

Vincent Stancampiano Vice President

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H2M LABS, INC.

SDG NARRATIVE FOR VOLATILES ANALYSES SAMPLES RECEIVED: 9/21/05 SDG #: TOB047

For Samples:

P9 (8-10) Q7 (8-10) Q8 (8-10) Q9 (8-10) MS/MSD TB47 FB47

The above samples and blanks were analyzed for a specific list of volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the protocol, and no problems were encountered with sample analysis.

Sample Q9 (8-10) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).

Low levels (under the PQL) of methylene chloride was present in the method blank. A "B" qualifier is applied to this analyte if present in the samples associated with the blank.

Carbon tetrachloride and bromoform had RSD's greater than 20.5% in the unheated initial calibration of 9/23/05. Vinyl chloride and 4-bromofluorobenzene had % D's greater than 25% in the unheated continuing calibration of 9/23/05 (HP 5973-1) and the heated continuing calibration of 9/23/05 (HP 5970-3), respectively.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Joann M. Slavin Segior Vice President

SDG NARRATIVE FOR SEMIVOLATILES ANALYSES SAMPLES RECEIVED: 9/21/05 SDG #: TOB047

For Samples:

FB47 P9 (8-10) Q7 (8-10) Q8 (8-10) Q9 (8-10) MS/MSD

The above water samples and field blank were analyzed for the TCL list of semivolatile analytes by EPA method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample Q9 (8-10) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).
- 2,4-dinitrotoluene had a high recovery in both the matrix spike and the matrix spike duplicate. 4-nitrophenol and pentachlorophenol had a high recovery in the matrix spike blank. These recoveries were however within our in-house limits. Sample Q9 (8-10) had a high surrogate recovery for 2,4,6- tribromophenol. All recoveries were acceptable in the matrix spike and the matrix spike duplicate.
- The soil method blank of 9/23/05 contained TIC's, which were a secondary contamination from the GPC system. These analytes are flagged with a "B" qualifier if present in the associated samples. TIC's identified as "unknown alkanes" are presented on the TIC form 1 but are not included in the total number of TIC"s found.
- Pentachlorophenol exceeded 25.6 % D in the continuing calibration of 9/26/05.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: September 30, 2005

Joann M. Slavin Senior Vice President

TOB047 S23

SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/21/05 SDG NO.: TOB047

Page 1 of 2

For Samples:

FB47	Q7 (2-4)	Q8 (4-6)
P9 (0-2)	Q7 (4-6)	Q8 (8-10)
P9 (2-4)	Q7 (8-10)	Q9 (0-2)
P9 (4-6)	Q8	Q9 (2-4)
P9 (8-10)	Q8 (0-2)	Q9 (4-6)
Q7 (0-2)	Q8 (2-4)	Q9 (8-10) MS/MSD

The above soil samples and a field blank were prepared and analyzed for PCBs by EPA methods 3545 / 3510B and 8082.

All QC data and calibrations met the requirements of the method, unless listed below. The following should be noted:

- All soil samples were cleaned up with concentrated sulfuric acid and were subjected to sulfur cleanup with TBA.
- Sample Q9 (8-10) was analyzed as the matrix spike/matrix spike duplicate. The sample contained AR1242, which has a pattern very similar to the AR1016 spike that was added for MS/MSD spiking. The AR1242 concentration in the sample is subtracted for computation of the spike recovery.
- On form 1 of the MS and MSD, the sum of the two aroclors is reported as AR1016, and the result of AR1242 is flagged with the qualifier "Y" to indicate the concentration is included in the AR1016 result.
- QC limits for AR1016 and AR1260 do not apply, because the spiking level was not a multiple of the sample concentration.
- The surrogate recovery for DCB in sample Q8 (0-2)DL is above the advisory QC limit on both analytical columns.
- Since only aroclors were analyzed, the initial calibrations and continuous calibrations for pesticides required by the ASP, were replaced by calibrations with AR1660. %D for all continuous calibrations were under 25%.
- The ASP protocol mandates an analysis of the standards for all positive aroclors within 72 hours, but does not specify any mandatory %D for the response. The analysis of AR125402 shows a high %D of 31.6% on column RTX-CLP1. Based on that, data for AR1254 on that column are believed to be biased high. All quantifications reported for that aroclor were derived from the other column, RTX-CLP2.
- %D is above 25% for TCX in AR166015 on column RTX-CLP1 and for DCB in AR124202 on column RTX-CLP2.

SDG NARRATIVE FOR METALS ANALYSIS SAMPLES RECEIVED: 9/21/05 SDG NO.: TOB047

For Samples:

FB47	Q8
P9 (0-2)	Q8 (0-2)
P9 (2-4)	Q8 (2-4)
P9 (4-6)	Q8 (4-6)
P9 (8-10)	Q8 (8-10)
Q7 (0-2)	Q9 (0-2)
Q7 (2-4)	Q9 (2-4)
Q7 (4-6)	Q9 (4-6)
Q7 (8-10)	O9 (8-10) MS/MSD

One water sample and seventeen soil samples were received by H2M Labs, Inc. on 9/21/05 for select metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument, 245.1/245.5 with a Leeman HYDRA mercury analyzer and cyanide method 335.2.

Sample Q9 (8-10) was utilized for QC analysis and reporting.

Spike analysis did not recover within 75-125% for iron. Since the sample value was greater than four times the spike concentration, post spikes and data qualifiers were not required.

Spike analysis did not recover within acceptance ranges for selenium, antimony and manganese. The sample was post-spiked, reanalyzed recovering at 125.7% for antimony, 98.5% for manganese and 154.6% for selenium. Associated data were reported flagged "N" on forms 1 and 5A.

ICP serial dilution analysis did not reproduce within acceptance ranges for potassium. Potassium data was reported flagged "E" on forms 1 and 9.

ICP run of 9/22/05 was not used for iron reporting due to continuous calibration recoveries. Samples were reanalyzed for iron on 10/3/05 and reported.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Vincent Stancampiano Vice President

SDG NARRATIVE FOR WET CHEMISTRY SAMPLES RECEIVED: 9/21/05 SDG NO.: TOB047

For Samples:

P9 (0-2)	Q8
P9 (2-4)	Q8 (0-2)
P9 (4-6)	Q8 (2-4)
P9 (8-10)	Q8 (4-6)
Q7 (0-2)	Q8 (8-10)
Q7 (2-4)	Q9 (0-2)
Q7 (4-6)	Q9 (2-4)
Q7 (8-10)	Q9 (4-6)
FB47	Q9 (8-10) MS/MSD

One water sample and seventeen soil samples were received by H2M Labs, Inc. on 9/21/05 for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Percent Moisture	ASTM D2216
Hexavalent Chromium	EPA 7196

Sample Q9 (8-10) was utilized for duplicate and spike QC analysis and reporting.

Samples were diluted as required to keep instrument readings within calibration ranges.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

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Vincent Stancampiano Vice President

SDG NARRATIVE FOR VOLATILES ANALYSES SAMPLES RECEIVED: 9/21/05 SDG #: TOB048

For Samples:

Q4 (8-10) Q5 (8-10) Q6 (8-10) MS/MSD FB48

The above samples and blanks were analyzed for a specific list of volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the protocol, and no problems were encountered with sample analysis.

Sample Q6 (8-10) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).

Low levels (less than the PQL) of methylene chloride were present in the method blanks. A "B" qualifier is applied to this analyte if present in the samples associated with this blank.

Carbon tetrachloride and bromoform had RSD's greater than 20.5% in the unheated initial calibration of 9/23/05. Vinyl chloride and 4-bromofluorobenzene had percent D's greater than 25% in the continuing calibration of (HP5973-1) 9/23/05 unheated and (HP5970-3) 9/23/05 heated, respectively.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Joann M. Slavin Senior Vice President

SDG NARRATIVE FOR SEMIVOLATILES ANALYSES SAMPLES RECEIVED: 9/21/05 SDG #: TOB048

For Samples:

FB48 Q4 (8-10) Q5 (8-10) Q6 (8-10) MS/MSD

The above water samples and field blank were analyzed for the TCL list of semivolatile analytes by EPA method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample Q6 (8-10) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). 2,4-dinitrotoluene had a high recovery in both the matrix spike and the matrix spike duplicate. Phenol had a high recovery in the matrix spike duplicate. 4 nitrophenol and pentachlorophenol had a high recovery in the matrix spike blank. These recoveries were however within our in-house recovery limits.
- All samples had a high surrogate recovery for 2,4,6-tribromophenol.
- The soil method blank of 9/23/05 contained TIC's, which were a secondary contamination from the GPC system. These analytes are flagged with a "B" qualifier if present in the associated sample.
- TIC's identified as "unknown alkanes" are presented on the TIC form I but are not included in the total number of TIC's found.
- A "Z" qualifier is applied to the TIC erucylamide in the aqueous samples. This analyte was present in the water method blank however under the reportable level.
- Pentachlorophenol exceeded in the initial calibration of 9/26/05.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Joann M. Slavin Senior Vice President

H2M LABS, INC.

SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/26/05 SDG NO.: TOB048

Page 1 of 2

For Samples:

FB48	Q4 (4-6)	Q6
P4 (0-2)	Q4 (8-10)	Q6 (0-2)
P4 (2-4)	Q5 (0-2)	Q6 (2-4)
P4 (4-6)	Q5 (2-4)	Q6 (4-6)
Q4 (0-2)	Q5 (4-6)	Q6 (8-10) MS/MSD
Q4 (2-4)	Q5 (8-10)	

The above soil samples and a field blank were prepared and analyzed for PCBs by EPA methods 3545 / 3510B and 8082.

All QC data and calibrations met the requirements of the method, unless listed below. The following should be noted:

- All soil samples were cleaned up with concentrated sulfuric acid and were subjected to sulfur cleanup with TBA.
- Sample Q6 (8-10) was analyzed as the matrix spike/matrix spike duplicate. The sample contained AR1242, which has a pattern very similar to the AR1016 spike that was added for MS/MSD spiking. The AR1242 concentration in the sample is subtracted for computation of the spike recovery.
- On form 1 of the MS and MSD, the sum of the two aroclors is reported as AR1016, and the result of AR1242 is flagged with the qualifier "Y" to indicate the concentration is included in the AR1016 result.
- Since only aroclors were analyzed, the initial calibrations and continuous calibrations for pesticides required by the ASP, were replaced by calibrations with AR1660. %D for all continuous calibrations were under 25%.
- The ASP protocol mandates an analysis of the standards for all positive aroclors within 72 hours, but does not specify any mandatory %D for the response. The analysis of AR125403 in sequence 9/22/05 shows a high %D of 38 % on column RTX-CLP1. Based on that, data for AR1254 on that column are believed to be biased high. All quantifications reported for that aroclor in that sequence were derived from the other column, RTX-CLP2.
- %D is above 25% for TCX in AR124203 on column RTX-CLP1.

SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/26/05 SDG NO.: TOB048

Page 2 of 2

- One sample exceeded the calibration range for targeted analytes and was reanalyzed at a dilution. Both sets of data are reported.
- In dilutions of 1:10 and above, no surrogate recoveries are reported, because the surrogate spike is diluted out.
- AR1242 in the samples showed ratios of congeners different from those found in the standards, due to weathering. This bias has been taken into account for the selection of the quantification peaks, to obtain a representative average result.
- In samples with positive aroclors, low levels of other aroclors could be masked due to the overlap of patterns. These other aroclors are flagged with the qualifier X.
- The qualifier "Z" is used for AR1254 in presence of higher levels of AR1242 to indicate that the result for AR1254 is biased high due to the overlap of patterns.
- Positives are reported to the practical detection limit of ½ of the reporting limits.
- A table of codes used for corrections and manual integration is presented before the sample reports.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Ursula Middel Technical Manager

SDG NARRATIVE FOR METALS ANALYSIS SAMPLES RECEIVED: 9/21/05 SDG NO.: TOB048

For Samples:

P4 (0-2) Q5 (4-6) P4 (2-4) Q5 (8-10) P4 (4-6) Q6 Q4 (0-2) Q6 (0-2) Q4 (2-4) Q6 (2-4) Q4 (4-6) Q6 (4-6) Q4 (8-10) Q6 (8-10) MS/MSD Q5 (0-2) **FB48** O5 (2-4)

One water sample and sixteen soil samples were received by H2M Labs, Inc. on 9/21/05 for select cyanide and metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument, 245.1/245.5 with a Leeman HYDRA mercury analyzer and cyanide method 335.2.

Sample Q6 (8-10) was utilized for QC analysis and reporting.

Spike analysis did not recover within 75-125% for iron and lead. Since the sample value was greater than four times the spike concentration, post spikes and data qualifiers were not required.

Spike analysis did not recover within acceptance ranges for chromium, antimony and manganese. The sample was post-spiked, reanalyzed and recovered acceptably. Antimony, chromium and manganese data were reported flagged "N" on forms 1 and 5A.

Duplicate analysis did not reproduce within acceptance ranges for chromium and copper. Chromium and copper data were reported flagged "*" on forms 1 and 6.

ICP serial dilution analysis did not reproduce within acceptance ranges for copper and potassium. Copper and potassium data were reported flagged "E" on forms 1 and 9.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Vincent Stancampiano Vice President

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY SAMPLES RECEIVED: 9/21/05 SDG NO.: TOB048

For Samples:

FB48	Q5 (2-4)
P4 (0-2)	Q5 (4-6)
P4 (2-4)	Q5 (8-10)
P4 (4-6)	Q6
Q4 (0-2)	Q6 (0-2)
Q4 (2-4)	Q6 (2-4)
Q4 (4-6)	Q6 (4-6)
Q4 (8-10)	Q6 (8-10) MS/MSD
Q5 (0-2)	

One water sample and sixteen soil samples were received by H2M Labs, Inc. on 9/21/05 for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Percent Moisture	ASTM D2216
Hexavalent Chromium	EPA 7196

Sample Q6 (8-10) was utilized for duplicate and spike QC analysis and reporting.

LCS analysis of 9/27/05 did not recover within 80-120%. LCS analysis recovered within H2M in-house calculated limits of 56.3-126%.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

***** Incent Stancampiano Vice President

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILES ANALYSES SAMPLES RECEIVED: 9/22/05 SDG #: TOB049

For Samples:

I13 (8-10) J11 (0-2) O9 (2-4) MS/MSD P4 (8-10) FB49

The above samples and blanks were analyzed for a specific list of volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the protocol, and no problems were encountered with sample analysis.

Sample O9 (2-4) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). The internal standard area count for d5-chlorobenzene was low in the matrix spike sample. All area counts were acceptable in the parent sample and the matrix spike duplicate.

Low levels (under the PQL) of methylene chloride were present in the method blanks associated with these samples. A "B" qualifier is applied to this analyte if present in a sample associated with the blank.

An "X" qualifier is applied to TIC's, which appear to be due to column bleed. TIC's identified as "unknown alkanes" are listed on the TIC form I. These TIC's are however not counted in the number of TIC's found.

Carbon tetrachloride and bromoform had an RSD greater than 20.5% in the unheated initial calibration of 9/23/05.

Vinyl chloride and 4-bromofluorobenzene had % D's greater than 25% in the unheated continuing calibration of 9/23/05 (HP5973-1) and the heated continuing calibration of 9/23/05 (HP5970-3), respectively.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Joann M. Slavin Senior Vice President

SDG NARRATIVE FOR SEMIVOLATILES ANALYSES SAMPLES RECEIVED: 9/22/05 SDG #: TOB049

For Samples:

FB49 I13 (8-10) J11 (0-2) O9 (2-4) MS/MSD P4 (8-10)

The above water samples and field blank were analyzed for the TCL list of semivolatile analytes by EPA method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample O9 (2-4) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). 4-chloromethylphenol, 2,4-dinitrotoluene and pyrene have high percent recoveries in both the matrix spike and the matrix spike duplicate. 4 nitrophenol and pentachlorophenol had a high recovery in the matrix spike blank. These recoveries were however within our in-house recovery limits.
- Sample P4 (8-10) had a high surrogate recovery for 2,4,6-tribromophenol.
- The soil method blank of 9/23/05 contained TIC's, which were secondary contamination from the GPC system. These analytes are flagged with a "B" qualifier if present in the associated samples. TIC's identified as "unknown alkanes" are presented on the TIC form I but are not included in the total number of TIC's found.
- A "Z" qualifier is applied to the TIC erucylamide in the aqueous sample. This analyte was present in the water method blank however under the reportable level.
- A "Y" qualifier is applied to TIC's whose concentration level may be biased low due to interference with the total area count of the internal standard used to quantify the peak.
- An "X" qualifier is applied to TIC's, which appear to be due to column bleed.
- Sample O9 (2-4) was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.
- Pentachlorophenol exceeded 25% D in the continuing calibrations of 9/26/05 and 9/27/05.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Joann M. Slavin Senior Vice President

H2M LABS, INC.

SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/22/05 SDG NO.: TOB049

Page 1 of 2

For Samples:

J11 (2-4)	O9 (0-2)
J11 (4-6)	O9 (2-4) MS/MSD
J11 (8-10)	O9 (4-6)
O4	O9 (8-10)
O4 (0-2)	P4 (8-10)
O4 (2-4)	
	J11 (4-6) J11 (8-10) O4 O4 (0-2)

The above soil samples and a field blank were prepared and analyzed for PCBs by EPA methods 3545 / 3510B and 8082.

All QC data and calibrations met the requirements of the method, unless listed below. The following should be noted:

- All soil samples were cleaned up with concentrated sulfuric acid and were subjected to sulfur cleanup with TBA.
- Sample O9 (2-4) was analyzed as the matrix spike/matrix spike duplicate. The sample contained AR1242, which has a pattern very similar to the AR1016 spike that was added for MS/MSD spiking. The AR1242 concentration in the sample is subtracted for computation of the spike recovery.
- On form 1 of the MS and MSD, the sum of the two aroclors is reported as AR1016, and the result of AR1242 is flagged with the qualifier "Y" to indicate the concentration is included in the AR1016 result.
- QC limits for AR1016 and AR1260 do not apply, because the spiking level was not a multiple of the sample concentration.
- Since only aroclors were analyzed, the initial calibrations and continuous calibrations for pesticides required by the ASP, were replaced by calibrations with AR1660. %D for all continuous calibrations were under 25%.
- %D is above 25% for TCX in AR124203 on column RTX-CLP.
- Four samples exceeded the calibration range for targeted analytes and were reanalyzed at a dilution. Both sets of data are reported.
- In dilutions of 1:10 and above, no surrogate recoveries are reported, because the surrogate spike is diluted out.
- AR1242 in the samples showed ratios of congeners different from those found in the standards, due to weathering. This bias has been taken into account for the selection of the quantification peaks, to obtain a representative average result.

TOB049 S25

SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/22/05 SDG NO.: TOB049

Page 2 of 2

- In samples with positive aroclors, low levels of other aroclors could be masked due to the overlap of patterns. These other aroclors are flagged with the qualifier X.
- In samples with high concentrations of AR1242, late AR1242 congeners are quantified "as" AR1254 and AR1260 due to the overlap of congeners. Unless the amount detected for AR1254 and AR1260 exceeds the amount of the anticipated AR1242 contribution, AR1254 and AR1260 are reported as not found with the qualifier "U" and "X".
- The qualifier "Z" is used for AR1254 in presence of higher levels of AR1242 to indicate that the result for AR1254 is biased high due to the overlap of patterns.
- Positives are reported to the practical detection limit of ½ of the reporting limits.
- A table of codes used for corrections and manual integration is presented before the sample reports.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

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Ursula Middel **Technical Manager**

SDG NARRATIVE FOR METALS ANALYSIS SAMPLES RECEIVED: 9/22/05 SDG NO.: TOB049

For Samples:

I13 (0-2)O4I13 (2-4)O4 (0-2)I13 (4-6)O4 (2-4)I13 (8-10)O9 (0-2)J11 (0-2)O9 (2-4) MS/MSDJ11 (2-4)O9 (4-6)J11 (4-6)O9 (8-10)J11 (8-10)P4 (8-10)FB49

One water sample and sixteen soil samples were received by H2M Labs, Inc. on 9/22/05 for select metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument, 245.1/245.5 with a Leeman HYDRA mercury analyzer and cyanide method 335.2.

Sample O9 (2-4) was utilized for QC analysis and reporting.

ICP run of 9/26/05 was utilized for all analysis except thallium. Thallium ICS A STD did not meet sptance criteria. Samples were reanalyzed for thallium on 9/30/05.

ICP run of 9/27/05 did not meet acceptance criteria and was not utilized for reporting.

ICP post spike samples were analyzed on 10/30/05.

Spike analysis did not reproduce within 75-125% for iron, lead, mercury and zinc. Since the sample value was greater than four times the spike concentration, post spikes and data qualifiers were not required.

Spike analysis did not recover within acceptance ranges for arsenic, cadmium, chromium and copper. The samples were post spiked, reanalyzed and recovered at 119.4% for arsenic, -10.4% for cadmium, 73% for chromium and 50.6% for copper. Associated data were reported flagged "N" on forms 1 and 5A.

Duplicate analysis did not reproduce within acceptance ranges for aluminum, barium, cadmium, calcium, chromium, copper, lead, nickel and zinc. Associated results were reported flagged "*" on forms 1 and 6.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

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Vincent Stancampiano Vice President

- Late Reported: October 6, 2005

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY SAMPLES RECEIVED: 9/22/05 SDG NO.: TOB049

For Samples:

 I13 (0-2)
 O4

 I13 (2-4)
 O4 (0-2)

 I13 (4-6)
 O4 (2-4)

 I13 (8-10)
 O9 (0-2)

 J11 (0-2)
 O9 (2-4) MS/MSD

 J11 (2-4)
 O9 (4-6)

 J11 (4-6)
 O9 (8-10)

 J11 (8-10)
 P4 (8-10)

 FB49

One water sample and sixteen soil samples were received by H2M Labs, Inc. on 9/22/05 for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Percent Moisture	ASTM D2216
Hexavalent Chromium	EPA 7196

Sample O9 (2-4) was utilized for duplicate and spike QC analysis and reporting.

Laboratory control standard (LCS) recovered within H2M in-house acceptance limits of 53.6-126%.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Vincent Stancampiano Vice President

H2M-LABS, INC.

SDG NARRATIVE FOR VOLATILES ANALYSES SAMPLES RECEIVED: 9/23/05 SDG #: TOB050

For Samples:

I14 (0-2) MS/MSD R2 (2-4) R4 (6-8) FB50

The above samples and blanks were analyzed for a specific list of volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the protocol, and no problems were encountered with sample analysis.

Sample I14 (0-2) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).

Low levels (less than the PQL) of methylene chloride was present in the soil method blank. This analyte was flagged with a "B" qualifier if present in the associated samples.

An "X" qualifier is applied to TIC's, which appear to be due to column bleed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Joann M. Slavin Senior Vice President

SDG NARRATIVE FOR SEMIVOLATILES ANALYSES SAMPLES RECEIVED: 9/23/05 SDG #: TOB050

For Samples:

FB50 I14 (0-2) MS/MSD R2 (2-4) R4 (6-8)

The above samples and field blank were analyzed for the TCL list of semivolatile analytes by EPA method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample I14 (0-2) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). All percent recoveries and RPD's were within QC limits.
- Pentachlorophenol exceeded 25% D in the continuing calibrations of 9/29/05 and 10/3/05.
- The matrix spike/matrix spike duplicate sample was re-extracted within holding times due to high percent recovery for the LCS for pentachlorophenol. Pentachlorophenol is still high in the LCS at 118% recovery. This recovery is however within in-house QC limits. 2,4- dinitrotoluene is above the QC limits in the MSD. 2,4,6- tribromophenol is above the QC limits in the MSD. d14-4- terphenyl is low in the FB50.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

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Joann M. Slavin Senior Vice President

SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/23/05 SDG NO.: TOB050

For Samples:

I14 (8-10)	R4 (0-2)
R2 (0-2)	R4 (2-4)
R2 (2-4)	R4 (4-6)
R2 (4-6)	R4 (6-8)
R2 (8-10)	R4 (8-10)
	R2 (0-2) R2 (2-4) R2 (4-6)

The above soil samples and a field blank were prepared and analyzed for PCBs by EPA methods 3545 / 3510B and 8082.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- All soil samples were cleaned up with concentrated sulfuric acid and were subjected to sulfur cleanup with TBA.
- Sample I14 (0-2) was analyzed as the matrix spike/matrix spike duplicate.
- Positives are reported to the practical detection limit of ½ of the reporting limits.
- A table of codes used for corrections and manual integration is presented before the sample reports.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Ursula Middel Technical Manager

SDG NARRATIVE FOR METALS ANALYSIS SAMPLES RECEIVED: 9/23/05 SDG NO.: TOB050

For Samples:

FB50	R2 (4-6)
I14	R2 (8-10)
I14 (0-2) MS/MSD	R4 (0-2)
I14 (2-4)	R4 (2-4)
I14 (4-6)	R4 (4-6)
I14 (8-10)	R4 (6-8)
R2 (0-2)	R4 (8-10)
R2 (2-4)	

One water sample and fourteen soil samples were received by H2M Labs, Inc. on 9/23/05 for select metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument, 245.1/245.5 with a Leeman HYDRA mercury analyzer and cyanide method 335.2.

Sample I14 (0-2) was utilized for QC analysis and reporting.

Spike analysis did not recover within 75-125% for iron. Since the sample value was greater than four times the spike concentration, post spikes and data qualifiers were not required.

Duplicate analysis did not reproduce within acceptance ranges for chromium. Chromium data was reported flagged "*" on forms 1 and 6.

ICP serial dilution analysis did not reproduce within acceptance ranges for calcium, magnesium and zinc. Associated data were reported flagged "E" on forms 1 and 9.

The initial ICP run of 9/27/05 did not meet acceptance criteria. The samples were reanalyzed on 9/28/05 and utilized for reporting.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 7, 2005

Vincent Stancampiano Vice President

TOB050 S25

SDG NARRATIVE FOR WET CHEMISTRY SAMPLES RECEIVED: 9/23/05 SDG NO.: TOB050

For Samples:

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I14	R2 (4-6)
I14 (0-2) MS/MSD	R2 (8-10)
I14 (2-4)	R4 (0-2)
I14 (4-6)	R4 (2-4)
I14 (8-10)	R4 (4-6)
R2 (0-2)	R4 (6-8)
R2 (2-4)	R4 (8-10)
FB50	

One water sample and fourteen soil samples were received by H2M Labs, Inc. on 9/23/05 for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Percent Moisture	ASTM D2216
Hexavalent Chromium	EPA 7196

Sample I14 (0-2) was utilized for duplicate and spike QC analysis and reporting.

Hexavalent chromium laboratory control standard (LCS) recovery was not within 80-120%. The LCS recovery was within H2M in-house control limits of 53.6-126%.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 7, 2005

Vincent Stancampiano Vice President

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILES ANALYSES SAMPLES RECEIVED: 9/23/05 & 9/26/05 SDG #: TOB051

For Samples:

FB051 R1 (2-4) R1 (6-8) R1 (8-10) R3 (2-4) R3 (8-10) R5 (4-6) MS/MSD R5 (6-8) R6 (2-4) TB051 TB51

The above samples and blanks were analyzed for a specific list of volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the protocol, and no problems were encountered with sample analysis.

Sample R5 (4-6) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).

Low levels (less than the PQL) of methylene chloride was present in the soil method blank. This analyte was flagged with a "B" qualifier if present in the associated samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 10, 2005

Joann M. Slavin Senior Vice President

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SDG NARRATIVE FOR SEMIVOLATILES ANALYSES SAMPLES RECEIVED: 9/23/05 & 9/26/05 SDG #: TOB051

For Samples:

FB051 R1 (6-8) R3 (2-4) R5 (4-6) MS/MSD R5 (6-8)

The above water samples and field blank were analyzed for the TCL list of semivolatile analytes by EPA method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample R5 (4-6) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). The matrix spike / matrix spike duplicate sample was re-extracted, within holding times, due to high percent recovery for the LCS for pentachlorophenol. Pentachlorophenol is still high in the LCS at 118% recovery. This recovery is however within in-house Q.C. limits. Pentachlorophenol had a low percent recovery in the matrix spike duplicate sample hence a high RPD.
- Pentachlorophenol exceeded 25% D in the continuing calibrations of 9/29/05 and 10/3/05.
- The surrogate standard 4-terphenyl-d14 was low in sample FB051.
- The TIC erucylamide was present in the water method blank. This analyte was flagged with a "B" qualifier if present in the associated samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 10, 2005

Joan M. Slavin Senior Vice President

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SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/23/05 & 9/26/05 SDG NO.: TOB051

For Samples:

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R1 (8-10)	R5 (4-6) MS/MSD
R3 (0-2)	R5 (6-8)
R3 (2-4)	R5 (8-10)
R3 (4-6)	R6 (0-2)
R3 (8-10)	R6 (2-4)
R5 (0-2)	R6 (4-6)
R5 (2-4)	
	R3 (0-2) R3 (2-4) R3 (4-6) R3 (8-10) R5 (0-2)

The above soil samples and a field blank were prepared and analyzed for PCBs by EPA methods 3545 / 3510B and 8082.

All QC data and calibrations met the requirements of the method, unless listed below. The following should be noted:

- All soil samples were cleaned up with concentrated sulfuric acid and were subjected to sulfur cleanup with TBA.
- Sample R5 (4-6) was analyzed as the matrix spike/matrix spike duplicate.
- Since only aroclors were analyzed, the initial calibrations and continuous calibrations for pesticides required by the ASP, were replaced by calibrations with AR1660. %D for all continuous calibrations were under 25%.
- In samples with positive aroclors, low levels of other aroclors could be masked due to the overlap of patterns. These other aroclors are flagged with the qualifier X.
- Positives are reported to the practical detection limit of ½ of the reporting limits.
- A table of codes used for corrections and manual integration is presented before the sample reports.

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Ursula Middel Technical Manager

SDG NARRATIVE FOR METALS ANALYSIS SAMPLES RECEIVED: 9/23/05 & 9/26/05 SDG NO.: TOB051

For Samples:

R3 (4-6)
R3 (8-10)
R5 (0-2)
R5 (2-4)
R5 (4-6) MS/MSD
R5 (6-8)
R5 (8-10)
R6 (0-2)
R6 (2-4)
R6 (4-6)

One water sample and nineteen soil samples were received by H2M Labs, Inc. on 9/23/05 and 9/26/05 for select cyanide and metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument, 245.1/.5 with a Leeman HYDRA mercury analyzer and cyanide method 335.2.

Sample R5 (4-6) was utilized for QC analysis and reporting.

Spike analysis did not recover within 75-125% for iron. Since the sample value was greater than four times the spike concentration, post spike and data qualifiers were not required.

Spike analysis did not recover within acceptance ranges for manganese. The sample was post spiked, reanalyzed and recovered at 102.7%. Manganese data was reported flagged "N" on Forms 1 and 5A.

Duplicate analysis did not reproduce within acceptance ranges for chromium, iron and zinc. Associated data were reported flagged "*" on Forms 1 and 6.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 10, 2005

Vincent Stancampiano Vice President

TOB051 A13

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H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY SAMPLES RECEIVED: 9/23/05 & 9/26/05 SDG NO.: TOB051

For Samples:

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FB051	R3 (4-6)
R1	R3 (8-10)
R1 (0-2)	R5 (0-2)
R1 (18-20)	R5 (2-4)
R1 (2-4)	R5 (4-6) MS/MSD
R1 (4-6)	R5 (6-8)
R1 (6-8)	R5 (8-10)
R1 (8-10)	R6 (0-2)
R3 (0-2)	R6 (2-4)
R3 (2-4)	R6 (4-6)

One water sample and nineteen soil samples were received by H2M Labs, Inc. on 9/23/05 & 9/26/05 for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Hexavalent chromium	EPA SW7196
Percent Moisture	ASTM D2216

Sample R5 (4-6) was utilized for duplicate and spike QC analysis and reporting.

Hexavalent chromium laboratory control sample (LCS) recovered within calculated acceptance limits of 53.6 - 126%.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 10, 2005

Vincent Stancampiano

Vice President

TOB051 A14

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H2M LABS, INC.

SDG NARRATIVE FOR VOLATILES ANALYSES SAMPLES RECEIVED: 9/27/05 & 9/29/05 SDG #: TOB052

For Samples:

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28-30 R1 48-50 R1 FB52 R3 (30-32) R3 (48-50) MS/MSD R6 (6-8) R6 (8-10) R6 (28-30) R6 (48-50) TB TB52

The above samples and blanks were analyzed for a specific list of volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the protocol, and no problems were encountered with sample analysis.

Sample R3 (48-50) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).

Low levels (less than the PQL) of methylene chloride was present in the soil method blank. This analyte was flagged with a "B" qualifier if present in the associated samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

Joann M. Slavin Senior Vice President

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H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILES ANALYSES SAMPLES RECEIVED: 9/27/05 & 9/29/05 SDG #: TOB052

For Samples:

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FB52 R3 (48-50) MS/MSD R6 (6-8)

The above samples and field blank were analyzed for the TCL list of semivolatile analytes by EPA method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample R3 (48-50) was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). 2,4-dinitrotoluene is above the Q.C. limits in both the matrix spike and the matrix spike duplicate.
- Pentachlorophenol is above the Q.C. limits in LCS-14932 but within in-house Q.C. limits.
- Pentachlorophenol exceeded 25%D in the continuing calibration of 9/30/05 and 10/3/05. 4-methylphenol exceeded 25% D in the continuing calibration of 9/30/05
- An "X" qualifier is applied to TIC's which appear to be due to column bleed. The water method blank contained two TIC's. These analytes are flagged with a "B" qualifier if present in the associated sample.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

Joaph M. Slavin Senior Vice President

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SDG NARRATIVE FOR PCB ANALYSES SAMPLES RECEIVED: 9/27/05 & 9/29/05 SDG NO.: TOB052

For Samples:

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R3 (18-20)	R6 (28-30)
R3 (30-32)	R6 (38-40)
R3 (38-40)	R6 (48-50)
R3 (48-50) MS/MSD	R6 (58-60)
R3 (58-60)	R6 (6-8)
R6 (20-22)	R6 (8-10)
	R3 (30-32) R3 (38-40) R3 (48-50) MS/MSD R3 (58-60)

The above soil samples and a field blank were prepared and analyzed for PCBs by EPA methods 3545 / 3510B and 8082.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- All soil samples were cleaned up with concentrated sulfuric acid and were subjected to sulfur cleanup with TBA.
- Sample R3 (48-50) was analyzed as the matrix spike/matrix spike duplicate.
- Positives are reported to the practical detection limit of ½ of the reporting limits.
- A table of codes used for corrections and manual integration is presented before the sample reports.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Vd h

Ursula Middel Technical Manager

SDG NARRATIVE FOR METALS ANALYSIS SAMPLES RECEIVED: 9/27/05 & 9/29/05 SDG NO.: TOB052

For Samples:

28-30 R1	R3 (48-50) MS/MSD
38-40 R1	R3 (58-60)
48-50 R1	R6 (20-22)
58-60 R1	R6 (28-30)
FB52	R6 (38-40)
R3	R6 (48-50)
R3 (18-20)	R6 (58-60)
R3 (30-32)	R6 (6-8)
R3 (38-40)	R6 (8-10)

One water sample and seventeen soil samples were received by H2M Labs, Inc. on 9/27/05 and 9/29/05 for select cyanide and metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA61E Trace ICP instrument, 245.1/.5 with a Leeman HYDRA mercury analyzer and cyanide method 335.2.

Sample R3 (48-50) was utilized for QC analysis and reporting.

Spike analysis did not recover within 75-125% for iron. Since the sample value was greater than four times the spike concentration, post spike and data qualifiers were not required.

Spike analysis did not recover within acceptance ranges for antimony and selenium. The sample was post spiked, reanalyzed and recovered acceptably. Antimony and selenium data was reported flagged "N" on Forms 1 and 5A.

Duplicate analysis did not reproduce within acceptance ranges for aluminum, arsenic, chromium, iron, lead and zinc. Associated data were reported flagged "*" on Forms 1 and 6.

ICP run of 10/4/05 was utilized for reporting all analytes except thallium. Continuous calibration verification (CCV4) did not meet acceptance criteria for thallium. Samples were reanalyzed for thallium along with the post spike samples on 10/5/05.

ICP serial dilution analysis of sample R3 (58-60) did not meet acceptance criteria for aluminum, potassium and zinc. Associated data were reported flagged "E" on Forms 1 and 9.

No other problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

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Vincent Stancampiano Vice President

TOB052 S37

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SDG NARRATIVE FOR WET CHEMISTRY SAMPLES RECEIVED: 9/27/05 & 9/29/05 SDG NO.: TOB052

For Samples:

28-30 R1	R3 (48-50) MS/MSD
38-40 R1	R3 (58-60)
48-50 R1	R6 (20-22)
58-60 R1	R6 (28-30)
FB52	R6 (38-40)
R3	R6 (48-50)
R3 (18-20)	R6 (58-60)
R3 (30-32)	R6 (6-8)
R3 (38-40)	R6 (8-10)

One water sample and seventeen soil samples were received by H2M Labs, Inc. on 9/27/05 & 9/29/05 for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Hexavalent chromium	EPA SW7196
Percent Moisture	ASTM D2216

Sample R3 (48-50) was utilized for duplicate and spike QC analysis and reporting.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

Vincent Stancampiano Vice President

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H2M LABS, INC.

SDG NARRATIVE FOR VOLATILES ANALYSES SAMPLES RECEIVED: 10/4/05 SDG NO.: TOB053

For Samples:

CAMW5 MS/MSD FB53 TB

The above sample and blanks were analyzed for a specific list of volatile organics by EPA method 8260B in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the protocol, and no problems were encountered with sample analysis. The following should be noted:

- Sample CAMW5 was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).
- The RSD of the initial calibration exceeded 20.5% for one analyte, but met the limit of 40%.
- %D for one analyte in the CCV of 10/7/05 exceeded 25%, but met the acceptance limit of 40%.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jdd

Ursula Middel Technical Manager

SDG NARRATIVE FOR SEMIVOLATILES ANALYSES SAMPLES RECEIVED: 10/4/05 SDG #: TOB053

For Samples:

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CAMW5 MS/MSD FB53

The above sample and field blank were analyzed for the TCL list of semivolatile analytes by EPA method 8270C in accordance with the NYSDEC ASP, Rev. 10/95.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample CAMW5 was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). Acenaphthene had a high RPD.
- Phenol had a 23% recovery (lower limit 25%) and 4-nitrophenol had a 19% recovery (lower limit 22%) in the LFB-14991.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 12, 2005

Joann M. Slavin Senior Vice President

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