

**Remedial Investigation Report
Former Allegany Bitumens Belmont
Asphalt Plant
Brownfield Cleanup Program
Site # C902019
5392 State Route 19
Amity, Allegany County, New York**

Prepared for:

New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

Prepared on behalf of:

Blades Holding Company, Inc.
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Prepared by:

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July 2011



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July 29, 2011
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**RE: Remedial Investigation Report
Brownfield Cleanup Program Site # C902019
Former Allegany Bitumens Belmont Asphalt Plant
5392 State Route 19, Amity, New York**

Dear Tony:

On behalf of Blades Holding Company, Inc., Stantec Consulting Services Inc. (Stantec), has prepared this Remedial Investigation Report for the former Allegany Bitumens Belmont Asphalt Plant, located at 5392 State Route 19 in the Town of Amity, Allegany County, New York. An Interim Remedial Measures Work Plan will be submitted under separate cover in the near future to address the findings of this Remedial Investigation.

Should you have any questions or require further information, please do not hesitate to call.

Sincerely,

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Executive Summary

This report documents the activities, methods and results of the Remedial Investigation (RI) of the Former Allegany Bitumens Belmont Asphalt Plant Site (Site). The RI was performed pursuant to the Brownfield Cleanup Agreement (BCA) with the owners of the Site, Blades Holding Company, Inc., that was executed by the New York State Department of Environmental Conservation (NYSDEC or the Department) on October 12, 2010. The RI was completed by Stantec in accordance with the Remedial Investigation Work Plan (RIWP) for the Site that was approved by NYSDEC on October 19, 2010.

The scope of the RI was expanded during the course of its implementation at the request of NYSDEC and in response to the preliminary findings from the activities specified in the RIWP. Supplemental investigation activities were performed at the request of NYSDEC and to delineate the extent of contamination found during the initial investigation. The primary areas of increased scope were additional delineation of the extent of soil and groundwater contamination in the area surrounding the laboratory building, additional targeted surface soil and test pitting in the vicinity of the asphalt plant, and additional test pit excavations to delineate the extent of materials found along the berms located along the northern and eastern property lines.

As a result of the completion of these investigation activities, the RI has accomplished the purposes of remedial investigations required by New York State's Brownfield Cleanup Program. The RI has defined the nature and extent of contamination at the Site; provided the information necessary to perform a qualitative assessment of related potential human health and ecological exposures, as documented herein; and provided the information necessary for the implementation of Interim Remedial Measures that will be performed in the next phase of the BCP activities for the Site.

Summary of Findings

The RI has resulted in the following findings: (1) chlorinated VOC impacts are present in subsurface soil and shallow groundwater in the vicinity of the laboratory building; (2) petroleum impacts are present in surface and subsurface soil in two localized areas in the vicinity of the asphalt tanks; and (3) debris is present in the perimeter berms however, no significant "contamination" issues were identified. With the exception of the proposed removal and/or demolition of the various equipment and structures that will be needed to facilitate addressing items 1 and 2 above, no other conditions were identified during the RI that require further investigation or remedial measures.

Chlorinated VOCs in the Former Laboratory Building Area

Passive soil gas sampling results showed an area of chlorinated VOC detections extending northward from the laboratory building area. The chlorinated VOC detections correspond with

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soil and groundwater detections of these compounds in and downgradient from the laboratory building area.

All subsurface soil sample sampling results from the well and soil borings were well below the Commercial and Industrial SCOs. Exceedances of Part 375 POGW SCOs (see Section 4.3 for a discussion of use of the POGW SCOs) were reported for chlorinated VOCs in subsurface soil samples from one monitoring well and four soil borings just to the east and southeast of the laboratory building, including BS-2, BS-4, B-16, B/MW-23, and B-24. Trichloroethene (TCE) concentrations in the laboratory source area ranged up to 35 ppm. Concentrations decrease significantly away from the source area. The area with known exceedances of SCOs is approximately 55 ft in the north - south direction and 30 ft in the east - west direction. Based on PID readings and soil sampling results, the estimated depth of the contaminated soil interval in the source area is approximately 4 to 15 ft bgs.

Shallow overburden groundwater flow was found to flow away from the northwest portion of the Site (Laboratory Building area) toward the north, northeast, east and southeast. Variations in water levels of up to 3.75 ft were observed seasonally.

Two rounds of groundwater sampling were conducted with the first round occurring in January - February 2011. Exceedances of groundwater standards were reported for chlorinated VOCs at four locations at, and downgradient from, the laboratory source area (BS-2, BS-4, MW-23, and MW-25) with total chlorinated ethene and ethane concentrations, predominantly TCE, ranging up to 12.4 ppm. The highest concentrations were at BS-2 and BS-4.

The second round of groundwater sampling was conducted in April 2011. Exceedances of groundwater standards were reported for chlorinated VOCs at four locations at, and downgradient from, the laboratory source area (BS-2, BS-4, MW-8, and MW-25) with total chlorinated ethene and ethane concentrations, predominantly TCE, ranging up to 0.1 ppm. The highest concentrations were again at BS-2 and BS-4. VOC concentrations reported during the second round of sampling were generally lower than those observed during the first round of sampling. The reduction of VOC concentrations is believed to be related to the higher water table at the time of the second round of sampling.

A deep overburden monitoring well installed in the Laboratory Building source area, and the on-Site water supply well, were both found to be free of Site related groundwater contamination. Therefore, there was no evidence that the chlorinated VOCs contaminants found in the shallow overburden in the vicinity of the laboratory building have migrated downward.

Petroleum Impacts in the Asphalt Tank Area

Passive soil gas sampling results showed an area with low level concentrations of petroleum VOCs near the asphalt tanks and the maintenance garage..

Low level petroleum VOC detections below the Commercial and Industrial Part 375 SCOs at TP-14, located near the asphalt tanks, correspond to observations of asphalt pieces with an oily

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appearance from approximately 3 ft bgs, photoionization detector (PID) readings up to 804 parts per million (ppm) and a strong petroleum odor, as well as detections of petroleum VOCs in the PSG survey in this area. No impacts were reported in soil and groundwater samples from the maintenance garage area, including at B/MW-9, B-19, and B-20.

To the west of TP-14 and the asphalt storage tanks, low level detections of petroleum VOCs were found in soils at B/MW-27 and B-31. These detections were below SCOs and correspond to near surface (0.3 to 1.1 ft bgs) elevated PID readings (41 to 58 ppm) and petroleum odors observed during logging of soils. Overall, there were no petroleum related Part 375 SCO exceedances among the subsurface soil samples.

Further, no petroleum related compounds were reported in any of the groundwater wells at the Site, including downgradient of the above locations, hence there is no indication that the petroleum related soil impacts have affected groundwater.

Perimeter Berms

Conditions encountered during test pit excavations included native soils, aggregate stockpiles, solid and non-solidified asphalt materials, remnants of a small fire, and debris. The only exceedance of Part 375 Commercial and Industrial SCOs, in the 12 berm samples analyzed, was for one SVOC at TP-10. Benzo(a)pyrene, exceeded Commercial and Industrial SCOs. Pieces of asphalt were found throughout this test pit. At the base of the test pit, near where the sample was collected, there was an impenetrable hard surface that was most likely asphalt. Therefore, this one PAH exceedance is believed to be related to the presence of the asphalt and is thus not considered to be of concern.

Conclusions and Recommendations

Chlorinated solvents, primarily TCE, have impacted a limited volume of soil to the east and southeast of the former laboratory building. TCE was used at the former laboratory building for testing asphalt products as required by NYSDOT. This impacted soil has in turn resulted in a slightly larger, but limited, shallow chlorinated solvent impacted groundwater plume that has shown seasonal variability. This plume has partially extended off-Site to the northeast a limited distance and at low concentrations.

Use of petroleum products in former asphalt production activities has resulted in shallow soil impacts in two areas; near-surface soil around the above ground asphalt storage tanks and near surface soil west of the asphalt storage tanks. No groundwater impacts have been identified in association with the petroleum impacted soils.

A variety of asphalt and debris was encountered in the berms located along the northern and eastern property boundaries. However, only one SCO exceedance was reported in the 12 samples analyzed from the berms and this finding likely resulted from the presence of asphalt.

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Interim remedial measures are needed to address Site-related chlorinated VOC impacts in soil in the former laboratory building source area, and petroleum impacts in soil around the above ground asphalt storage tanks and west of the asphalt tanks. In addition, remedial measures are needed to address the shallow chlorinated VOC groundwater impacts in the former laboratory building area. These impacts should be addressed in the near future (Fall 2011) to minimize the risk of further impact to groundwater both on-site and off-site.

In order to implement these interim remedial measures, it is recommended that the buildings and equipment be removed to allow for easy access to impacted areas. This will also facilitate evaluation of any additional impacts that may be present beneath these structures.

Given that the only exceedance of SCOs within the bermed areas involved a PAH in a sample collected adjacent to asphalt, which was the likely source, no additional remedial measures are warranted for the berms. Instead, it is recommended that institutional controls be implemented to limit potential future disturbances of these areas.

Stantec is submitting an Interim Remedial Measures Work Plan, under separate cover, to accompany this RI Report such that the necessary remedial measures can be implemented in the near future (Fall 2011).

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1.0 Introduction

On behalf of Blades Holding Company, Inc. (Blades), Stantec Consulting Services Inc. (Stantec) has prepared this report on the Remedial Investigation (RI) of the Former Allegany Bitumens Belmont Asphalt Plant located at 5392 State Route 19 in the Town of Amity, Allegany County, New York (Site).

The RI was completed pursuant to a Brownfield Cleanup Agreement (BCA) for the Site between Blades Holding Company, Inc. and the New York State Department of Environmental Conservation (NYSDEC or Department). The BCA was executed by the Department on October 12, 2010. The Site is designated by the Department as Brownfield Cleanup Program Site #C902019.

The RI was performed in accordance with the Remedial Investigation Work Plan (RIWP) dated September 2010, which was revised October 11, 2010 in response to Department comments. The RIWP was approved by the Department on October 19, 2010.

1.1 GOALS AND OBJECTIVES

The goals of the RI were to determine surface and subsurface characteristics of the Site, assess the source(s) and determine the nature and extent of contamination on or migrating from the Site, and identify migration pathways and potential receptors. The information developed by the RI allows for the selection of the remedial measures that will attain conditions which are protective of commercial or industrial use of the Site and are protective of public health, the environment, and fish and wildlife resources.

The following objectives for the RI were specified in the RIWP:

- to determine the nature and extent of contamination of soil and shallow groundwater in, and migration from, the area where volatile organic compound (VOC) contamination was identified in the Phase II ESA in the vicinity of the laboratory building.
- to investigate potential soil and/or groundwater impacts in areas not previously sampled, including:
 - deep groundwater at the existing on-Site water supply well;
 - soil near electrical transformers;
 - soil and shallow groundwater near the oil house and maintenance garage;
 - soil and shallow groundwater near the asphalt tanks;
 - soil and shallow groundwater near the asphalt plant;
 - soil in the basin below the aggregate hoppers;
 - soil in the berms along the north and east property boundary;

- surface and subsurface soil across the Site; and
 - shallow groundwater around the perimeter of the Site.
- depending on the outcome of the above activities, investigate the following areas and concerns with a second phase of field work, if applicable. The scope of this work was to be determined based on the results of the activities listed above.
 - deep groundwater impacts;
 - impacts to the surface water pond to the northeast of the laboratory building; and
 - impacts to the surface water, sediment and surface soil in and along Tuckers Creek.
- in the event that any of the site's buildings were to be reused, investigate the potential for soil vapor intrusion. However, since there are no plans for building reuse (they are proposed to be razed), this objective was not applicable.

1.2 SCOPE OF WORK

To achieve the objectives of the RI, the following investigations were completed:

- completion of a background information survey;
- installation, retrieval and laboratory analysis of passive soil gas (PSG) modules in three areas, including near (8 PSG modules) and downgradient from (12 PSG modules) the laboratory building and surrounding the oil storage house and maintenance garage (8 PSG modules);
- collection of 14 surface soil/former surface soil samples;
- excavation of 18 test pits with logging and field screening of soils and the selection of 22 subsurface soil samples for laboratory analysis of potential chemical contaminants;
- installation of 16 overburden monitoring wells (15 shallow and one deep);
- installation of 12 additional overburden test borings (installed without monitoring wells);
- continuous soil sampling at well and test boring locations, with logging and field screening of the soil samples and selection of 34 sample intervals for laboratory analysis of potential chemical contaminants;
- geotechnical laboratory analysis of two soil samples from one well boring;
- development of all 16 newly installed wells;
- three full rounds of groundwater level measurements at all on- and off-Site wells, including new and existing monitoring wells that had been installed during the previously

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reported Phase II Environmental Site Assessment (Phase II ESA) and the existing on-Site water supply well during an initial round of groundwater sampling for laboratory analysis of potential chemical contaminants;

- video inspection of the existing on-Site water supply well;
- collection of groundwater samples from the 16 RI wells, the three Phase II wells, and the one existing water supply well;
- collection of groundwater samples from seven of the RI wells and three Phase II wells during a second round of groundwater sampling;
- hydrogeologic testing of six wells to determine the hydraulic conductivity of the shallow and deep overburden;
- laboratory analysis of field duplicates, field and laboratory blanks, and matrix spike/matrix spike duplicates (MS/MSD) collected for quality assurance and quality control (QA/QC) purposes; and
- survey of the locations and elevations of wells and, where appropriate, other sampling locations.

Subsurface conditions observed during the investigation activities were documented in accordance with standard procedures and the RIWP. Project soil and water samples were submitted to a state-certified environmental laboratory, TestAmerica Laboratories, Inc. (TestAmerica) of Buffalo, New York for chemical analysis of comprehensive lists of potential Site contaminants. Laboratory analytical results were reviewed by an independent (third party) data validator, ChemWorld Environmental, Inc. (ChemWorld) of Rockville, Maryland or Data Validation Services, Inc. (DVS) of North Creek, New York, using standard data-usability evaluation criteria. Passive soil gas samples were submitted to Beacon Environmental Services Inc. of Bel Air, Maryland (Beacon).

The RI activities also included implementation of the comprehensive site-specific Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP) and Community Air Monitoring Program (CAMP) that were specified in the RIWP.

Interpretation of RI field data and laboratory analytical results and qualitative assessments of the potential impacts of Site conditions on human health and fish and wildlife resources are presented in this report. The project data that were used to evaluate and interpret Site conditions and the nature and extent of contamination at the Site includes the field and laboratory analytical data from the RI activities listed above as well as all Phase II ESA field and laboratory data. The field logging and screening data from Phase II borings and wells and the laboratory analytical data reports for Phase II ESA samples were included in the Phase II Report that was submitted to Department as part of the Brownfield Cleanup Program (BCP)

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Application. Phase II soil and groundwater sampling locations and data are included in the RI report figures and summary tables.

1.3 REPORT CONTENTS AND ORGANIZATION

Section 1 has described the purpose, objectives, and scope of the RI. Section 2 presents a description of the Site and its setting and a summary of the background information that was the basis for the RI. Section 3 describes the field investigations and laboratory analysis activities performed during the RI. Section 4 describes the results of the RI sampling, monitoring and analytical activities. Section 5 describes the results of the third party validation of project analytical data. Section 6 presents qualitative assessments of the human health and ecological risks posed by the Site conditions. Section 7 presents a summary of the findings of the RI along with conclusions and recommendations. References are listed in Section 8.

Report figures and tables are also presented. The figures include a Site location map, a Site topographic survey, sample location maps, groundwater elevation contour plans, and maps showing the extent of Site-related contamination. The tables include comprehensive summaries of the project activities and field and lab data.

The report contains the following appendices:

- Logs of test pits,
- Logs of monitoring wells and borings,
- Summary of a water well video survey,
- Aquifer testing data,
- Investigation derived waste documentation,
- Geotechnical data,
- Laboratory reports for RI analytical data,
- Laboratory report for the passive soil gas survey,
- Data Usability Summary Reports (DUSR) for RI analytical data, and
- Fish and wildlife resource documents.

2.0 Background Information

2.1 SITE LOCATION, DESCRIPTION, AND SETTING

The Site is a 4.9[±] acre parcel located at 5392 State Route 19 in the Town of Amity, Allegany County, New York (see Figure 1). The property (Tax Parcel No. 171-1-60) is currently occupied by a non-operational asphalt plant. Operations at this asphalt plant ceased in 2005. Redevelopment of the Site is anticipated to involve a commercial or industrial use.

According to a Site-specific topographic survey, the subject property elevation ranges from approximately 1,380 feet above mean sea level (amsl) along Route 19 to approximately 1,369 ft amsl on the eastern property line, just to the west of the Tuckers Creek embankment (Figure 2). Surface water drainage from the former asphalt manufacturing area is towards a basin adjacent to the feeder hoppers for the asphalt plant aggregate conveyor, and this basin acts as a detention pond. An embankment several to 15 feet high along the northern and eastern property lines limits runoff to the creek from the remaining, gravel-surfaced areas of the Site.

The Site is located in the Genesee River valley approximately 1,200 feet west of the river. The Site is elevated approximately 15 feet above the valley floor, and is separated from the current flood plain of the river by a levee and railroad embankment located approximately 750 feet east of the property. The FEMA flood zone designation for the property indicates that the property is outside the 500 year flood zone and is protected from 100 year floods by a levee. The channelized segment of Tuckers Creek that is located adjacent to the eastern boundary of the property is designated as being subject to a 1% annual chance of flooding within the stream channel. Surface water bodies and wetlands in the area of the Site are shown on Figure 3. No critical wildlife habitats of threatened or endangered species are known to be present within ½ mile of the property.

2.2 LAND USE

2.2.1 Current Site and Surrounding Land Uses

The subject property is improved with a non-operational asphalt plant, control tower, truck scale, scale house, office and laboratory building, oil storage house, and maintenance garage. A gravel-surfaced aggregate stockpile area is located south of the asphalt manufacturing plant structures. Paved parking and staging areas are provided adjacent to the asphalt plant and the laboratory and maintenance garage buildings. These features are shown on Figure 2.

The Site is accessible to, and from, existing local and regional infrastructure including highways and gas and electric service. Public water supply and municipal sewer services are not currently available in the immediate area of the property. However, the 2008 Allegany County Comprehensive Plan shows the corridor along Route 19 north of Belmont which includes the property as a proposed future water service area and proposed future sewer service area.

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The Site has a water well that supplied water for Site operations and on-Site sanitary uses until plant operations ceased in 2005. The well is located in the approximate center of the north half of the Site adjacent to the northeast corner of the asphalt plant structure. Surrounding properties rely on private wells for their water supply. Additional information on water supply wells located in the vicinity of the Site is presented below in Sections 3.1 and 4.1.

Land use in the surrounding area is dominated by agricultural uses. Agricultural fields occupy the adjacent property to the east. Agricultural farm houses and barns and single family non-farm residences are located along Route 19 to the north and southeast of the property and along Friendship Hill Road (Tuckers Corner Road) to the west of the property. The property located immediately opposite from the Site on the west side of Route 19 is also owned by Blades, and is the site of a vehicle and equipment maintenance shop and small office building which are both currently not in use.

The northern limits of the Village of Belmont are located approximately one-half mile southeast of the property. Undeveloped wooded property is located to the southwest of the property along Tuckers Creek and its small tributaries. These land uses are all visible on the aerial photographic image presented in Figure 3.

No schools or federal, state, county, municipal or community parks or recreational areas are known to be present in the immediate vicinity of the property.

2.2.2 Past Uses of the Site and Adjoining Properties

Detailed information on, and documentation of, past Site and property uses can be found in Stantec's December 2009 Phase I Environmental Site Assessment (ESA) report, which was presented as an attachment to the July 2010 BCP Application for the Site.

The Site was used for agricultural purposes or was undeveloped prior to 1960. In March 1960, A.L. Blades and Sons, Inc. (now known as Blades Holding Company, Inc.) acquired the property and then conveyed the property to its affiliate Allegany Bitumens, Inc.

An asphalt plant was constructed at the Site by Allegany Bitumens, Inc. circa 1960 and was operated by Allegany Bitumens, Inc. and, after a 1995 merger, by A.L. Blades and Sons, Inc. until A.L. Blades and Sons, Inc. discontinued the asphalt plant operations in 2005. Since 2005, the facility has been unoccupied, although buildings and stationary asphalt manufacturing equipment remain.

Industrial Processes and Chemical Uses Associated with Former Asphalt Plant Operations at the Site

The Site was used as a hot mix asphalt manufacturing plant, and ancillary operations such as maintenance of plant equipment and as a laboratory for asphalt and aggregate testing.

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Asphalt plant operations that involved the storage or use of significant quantities of petroleum products and asphalt materials included the following:

- hot-mix asphalt production, and
- operational equipment maintenance and related petroleum storage (motor oil, lubricating oil, and grease).

Ancillary operations involving the on-Site use of de minimis quantities of petroleum products or asphalt included:

- aggregate storage and handling,
- truck and heavy equipment parking,
- facility maintenance,
- laboratory testing operations, and
- office and administrative operations.

The primary heating fuel for plant operations was natural gas. A gas company metering and valve building was located between the western property boundary and the Route 19 roadway.

Asphalt Production

One non-operational “batch” hot-mix asphalt production plant is located on-Site. The manufacturing equipment is installed on reinforced concrete slabs, with independent structural footings for stationary equipment.

The former operational equipment included the following:

- an asphalt tank heater,
- two 20,000 gallon aboveground asphalt tanks,
- one 15,000 gallon aboveground asphalt tank,
- a hot oil burner for heating the asphalt lines,
- an aggregate dryer,
- a dust collector for the aggregate dryer,
- material handling and conveyance systems,

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- a heated asphalt mixing drum,
- a truck loading station,
- a scale house, and
- a control tower.

Except for the burner for the asphalt tank heater, as noted below, the equipment listed above remains in place.

Aggregate materials (sand and gravel) were stockpiled to the south of the asphalt plant. The aggregate was sorted, weighed and mixed in accordance with NYSDOT or customer specifications. The aggregate was dried in a natural-gas-fired rotary dryer. The dryer was equipped with a fabric filter (“baghouse”) air emission control system. The baghouse dust was recycled into the production process. No waste dust was generated that required off-Site disposal. The dried aggregate was weighed and conveyed to the mixing drum.

Pre-heated asphalt was dosed and applied to the aggregate via spray nozzles inside the rotating mixing drum. The hot asphalt mix was conveyed from the drum to the truck loading hopper. The loaded trucks were tarped and weighed prior to leaving the Site. All process waste was recycled back into the production process. The process generated no wastes that required off-Site disposal as solid waste.

The asphalt tanks have internal heating coils and external insulation. Heat was provided by external heaters equipped with heat exchangers. The burner for asphalt tank heaters had multi-fuel capabilities and could burn either natural gas or processed waste oil fuel. During active plant operations, the burner was located next to the asphalt tanks; it is currently disconnected and staged at the north end of the property.

The three horizontal steel asphalt tanks at the plant have been empty since the plant operations were discontinued in 2005. The asphalt tanks are located on concrete slabs and footings. The concrete slabs and base provide an impermeable barrier under the tanks, but no other engineered secondary containment is provided. Facility personnel were unaware of any significant releases or reportable oil spills associated with the asphalt plant.

Maintenance Operations

Routine maintenance and minor repair of facility equipment was performed in a maintenance garage located east of the asphalt mixing operation equipment. The building was also utilized for garaging the asphalt plant loader and for storing construction-related equipment.

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The maintenance garage is a single-story metal-sided building with a concrete slab-on-grade floor. There is no basement. The maintenance garage floor is in good structural condition with minor surficial oil staining.

Small quantities of motor oil, hydraulic oil and used oil were stored in and dispensed from drums or 5-gallon containers stored in the oil product storage shed, which is adjacent to the northwest corner of the maintenance garage. Staining was apparent on the concrete floor of the oil storage shed at the time of the Phase I ESA site visit.

Used oil and spent parts washer solvent were generated as wastes in the past, but according to facility personnel no wastes from this shop have been generated since the plant became non-operational.

The only wastewater discharge from the garage was domestic sewage from a restroom that discharged to an on-Site septic system. There are no obvious indications of other discharges to the septic system in this building. There are no sumps, floor drains or pits in the garage nor were there any indications of historic sumps, floor drains or pits.

The maintenance garage restroom is located at the southwest corner of the garage building. The septic system for the restroom is located just south of the restroom.

Laboratory Operations

A former on-Site laboratory is present in the northwest corner of the property northwest of the asphalt manufacturing area. The laboratory has not been used since 2005. When the plant was operational, the laboratory was utilized for testing asphalt products for compliance with NYSDOT or client specifications.

Trichloroethylene (TCE) was used as a solvent in the testing operations. The solvent was used to remove asphalt from blacktop samples to allow for testing of the sand and gravel components of the blacktop. A NYSDOT test specification that required the use of TCE for this purpose was the reason TCE was used at the Site. Solvent use in the laboratory was largely replaced by an ignition oven process in the laboratory in the early 1980s, and thereafter the test process that involved TCE was very rarely used.

The minor amount of asphalt residue from each test that involved use of solvent was accumulated in a 5-gallon pail which when full was removed from the Site for off-Site disposal by an environmental services firm, which also removed and disposed of spent solvent. Blades installed a TCE distillation system in the lab in 1987, and thereafter no waste solvent material was generated from the use of TCE.

A 55-gallon supply drum containing 10-15 gallons of TCE was observed inside the laboratory at the time of Stantec's Phase I ESA site visit. Blades have since disposed of the drum in accordance with applicable regulations.

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The laboratory building had its own septic system which reportedly received domestic sanitary waste from the sinks and toilet in the laboratory and from a bathroom in the adjacent scale house. The septic system was located in the area south of the lab building and east of the scale house.

At the time of the Phase I ESA site visit, several empty containers and a drum that had been modified for use as a heater or drier were observed on a small outdoor asphalt pad located adjacent to the east end of the laboratory building. Plant personnel indicated that the pad had not been used for outdoor storage of solvent or waste containers. No visible evidence of past releases was apparent at the time of the site visit.

Site Utilities and Other Features

Electric and natural gas service was provided to the subject property by Rochester Gas and Electric (RG&E). The on-Site buildings were heated by electric or natural gas heaters, and natural gas was the primary fuel for the asphalt plant process heaters described above.

Three pole-mounted electrical transformers owned by Rochester Gas and Electric (RG&E) were observed on the subject property during the Phase I ESA site visit. The pole-mounted transformers were not labeled as to PCB content. At the time of the property visit, no visible evidence of transformer leakage, staining or distressed vegetation was observed around the pole-mounted transformers. The transformers were removed from the property by RG&E during the timeframe of the RI field work activities.

There is no public water supply service for the immediate area of the Site. The property is just north of the service area for the Village of Belmont public water supply service. Bottled water was used for drinking water at the Site. The Site has a water well that supplied water for site operations and on-Site sanitary uses until plant operations ceased in 2005. The primary operational use for the water supply was for a wet wash dust control system used in the 1960s until the early 1970s. This use was discontinued when a bag house dust control system was installed in the early 1970s. The other operational use of the water supply was for occasional rinsing of the bed of aggregate supply trucks to remove sand and gravel from the inside corners at the front of the trailer prior to loading with asphalt.

No process wastewater was generated at the Site. As indicated above, domestic sanitary wastewater at the property was discharged to the two septic systems located at the laboratory building and plant maintenance garage.

A three-inch gas line to the asphalt plant from the former off-Site gas meter house located in the Route 19 right of way, the two septic systems described above, and underground water lines leading from the on-Site water well to the lab building, scale house bathroom, and maintenance garage bathroom are the only underground utility features known to be present at the Site.

2.3 GEOLOGIC AND HYDROGEOLOGIC SETTING

According to mapping prepared by the United States Department of Agriculture (USDA) Soil Conservation Service, as reported by Environmental Data Resources (EDR), the majority of the native soils on the subject property are identified as Chenango gravelly loam. This soil is described as deep, well drained to excessively drained sands and gravels. The Surficial Geologic Map of New York - Niagara Sheet (Cadwell, and others, 1986) maps the overburden deposits beneath the subject property as fluvial sand and/or gravel along the western property line and recent alluvial deposits of the Genesee River floodplain beneath the eastern two thirds of the property.

Phase II and RI test pit and soil boring data indicate varying thicknesses of fill overlying a few to several feet of brown to yellowish brown silts/fine-grained sands and gravels. Below this are alternating layers of gray to brownish gray clayey silt/fine-grained sand and silty clay that gets finer with depth.

According to the Geologic Map of New York (Rickard and Fisher, 1970), bedrock underlying the subject property is identified as shale and siltstone of the Canadaway group.

The water table at the Site and just to the north of the Site is relatively shallow. During the RI, the water table was generally found to occur within 0 to 15 ft of ground surface. Shallow overburden groundwater was found to flow toward the north, northeast, east and southeast from the northwest portions of the Site. RI groundwater level monitoring data are described in detail in Section 4 of this report.

2.4 PREVIOUS INVESTIGATIONS AND ACTIVITIES

2.4.1 Phase I Environmental Site Assessment

A Phase I ESA was completed by Stantec in December 2009 in connection with real estate due diligence activities. The Phase I ESA identified one recognized environmental condition (REC) at the Site:

- No records or knowledge of releases were identified during the Phase I ESA. However, given the potential for historic releases of TCE in the area of the laboratory building septic system and outdoor asphalt-paved pad attached to the east end of the laboratory building, that area was identified as an REC, and it was recommended that a soil boring program be conducted in that area.

2.4.2 Phase II Environmental Site Assessment

Based on the findings of the Phase I ESA, Stantec conducted a Phase II ESA in December 2009. Four soil test borings and four temporary monitoring wells (BS-1 through BS-4) were installed for the purposes of collecting soil and groundwater samples adjacent to, and downgradient from, the former laboratory building and its septic system. The Phase II ESA test

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boring and monitoring locations are shown on Figure 4. Results indicated the presence of TCE and related VOCs in an area northeast of the laboratory building. These VOCs were detected in shallow soil and groundwater at levels above NYSDEC's soil cleanup objectives and groundwater standards. Indications of soil contamination were encountered at depths of 5 to 10 feet below ground surface (bgs) in test borings BS-2 and BS-4, and TCE was detected in soil samples from these borings at concentrations of up to 37.5 parts per million (ppm). The water table at the Site was encountered at depths of 9 to 10 feet below ground surface, and TCE was detected in BS-2 and BS-4 groundwater samples at concentrations of 0.6 to 2.1 ppm, respectively. Traces of TCE (0.001 to 0.008 ppm) were detected in the groundwater samples from the BS-1 and BS-3 locations.

3.0 Remedial Investigation Program

This section of the report presents a description of the investigative activities performed, methods used and procedures followed during the RI. Investigation results are described in Section 4.

The RI field program was conducted over the course of numerous field events starting in October 2010 and concluding in June 2011. The locations investigated and dates and purposes of each of the field events are summarized in Table 1. All sampling locations are shown on the Site Plans presented on Figures 4 or 5. This includes sampling locations investigated during the RI as well as those investigated during the Phase II ESA conducted by Stantec in December 2009. A detailed description of the Phase II ESA program activities and procedures was presented in Stantec's Phase I/Phase II ESA Report, which was included in the Brownfield Program Application, and is not repeated herein.

The procedures followed while conducting the RI field program were performed in accordance with the Department-approved RIWP. Deviations from, and additions to, the program specified in the RIWP are described below in the relevant sections of the report and are summarized in Table 2.

Samples submitted for laboratory analytical testing of potential contaminants and other physical parameters were submitted to TestAmerica of Buffalo, New York. Tables 3 and 6 respectively summarize the soil and groundwater samples collected, including sample dates, sample depths (where applicable), sample analytical parameters, and quality assurance/quality control (QA/QC) samples. As per the RIWP, approximately 20-30% of the originally planned samples were analyzed for a full suite of analyses. Third-party usability reviews of the analytical data reports generated by TestAmerica were performed by ChemWorld or DVS. Passive soil gas samples were submitted to Beacon of Bel Air, Maryland.

3.1 BACKGROUND INFORMATION SURVEY

A background information survey was conducted consisting of the following tasks:

- Assessment of Area Water Wells, Surface Water Use and Underground Infrastructure

A well survey was performed to identify the location, use, and construction of private water supply wells located within $\frac{1}{8}$ mile upgradient and $\frac{1}{4}$ mile down and side gradient from the Site. The RIWP called for the survey to be completed within a $\frac{1}{2}$ mile radius; however, with NYSDEC's concurrence (via an e-mail from Anthony Lopes on March 29, 2011), the survey distances were modified. The range for upgradient locations was limited to $\frac{1}{8}$ mile because there was no reason to believe that upgradient wells have been impacted. The range for the down and side gradient locations was limited to $\frac{1}{4}$ mile due to the lack of impacts in groundwater samples from wells on the downgradient side of the Site. Per NYSDEC's request, a Fact Sheet was mailed with the well and surface water surveys. A Fact Sheet was prepared

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and submitted to NYSDEC. The final version of the Fact Sheet was provided by NYSDEC on April 20, 2011.

Information was sought from adjacent landowners to identify both surface water or groundwater uses on their properties, including ponds located to the north of the Site. The well and surface water surveys were mailed to nearby property owners on April 25, 2011. Combined well and surface water surveys were sent to six adjacent property owners. Responses were received from five of these owners. An attempt was made to reach the remaining property owner by phone, but the phone number was no longer in service. Stantec stopped by their home on June 15, 2011, but no one answered the door.

In addition to the surveys sent to the adjacent property owners, well only surveys were sent to eleven nearby property owners. Responses were received from seven of these. Two more responses were obtained via phone conversations. Numerous unsuccessful attempts were made to reach the remaining two property owners via phone and/or fax.

A utility record search was performed to obtain information on any underground utilities that exist along Route 19 or other areas adjacent to the Site by submitting a design call ticket to Dig Safely New York on October 18, 2010. Available information on the on-Site gas and water lines was reviewed with the former plant manager, Larry Mitchell, on October 25, 2010. The available information was evaluated to determine whether underground infrastructure features represent potential pathways for contaminant migration.

The results of the well and surface water surveys and the utility record search are summarized in Section 4.1.

- Physical Conditions Assessment

A literature and records search was performed to obtain information to supplement the information presented in the RIWP on the soils, geology, hydrogeology, topography and drainage patterns at the Site and in the surrounding area. This information, information from the Phase II ESA borings, and the information on subsurface conditions collected during the RI field activities have been used to develop a conceptual model of the physical conditions at the Site, as described throughout this report.

- Hazardous Materials Survey

A hazardous materials survey was conducted on January 31, 2011. This included a building interiors survey and inspection of tanks and process piping. The findings of the survey are described in Section 4.1.

3.2 SURFACE SOIL SAMPLING

Fourteen surface soil samples were collected from October 25 through 28, 2010 and on February 3, 2011 (see Table 3) at locations planned in the RIWP and at locations added based on NYSDEC requests. Nine surface soil samples were planned and collected from locations distributed across the Site (SS-3 through SS-5 and SS-7 through SS-12) and five surface soil samples were collected from targeted locations:

- SS-6 was a planned location that was collected from the basin adjacent to the aggregate hoppers.

- SS-13 was a location added to the scope of work in response to requests from Bill Murray, the original project manager, of NYSDEC on October 27, 2010 about a compressor unit near the asphalt plant. The sample was taken just down slope of a hose attached to the compressor.
- SS-14 was a location added to the scope of work in response to requests from Bill Murray of NYSDEC on October 27, 2010 about black stained soils accumulated on top of the concrete pad for the empty liquid asphalt storage tanks. The sample was taken just south of the tanks.
- SS-15 was a location added to the scope of work in response to a request from Bill Murray of NYSDEC on October 27, 2010 about staining and potential leaking from a blower at the former asphalt plant. This sample was taken as a three point composite, including stained soils on top of the concrete pad on the west side of the blower, topsoil just to the west of the concrete pad (shown jointly as SS-15A on Figure 4), and topsoil from the south side of the blower (shown as SS-15B on Figure 4) from under a stained section of the equipment.
- A drum containing burned materials was observed near the northeast corner of the laboratory building. The drum appeared to be half of a 55-gallon steel drum. The bottom was present, but not connected to the rest of the drum. The materials in the drum were placed in a new 55-gallon steel drum, sampled and disposed of with the other investigation derived waste (IDW) (see Section 3.14). Per the request of Bill Murray of NYSDEC on January 6, 2011, the surface soil under the drum was also sampled (SS-16).

During the execution of the surface soil sampling and test pit excavations on October 25, 2010, Bill Murray of NYSDEC suggested that surface soil samples paired with test pits in areas with asphalt cover or aggregate piles be collected from the native soils under the asphalt or aggregate pile. He also suggested that several samples need not be taken of the aggregate stockpile materials. Samples were collected of the aggregate stockpile materials at locations such as SS-7 and SS-12. As a result of these suggestions:

- At SS-1/TP-1, there was a 1.4 foot cover of asphalt. Samples were taken from the gravel basal materials under the asphalt and from the potential top of native materials per the recommendation of Bill Murray of NYSDEC. These samples were categorized as test pit samples. As a result, a surface soil sample was not taken at this location.
- At SS-2/TP-2, there were aggregate stockpile materials. The test pit was excavated to the deepest depth possible (10 feet below ground surface (ft bgs)); however, aggregate was still present and it did not appear that native materials were reached. As a result, and because the aggregate materials were sampled elsewhere, no surface soil sample was collected at this location.
- The surface soil sample at SS-3 was collected at 6-7 ft bgs at the apparent top off native soils.
- The location of SS-5/TP-5 was covered in asphalt (0-0.4 ft bgs). This was underlain by coarse grained gravel (0.4-1.4 ft bgs) that was too coarse to submit to the laboratory. As a result, SS-5 was collected from potentially native silty clays underlying the gravel.

The remaining surface soil samples were collected as planned from 0-1 or 0-2 inches below vegetative cover, with the exception of SS-12. At SS-12, aggregate stockpile gravels which were too coarse to submit for laboratory analysis were found at 0-1 inches (in) bgs. As a result,

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the surface soil sample was collected from finer sand and gravel aggregate materials found just under this at 1-3 in bgs.

Samples were collected with a stainless steel spade, which was decontaminated with an Alconox wash and DI rinse between each location. Appropriate QA/QC samples were taken, including a field duplicate sample, a matrix spike/matrix spike duplicate (MS/MSD) and a rinsate blank. The rinsate blank was collected by pouring deionized water provided by the laboratory over the decontaminated stainless steel spade used to collect the surface soil samples.

Sampling parameters were as outlined in the RIWP for the planned samples. Parameters for the added locations were agreed upon with NYSDEC. All parameters are indicated on Table 3.

3.3 TEST PIT EXCAVATION AND SUBSURFACE SOIL SAMPLING

Eighteen test pits were excavated from October 26 through 29, 2010 at locations planned in the RIWP (TP-1 through 12), locations added based on NYSDEC requests (TP-13 through TP-15), and locations added to further define the extent of materials encountered in the planned test pits (TP-16 through TP-18) (see Figure 4). The test pits were excavated by TREC Environmental Inc. (TREC) utilizing an excavator. Prior to initiating the excavation program, TREC contacted Dig Safely New York to locate publically owned utilities in these areas. After the completion of each test pit, it was backfilled with the soils that had been removed from it.

Similar to surface soil sampling locations SS-13 through SS-15, test pit locations TP-13 through TP-15 were added in response to requests from Bill Murray of NYSDEC on October 27, 2010 respectively about a compressor unit near the asphalt plant, black stained soils accumulated on top of the concrete pad for the empty liquid asphalt storage tanks, staining and a potential leaking blower near the former asphalt plant. TP-13 was excavated down slope of a hose attached to the compressor. TP-14 was excavated at the northwest corner of the asphalt tanks. TP-15 was excavated to the south of the potentially leaking blower. It was not possible to dig directly to the west of the blower as the concrete pad under it extended 3 feet beyond the equipment.

Test pit locations TP-16 through TP-18 were added to further define the extent of the materials observed at TP-7 through TP-10 and TP-12.

The RIWP called for one subsurface soil sample to be taken for laboratory analysis from each of the test pits TP-1 through TP-5 and a minimum of three subsurface soil samples from test pits TP-6 through TP-12. More samples were taken than were called for in the RIWP in order to help define the extent of potential impacts. One to three samples were taken from each test pit, with the exception of TP-6 and TP-16 where no samples were taken as no impacts were observed. A total of 22 test pit soil samples were collected. Table 3 details the sample locations, depths and analytical parameters. Appendix A contains detailed logs of the materials observed in the test pits.

Samples were collected from the excavator bucket, which was decontaminated with a high-pressure washer in between each test pit location. All decontamination water was containerized

in 55-gallon drums (see Section 3.14). Appropriate QA/QC samples were taken, including two field duplicate samples, a MS/MSD and a rinsate blank. The rinsate blank was collected by pouring deionized water provided by the laboratory over the excavator bucket.

3.4 PASSIVE SOIL GAS SURVEY

PSG surveys were conducted in three areas, including two areas surrounding and downgradient from the laboratory building and one surrounding the oil house and maintenance garage (see Figure 5). The PSG surveys were performed to map the potential distribution of VOCs in shallow soil gas.

The first PSG survey consisted of eight PSG modules placed in the vicinity of the lab building (PSG-1 through PSG-8). The second PSG survey included 12 PSG modules (PSG-9 through PSG-20) in a grid pattern that was designed to extend beyond the likely laboratory building source area to the areas north, east and south of the BS-2 and BS-4 test borings to attempt to determine the downgradient extent of contamination in shallow groundwater.

The third PSG survey area covered the area of the oil storage house and maintenance garage. It consisted of eight PSG modules (PSG-21 through PSG-28) surrounding these buildings.

Certain modules were moved slightly in the field from planned locations. Modules PSG-17 and PSG-18 were moved to avoid placement on steep slopes. Modules PSG-24 to PSG-26 were moved slightly to avoid obstructions encountered at the planned locations.

Appropriate QA/QC samples were taken, including two field duplicate samples as well as one trip blank per survey area.

The surveys were performed using PSG sampling modules provided by Beacon Environmental Services Inc. of Bel Air, Maryland. Modules were installed and retrieved per the manufacturer's instructions. As per the typically recommended PSG timeframe, the modules were placed on November 2, 2010 and allowed to passively absorb compounds for approximately two weeks prior to retrieval on November 15, 2010. For the laboratory building area survey, chlorinated VOCs were targeted and for the oil house/maintenance garage area, chlorinated and petroleum VOCs were targeted. The samplers were analyzed by Beacon using EPA Method 8260.

Portions of the PSG survey areas near the laboratory building were on a neighboring property. Access from the neighboring landowner was sought and obtained to allow for installation of the PSG samplers and later test borings and monitoring wells.

3.5 MONITORING WELL AND BOREHOLE INSTALLATIONS, AND SUBSURFACE SOIL SAMPLING

3.5.1 Monitoring Well and Borehole Overview

Soil borings and monitoring well installations proceeded over the course of two field events, as outlined in Table 1. All borings and well locations are shown on Figure 4.

During the initial drilling event in November and December 2010, all of the shallow monitoring wells and borings planned in the RIWP were installed, including borings/monitoring wells B/MW-5 through B/MW-14 and borings B-15 through B-21. Based on the PSG results, the planned locations of MW-5 through MW-7 were modified from those outlined in the RIWP in a November 23, 2010 e-mail to Bill Murray at NYSDEC. At this time, an additional downgradient well was added to the program. This well was initially proposed to be referred to as either MW-5A or MW-5B in the November 23, 2010 e-mail. The location specified for MW-5B was selected in the field as too much surficial water was present at the location specified as MW-5A. Once installed, this well was referred to as MW-22.

During the drilling program, elevated photoionization detector (PID) readings were observed at B-16. This prompted the addition of B/MW-23, B-24, and B/MW-25 to the drilling program.

Based on the groundwater and soil sampling results from the previously installed wells, two additional shallow wells (B/MW-26 and B/MW-27) were proposed in a January 26, 2011 e-mail to NYSDEC to refine the understanding of shallow groundwater impacts. In this e-mail the location and depth of the deep boring/monitoring well planned in the RIWP was also specified. These wells, along with soil borings B-29 to B-32, were installed on February 1-4, 2011. The soil borings were installed to refine understanding of the soil impacts in the area of the laboratory building.

The January 26, 2011 e-mail specified that the “deep well is proposed in the assumed downgradient direction from the lab building with respect to deep groundwater flow. It is not anticipated that this well needs to be installed at the same depth as that of the production well since no chlorinated VOCs were reported in the production well. Therefore, we are proposing to install the deep well at a depth of between 40 and 75 ft and we propose to continuously monitor soil samples from the deep boring. We propose to select the monitoring interval based on the presence of a silt or clay layer or the presence of an interval with elevated vapor readings. If neither of the conditions described above are encountered prior to reaching a depth of 75 ft., we propose to install the well at 75 ft.” During installation of the soil boring at MW-28D, fine soils consisting of clayey silts and silty clays, which got finer with depth were observed. Two geotechnical soil samples were collected from this borehole which demonstrates the finer nature of the deeper soils (see Sections 3.5.2 and 4.2.1). Due to the presence of these fine soils and the absence of field impacts in the borehole soils (which were later supported by laboratory data), it was felt that drilling deeper than 40 feet was not necessary. Stantec shared with Mr. Bill Murray at NYSDEC our observations of soil conditions and the subsequent plan to stop drilling at 40 feet in the field on February 1, 2011.

3.5.2 Well and Boring Installation and Soil Sampling Procedures

Prior to each drilling mobilization, the drilling contractor, Nothnagle Drilling Inc. (Nothnagle), contacted Dig Safely New York to locate publicly owned utilities in these areas. In addition, any additional knowledge of the location of underground utilities was reviewed.

Hollow-stem auger drilling methods were used to advance borings for installing monitoring wells. As detailed above, 15 shallow overburden monitoring wells (B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25 through B/MW-27) were installed. The shallow monitoring wells were generally screened across the water table. This was not possible in the wetland areas to the north of the Site where the water table was at the ground surface (B/MW-5, B/MW-8 and B/MW-22).

One deep overburden well (MW-28D) was installed at a depth of 40 ft bgs.

All monitoring well borings were installed using a rotary drill rig, 4¼-inch hollow stem augers and Macrocore samplers.

Twelve soil borings (B-15 through B-21, B-24, and B-29 through B-32) were installed with a rotary drill rig using direct push technology and Macrocore samplers.

Continuous soil samples were collected at each monitoring well and boring location. Soil samples were screened with a calibrated PID for the presence of volatile organic vapors. Soil samples were also visually observed for indications of staining, oils, fill, etc. Soil boring logs, including soil descriptions and PID readings, are presented in Appendix B.

As per the RIWP, amidst the four borings around the oil storage house and maintenance garage, only three samples were required. Thus, as no impacts were observed at B-21, no sample was collected. At all other boring and monitoring well locations, based upon an evaluation of PID readings, visual or olfactory evidence of impacts, and the position of the water table, Stantec selected at least one soil sample for analysis.

A total of 34 soil samples were selected for lab analysis. Table 3 summarizes the analytical parameters for each sample. QA/QC samples collected included one duplicate and one MS/MSD sample.

In addition, as mentioned above, two representative soil samples were collected from the monitoring well boreholes for geotechnical analysis of particle size distribution by Method ASTM D422.

At the completion of the boring for each groundwater monitoring well, a 2-inch diameter, schedule-40 PVC well with 10-ft of 0.010-inch slot well screen was installed. Sand packs consisted of fine sand extended up to 2.5 ft above the well screens. The sand packs were capped with bentonite seals and the remaining annulus was grouted to the surface. A lockable stick-up protective casing was installed at surface grade in a Portland cement concrete mix. An

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inner well cap was installed on the well riser. Well construction details can be found in Table 4 and on the borehole and well installation logs presented in Appendix B.

The drilling rig and all appurtenances were decontaminated prior to use, between borehole locations, and after final use (see Section 3.13). The decontamination procedure involved the use of a high-pressure washer. All soil cuttings and decontamination water were containerized in 55-gallon drums (see Section 3.14).

3.6 UPGRADE OF PHASE II ESA MONITORING WELLS

Protective casings were installed on Phase II ESA monitoring wells BS-2 through BS-4. In some cases, the inner casing was extended prior to installing the outer protective casing.

3.7 MONITORING WELL DEVELOPMENT

On December 7-9, 2010 and February 4-7, 2011, after allowing the bentonite seals to hydrate and expand for a minimum of 48 hours, the newly installed groundwater monitoring wells were developed in an effort to cleanse them of suspended sediments so that turbidities were reduced to the maximum extent practicable and to allow representative formation water to enter the well. The monitoring wells were developed with either inertial pumping, dedicated polyethylene bailers or a decontaminated submersible pump. Turbidity was monitored during development. In general, at least five well volumes were removed. As agreed with Mr. Bill Murray of NYSDEC on December 7, 2010, in the cases where there were plans to sample the well for metals, attempts were made to either reduce the turbidity to less than 50 nephelometric turbidity units (NTUs) or to remove one to two 55-gallon drums of water in an effort to get turbidity levels down. If water was added during drilling, three times the volume added was removed during development. All well development water was containerized (see Section 3.14).

3.8 GROUNDWATER ELEVATION MEASUREMENT

Three rounds of water level measurements were conducted at the Site during the course of the RI on January 4, 2011, February 22, 2011, and April 20, 2011. The water level measurements are recorded on Table 5.

3.9 GROUNDWATER SAMPLING

Groundwater sampling was conducted a minimum of two weeks after the completion of well development to ensure that the groundwater conditions had stabilized sufficiently. All 16 newly installed wells (B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25 through B/MW-27, and MW-28D) and three previously existing wells (BS-2 through BS-4) were sampled through the course of two groundwater sampling events on January 4-7, 2011 and February 22, 2011 (see Figure 4 and Tables 1 and 6). A second round of groundwater sampling was conducted at 10 monitoring wells (BS-2 through BS-4, B/MW-5 through B/MW-8, B/MW-22, B/MW-23, and B/MW-25) on April 20-21, 2011.

Where possible, the wells were purged and sampled utilizing low stress/low flow methods with a peristaltic pump with dedicated polyethylene tubing. This was not possible at wells where recharge did not occur quickly enough to maintain a steady water level during low flow pumping. At these locations, the wells were purged on a volumetric basis. Table 7 summarizes the purging and sampling method.

General water quality field parameters (i.e., pH, temperature, specific conductance, oxidation reduction potential, and dissolved oxygen) were monitored during low flow purging using a flow through cell. In accordance with the RIWP, purging was continued until field parameters stabilized. During purging on a volumetric basis, general water quality field parameters (i.e., pH, temperature, and specific conductance) were monitored over the course of at least three wells volumes or until the well went dry. If the well did not go dry, in accordance with the RIWP, purging was continued until field parameters stabilized. Field parameter monitoring results are summarized on Table 7. Turbidity was also monitored and in all cases where metals were sampled for, a turbidity of less than 50 NTUs was obtained prior to sampling the metals portion. At MW-25, the metals sample portion was collected the morning after purging to allow for the fines to settle out of suspension (see Table 7 for details). All well purge water was containerized (see Section 3.14).

During all sampling rounds, samples from each of the wells listed above were analyzed for TCL VOCs using EPA Method 8260B. As outlined in Table 6, select wells were analyzed for additional parameters. QA/QC samples included daily trip blanks for TCL VOCs, two duplicates and two MS/MSDs.

3.10 WATER SUPPLY WELL INSPECTION AND SAMPLING

The Site has a water supply well that has been out of use since operations at the Site were discontinued in 2005. As shown on Figure 4, the well is located approximately 200 feet east-southeast of the laboratory. No information on well construction was available. Therefore, the existing pump and piping were removed from the well on November 29, 2010 in order to allow for a video inspection of the well to be conducted on December 6, 2010 by Willey Well Drilling, Inc. (WWD) of Sardinia, NY. Appendix C contains WWD's summary report of the video survey. The well was found to be 180 ft deep with a 6-inch diameter casing. It is cased along its entire depth with the casing apparently driven into gravel, which forms the base of the well. The casing joints (approximately every 20 ft) appear to be in good condition.

The groundwater from the well was sampled on December 7, 2010. The RIWP called for purging the well of three volumes of water prior to sampling. However, the well was found to be larger in diameter and deeper than anticipated, and thus purging three well volumes would have produced a large volume of water; therefore, the well was purged and sampled with low flow methods with the approval of NYSDEC (December 7, 2010, telephone conversation confirmed via e-mail). General water quality field parameters (i.e., pH, temperature, specific conductance, oxidation reduction potential, and dissolved oxygen) were monitored during low flow purging

using a flow through cell. Purging was continued until field parameters stabilized. The groundwater sample was analyzed for the full suite of parameters (see Table 6).

3.11 HYDRAULIC CONDUCTIVITY TESTING

Testing was performed on six newly installed wells to determine the hydraulic conductivity of the saturated overburden horizons in the immediate vicinity of each well. The wells tested, which represent various depth intervals and locations across the Site, included MW-9, MW-11, MW-12, MW-23, MW-25, and MW-28D.

The tests consisted of the insertion in and/or removal from the water column of a solid slug in order to displace the water level in the well and for monitoring of the recovery of the water level toward a static level. Each test was accomplished by recording water level changes with a pressure transducer (In-Situ Inc. Level TROLL 700) following the insertion (falling head test) and/or withdrawal (rising head test) of the slug. After field tests were completed, the slug test data were analyzed with commercially available software (AQTESOLV) in order to determine approximate hydraulic conductivity values. Results are summarized on Table 8, and data reports for each test are presented in Appendix D.

3.12 SURFACE WATER SAMPLING AND SEDIMENT AND SURFACE SOIL SAMPLING ALONG TUCKERS CREEK

The RIWP called for an evaluation of soil and shallow groundwater monitoring results in order to determine if it was necessary to sample sediment or surface soils along Tuckers Creek (which flows northeast along the eastern Site boundary), or surface water from a pond located approximately 200 feet northeast of the laboratory building and from Tuckers Creek.

Shallow groundwater flow directions vary, depending on the location on-Site, from the north, to the northeast, to the east, to the southeast. Groundwater locations downgradient of the Site and also just upgradient of the pond (i.e. MW-7) and Tuckers Creek (i.e. MW-13 and MW-14) had low level or non-detect analytical results. In addition, soil samples taken at these downgradient locations did not show impacts. When presenting our first round of groundwater results to NYSDEC, we proposed one deep well and two additional shallow well locations within the source area. However, given the absence of significant soil and shallow groundwater impacts at the Site's downgradient locations, Stantec indicated in an e-mail to Mr. Bill Murray at NYSDEC on January 26, 2011, that no further investigation was needed in these downgradient locations. During a January 28, 2011 follow-up telephone conversation with Mr. Murray, he indicated he had no problems with our proposed well placement.

3.13 DECONTAMINATION

Sampling methods and equipment were chosen to maximize the use of dedicated equipment and thereby minimize the need for decontamination. All non-dedicated equipment was decontaminated prior to and following each use. Decontamination of drilling and excavating equipment was accomplished with a high-pressure washer. Decontamination of smaller

equipment (such as trowels) consisted of a wash with Alconox solution and a water rinse. All decontamination water was containerized in 55-gallon drums (see Section 3.14).

3.14 INVESTIGATION DERIVED WASTE

All drill cuttings, decontamination water, decontamination pad plastic, development water, and purge water were containerized in 55-gallon drums and securely stored on-Site until they were transported off-Site for disposal on June 15, 2011 by Veolia Environmental Solutions.

Appendix E contains disposal documentation for the 33 drums of non-hazardous waste generated during investigation activities.

3.15 SAMPLING LOCATION SURVEY

Each monitoring well installed during the Phase II ESA and the RI was surveyed for horizontal and vertical control by a licensed Stantec surveyor. Other sampling locations were either surveyed for surveyed for horizontal and vertical control by a licensed Stantec surveyor or for horizontal control with a GeoXT, which is a handheld global positioning system (GPS) locating instrument with sub-meter accuracy.

3.16 FIELD QUALITY CONTROL SAMPLES

Sections 3.2 through 3.5 and 3.9 and Tables 3 and 6 summarize the field QA/QC samples collected during the field investigation. Field QC samples that were collected included field duplicates, trip blanks, rinsate blanks, and MS/MSDs. Field duplicates and MS/MSDs were collected at a rate of one per 20 field samples per media. Trip blanks were used for aqueous and soil gas matrices only. A trip blank accompanied each aqueous shipment of water or soil gas samples for VOC analysis. One rinsate blank was collected for each piece of non-dedicated sampling equipment used. It was collected by pouring deionized water over decontaminated equipment. All data were reviewed by Ms. Andrea Schuessler of ChemWorld or Ms. Judy Harry of DVS. Section 5 contains a discussion of the data usability review.

4.0 RESULTS

4.1 BACKGROUND INFORMATION RESULTS

4.1.1 Assessment of Area Water Wells and Surface Water Use

The responses to the well and surface water surveys mailed to nearby property owners identified thirteen private wells, ranging from 20 feet deep driven or dug wells to 100 feet deep drilled wells. The majority of these wells are to the south and southeast of the Site. Well usage is typically for household use, but also for livestock. One natural spring was also identified that is used for household purposes. One property to the east of the Site contains a well that is owned by the Village of Belmont, which was previously identified in the Brownfield Cleanup Program Application. As stated in the Application, the well is located on the opposite side of the Genesee River approximately 1600 feet east of the northeast corner of the site. It is screened to depths of up to 24 feet in a shallow unconfined aquifer, and based on topographic information it appears that this aquifer would be recharged from upslope areas to the east of the wells.

Surface water described on the forms includes ponding during rain events on certain properties on the west side of Route 19 and previously identified ponds on the property just to the north of the Site. The use of the ponds on the property to the north of the Site was not identified by the property owner on the survey form; however, they indicated that they obtained their drinking water from a driven well located approximately 200 ft west of the ponds.

Based on background research, there is no public water supply service for the immediate area of the Site. The Site is just north of the service area for the Village of Belmont public water supply service. It is therefore presumed that surrounding properties that did not respond to the surveys rely on private wells for their water supply.

It appears very unlikely that private wells and surface water that are known or likely to be present on adjacent properties would be impacted by the groundwater contamination identified at the Site as downgradient monitoring wells had low or no detectable levels of contamination (see Figures 10 and 11).

No designated wellhead protection or groundwater recharge areas are known to be located in proximity to the Site. However, the Site and surrounding area is within the footprint of a "principal aquifer" identified by NYSDEC. Available information on mapping of primary and principal aquifers in the area by NYSDEC and the USGS indicate that the aquifer is a confined aquifer in deep gravel deposits that occur in the Genesee River valley. Nevertheless, as described below, currently available information indicates that there are no private or public off-Site water supply wells located in areas likely to be downgradient of the area of contamination identified at the Site.

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A map showing the location of water supply wells listed in government databases and located within one-half mile of the Site is presented on Figure 3. As shown on that map, the wells are located to the east of the Site on the opposite side of the Genesee River, to the northwest and cross-gradient to the Site or southeast and not directly downgradient of the Site related groundwater contaminant impacts.

Available database information indicates that the Village of Belmont public water supply service operates several other water supply wells at locations to the east and southeast of the Site. The available information appears to indicate that the closest wells to the east (the closest well is located on the opposite side of the Genesee River approximately 1600 feet east of the northeast corner of the Site) are screened to depths of up to 24 feet in a shallow unconfined aquifer. Based on topographic information, it appears that this aquifer would be recharged from upslope areas to the east of the wells. The other water supply wells located east and southeast of the Site appear to be deeper wells (90 to 202 feet deep) screened in the confined aquifer that underlies the Site. However, the topography of the area suggests that the recharge areas for these wells would also be located to the east or southeast, and therefore these wells appear to be located upgradient of the Belmont Asphalt Plant site.

A search of NYSDEC's online database of water well information was also made. (The search was performed using a search radius of 2 minutes of latitude and longitude.) The search identified three wells, all located $\frac{1}{4}$ mile or more west of the Site along Tuckers Corner Road. These wells are 36 to 161 ft deep wells screened in overburden sand and gravel. Topographic information indicates that each of these wells is located upgradient of the Site.

The available well information described above, and the sampling data collected as discussed in the following sections, indicate that there is no reason to suspect that the contamination detected on the Site would impact the documented water supply wells present in the area surrounding the Site.

4.1.2 Assessment of Underground Infrastructure

The utility record search identified the following potential utility holders in the area of the Site: Allegany County Department of Public Works (DPW), Fillmore Gas Company, National Fuel Gas, Rochester Gas and Electric, the Town of Amity, Verizon, and the Village of Belmont. Allegany County DPW does not keep records of utilities along Route 19 since it is a state roadway. Fillmore Gas Company indicated they have no underground utilities in close proximity to the Site. National Fuel marked their utilities in the vicinity of the Site and no markings were observed on-Site. With the possible exception of abandoned gas lines, Rochester Gas and Electric reported they do not have underground gas or electric services near the Site. The Town of Amity indicated that they have no underground utilities. The Village of Belmont is part of the Town of Amity and therefore they too have no underground utilities near the Site. Verizon reported they only have overhead lines in the vicinity.

Information on the on-Site utilities was obtained from the former plant manager, Larry Mitchell, on October 25, 2010:

- All electric and gas service to the Site had been disconnected. The gas lines previously ran from the gas meter house on Route 19 to the asphalt plant and also from the gas meter house north along Route 19 and then turning in to the laboratory building.
- The water lines from the former pump in the on-Site water supply well, ran from the well to the maintenance garage to the east of the pump and also from the well to the plant and from there toward the laboratory building.
- There are no storm or sanitary sewers on-Site. Sanitary waste was handled by septic systems.

As described below (Section 4.3.5), the groundwater contamination is limited to the vicinity of the laboratory building. Therefore, there is no indication that the utilities in the vicinity of the laboratory building have acted as a conduit to transport contamination off-Site or to other portions of the Site.

4.1.3 Hazardous Materials Survey

A hazardous materials survey was conducted on January 31, 2011, including a building interiors survey and inspection of tanks and process piping.

Throughout the Site's buildings and equipment, there is the potential for asbestos containing materials to be present. As a result, an asbestos survey is proposed to be completed. The potential also exists for universal wastes, such as mercury switches and fluorescent bulbs and ballasts, to exist at the Site. Besides asbestos and universal waste, potential hazardous materials throughout the different areas of the Site include:

- At the laboratory building:
 - Potential oils/greases within any equipment on Site
 - Various asphalt materials in 5 gallon buckets, quart paint cans, and small (\pm 500 milliliter [mL]) plastic bottles. The quantities of these items are limited. At the time of the survey, the materials that were liquid (or liquid-like) were frozen.
 - Miscellaneous chemicals (approximately one dozen containers 1 quart or smaller)
- At the control tower:
 - Power transformer
 - Electrical switch room, installed in approximately 2000
- At the maintenance garage:

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- Potential oils/greases within equipment
- At the oil house:
 - Oil staining on the floor
- At the asphalt tanks and plant:
 - Larry Mitchell, the former plant manager reported that the piping and tanks were drained to the extent possible. However, he stated that there is likely a minor amount of residual material in the tanks and piping that could not to be drained.

4.2 HYDROGEOLOGY**4.2.1 Geology**

Logs for Phase II ESA and RI soil borings and monitoring wells are presented in Appendix B. Phase II and RI test pit and soil boring data indicate varying thicknesses of surficial fill. The fill consists primarily of aggregate stockpiles, asphalt materials and debris. Aggregate stockpiles are primarily found on the western $\frac{1}{3}$ to $\frac{1}{2}$ of the Site and in berms along the eastern property boundary. Asphalt materials consist predominantly of small to large pieces of hard asphalt within and under the berms along the northern and western property boundary. Debris was found in some of the berms along the northern and eastern property boundaries. Further details on the depths and content of fill can be found in the test pit logs in Appendix A.

Under the fill material, native soils consist of four to eight feet of brown to yellowish brown silts/fine-grained sands and gravels with traces of clay. This is underlain by alternating layers of gray to brownish gray clayey silt/fine-grained sand and silty clay that gets finer with depth. Monitoring well logs show these materials to a depth of at least 40 ft bgs. Geotechnical soil samples were collected of these materials at two depth intervals in B/MW-28D. The geotechnical sample analysis results are found in Appendix F.

According to the Geologic Map of New York (Rickard and Fisher, 1970), bedrock underlying the subject property is identified as shale and siltstone of the Canadaway group.

4.2.2 Groundwater Elevation and Flow Direction

Water level measurements recorded during the three monitoring events performed during the RI are presented on Table 5. The data indicate that the water table across the Site ranges from at or near the ground surface down to approximately 15 ft bgs. Seasonal variation was observed in water level elevations with variations across the Site ranging from 0.5 to 3.75 ft higher in the spring (April 2011) than in the winter (January and February 2011).

Groundwater elevation contour maps for the Site developed from the data collected during the January 4, 2011, February 22, 2011, and April 20, 2011 monitoring events are presented on

Figures 6 through 8. Shallow overburden groundwater was found to flow away from the northeast portion of the Site. Flow is toward the north, northeast, east and southeast.

4.2.3 Hydraulic Conductivity

Hydraulic conductivity test results are summarized on Table 8 and presented in Appendix D.

Hydraulic conductivities for the shallow overburden wells ranged from 10^{-1} centimeters per second (cm/s) to 10^{-3} cm/s. These wells were screened across intervals that typically had gravels or cobbles and sands/silts at the top of the screen interval and clayey silts at the bottom of the screen interval. The range in values reflects these mixed screen interval lithologies and is reflective of variations in thickness of coarse versus fine intervals, as well as the coarseness of the coarser interval (i.e. whether, for example, the coarse interval consisted of cobbles or medium gravel).

The hydraulic conductivity for the deep overburden well was considerably lower than the shallow overburden wells, in the range of 10^{-5} cm/s. This is reflective of the fact that the deeper well was screened across an interval of silty clays and clayey silts.

4.3 SAMPLING AND ANALYTICAL RESULTS

Soil and water samples selected for laboratory analytical testing, including investigation and IDW samples, were submitted to TestAmerica in Buffalo, New York. Copies of the analytical data reports from TestAmerica are presented in Appendix G. Passive soil gas samples were submitted for laboratory analytical testing to Beacon in Bel Air, Maryland. A copy of the data report from Beacon is presented in Appendix H. In addition to the data report, supplemental contour figures prepared by Beacon are included at the end of Appendix H.

Analytical results for Phase II ESA and RI samples are summarized in Tables 9 to 12, which are organized by sample medium and type. Table 9 presents results for surface soil samples, Table 10 presents results for test pit subsurface soil samples, Table 11 presents results from borehole subsurface soil samples and Table 12 presents results from groundwater samples.

Soil results are compared to New York State Codes, Rules and Regulations (NYCRR) Part 375 Restricted Use Soil Cleanup Objectives (SCOs) for Commercial and Industrial Use. In order to be conservative, the subsurface soils from the boreholes are also compared to the Part 375 SCOs for the Protection of Groundwater (POGW). These borehole subsurface soil samples are compared to the POGW SCOs due to contraventions of the groundwater standards for chlorinated VOCs in the area of the laboratory building (See Section 4.3.5). However, pursuant to 6 NYCRR 375-6.5, the POGW SCOs may not be applicable because:

- the groundwater standard contravention is the result of an on-site source which will be addressed by an Interim Remedial Measures (IRM) program,

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- we expect that an environmental easement will be put in place for the Site which will restrict groundwater use;
- contaminated groundwater at the site is migrating off-site; but the IRM will include controls or treatment to address off-site migration, and
- as a result of the IRM, the groundwater quality will improve over time.

Groundwater results are compared to Class GA standards and guidance values listed in NYSDEC's Ambient Water Quality Standards and Guidance Values, Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Memorandum dated October 22, 1993, Reissued June 1998, and addenda dated April 2000 and June 2004.

All RI soil and water analytical data were reviewed by Ms. Andrea Schuessler of ChemWorld or Ms. Judy Harry of DVS. The ChemWorld and DVS data usability summary reports (DUSRs) are presented in Appendix I and discussed in Section 5.

Phase II ESA laboratory data reports were presented to the Department with the Phase I/Phase II ESA Report.

4.3.1 Surface soil

Fourteen surface soil samples were collected from locations distributed across the Site and from targeted locations for the parameters listed in Table 3. Analytical results are summarized in Table 9.

One VOC, methylene chloride, which is a common laboratory contaminant, was detected in the three surface soil samples submitted for VOC analysis and its concentration was well below the Commercial and Industrial SCOs in each sample.

Semivolatile organic compounds (SVOCs) were detected in two of the 14 surface soil sampling locations. At the two locations with detections, polycyclic aromatic hydrocarbons (PAHs) were detected at concentrations well below the Commercial and Industrial SCOs.

Pesticides were detected in two of the four surface soil samples submitted for analysis. Concentrations were well below the Commercial and Industrial SCOs.

No PCBs were detected in any of the four surface soil samples submitted for analysis.

Metals were detected in each of the four samples submitted for analysis. The only metals detected above Commercial and/or Industrial SCOs include calcium, iron, and magnesium. Each of these metals is a common naturally occurring metal whose presence in the samples is not considered to be Site-related concern.

4.3.2 Test Pits

Eighteen test pits were excavated across the Site, predominantly along the berms at the northern and eastern property boundaries, but also in the central portion of the Site (see Figure 4). As described in the test pit logs (see Appendix A), materials encountered included:

- Aggregate stockpiles (TPs-2-4, 9-12, 17, and 18);
- Native soils (TPs-1, 3-8, and 13-16);
- Solid (TPs-4, 7-12, 14, 15, 17, and 18) and non-solidified (TP-8) asphalt materials;
- Asphalt pieces with an oily appearance, PID readings up to 804 ppm and a strong odor (TP-14, 3 ft bgs);
- Remnants of a small fire (TP-8); and
- Debris (TPs-8, 12, 17, and 18).

Twenty-two subsurface soil samples were collected from the test pits for the parameters listed in Table 3. Analytical results are summarized in Table 10.

Samples from eight locations were submitted for VOC analysis. At least one VOC was detected in each of these samples. The sample with the highest VOC concentrations was from 3 ft bgs at TP-14 near the asphalt storage tanks, where petroleum related VOCs were detected. As described above and in the Test Pit Log in Appendix A, this interval contained asphalt pieces with an oily appearance, had a strong odor and produced PID readings up to 804 ppm. However, there were no exceedances of the Commercial and Industrial SCOs for VOCs at this or other test pit locations.

SVOCs were detected at eight of the 22 SVOC sampling locations. However, the only exceedance of Part 375 Commercial and Industrial SCOs were at the deepest interval reached (6-6.5 ft bgs) at TP-10, which is along the eastern property boundary. One PAH, benzo(a)pyrene, exceeded Commercial and Industrial SCOs. Pieces of asphalt were found throughout this test pit. At the base of the test pit, near where the sample was collected, there was an impenetrable hard surface that was most likely asphalt. Therefore, the PAH exceedances are believed to be related to the presence of the asphalt and are thus not considered to be of concern.

One pesticide and one PCB were detected in the five sampling locations submitted for these analyses. These detections were below the Part 375 Commercial and Industrial SCOs.

Among the five locations sampled for metals, exceedances of Commercial SCOs were found at each location. However, the samples with exceedances of the aluminum, calcium, iron and

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magnesium Part 375 Commercial SCOs are considered to be naturally occurring and not Site-related.

4.3.3 Passive Soil Gas

PSG surveys were conducted in three areas, including two areas surrounding and downgradient from the laboratory building and one surrounding the oil house and maintenance garage (see Figure 5). The PSG laboratory report is presented in Appendix H. The report includes contouring of the analytical results. The PSG survey results showed the presence of chlorinated VOCs, especially TCE, centered around an area just northeast of the laboratory building (at PSG-5 and PSG-12) and extending toward the north. These results were used to help refine the positioning of the monitoring wells in the laboratory area and downgradient areas.

The PSG results also showed two areas of petroleum related VOCs in the vicinity of the asphalt storage tanks and the maintenance garage. The PSG concentrations near the asphalt storage tanks are likely related to the impacts discovered at test pit TP-14 (see Section 4.3.2). In the PSG area near the maintenance garage, no surface (SS-11) or subsurface soil (B-19 through B-21 and B/MW-9) impacts were noted based on laboratory analytical sampling results and field screening (see Sections 4.3.1 and 4.3.4). For both areas of PSG petroleum VOC results, based on groundwater sampling results at nearby and downgradient monitoring well locations (B/MW-6, B/MW-9, B/MW-10, and B/MW-14), there are no petroleum related exceedances in groundwater (see Section 4.3.5 and Table 12).

4.3.4 Monitoring Well and Borehole Soil

A total of 38 subsurface soil samples were submitted from the RI and Phase II monitoring well and soil boreholes for the parameters indicated in Table 3. Analytical results are summarized in Table 9.

Among the 36 sampling locations collected for VOC analysis during the Phase II and RI, 33 had VOCs detected; however, at 16 of these locations, the only VOC detected was a low level of methylene chloride, which is a common laboratory contaminant and not considered to be a Site related contaminant. Among the other locations with detections, low levels of petroleum related VOCs were detected at 8-9 ft bgs in the soil sample from B/MW-10, which is just to the east of the asphalt storage tanks, and near the surface at B/MW-27 and B/MW-31, which are to the west of the asphalt storage tanks. The low level detection at B/MW-10 may be related to the PSG results discussed in Section 4.3.3. The detections at B/MW-27 and B-31 reflect the elevated (41 to 58 parts per million [ppm]) PID readings and odors observed during the sampling of these intervals (0.3 to 1.1 ft bgs). All of the petroleum related VOC detections in the boring subsurface soil samples were nevertheless well below Part 375 Commercial, Industrial and POGW SCOs.

Other locations with detections were predominantly chlorinated VOCs and these locations were in the vicinity of the laboratory building. The chlorinated VOCs reported at or near the water

table are contoured on Figure 9. All subsurface soil sample sampling results from the well and soil borings were well below the Commercial and Industrial SCOs. The locations with the highest detections are on the east and southeast sides of the laboratory building and correspond to locations where elevated PID readings were observed and exceedances of Part 375 POGW SCOs occurred. These exceedances include: TCE at BS-2, BS-4, B-16, B/MW-23, and B-24; 1,1,1-trichloroethane (1,1,1-TCA) at B-24; and 1,1-dichloroethane (1,1-DCA) at B-16. In the laboratory source area, TCE concentrations ranged up to 35 ppm. Concentrations diminish significantly away from the vicinity of the laboratory building source area. The area with known exceedances is approximately 55 ft in the north to south direction and 30 ft in the east to west direction. Based on PID readings and soil sampling results the estimated depth of the contaminated interval is approximately 4 to 15 ft bgs.

Low concentrations of SVOCs were detected at three of the 11 soil boring samples submitted for SVOC analysis. These concentrations were all below the Part 375 Commercial, Industrial and POGW SCOs.

No pesticides or PCBs were detected in the five soil boring samples submitted for these analyses.

Metals were detected in each of the five soil boring samples submitted for metals analysis. Exceedances of Part 375 Commercial and POGW SCOs in each boring were for calcium, iron, and magnesium. These metals are considered to be naturally occurring, not Site-related, and thus, not of concern.

4.3.5 Groundwater

A total of 34 Phase II ESA and RI groundwater samples were submitted for laboratory analysis for the parameters indicated on Table 6. Results of laboratory analyses of groundwater samples from the Phase II ESA and RI are summarized in Table 12.

Monitoring of groundwater field parameters was performed during the purging and sampling of each well. A summary of the RI measurements of stabilized field parameters (the last field parameter measurements made prior to collection of each sample or just subsequent to sample collection) is presented in Table 7.

Contouring of the total chlorinated VOC concentrations for the first and second round of RI groundwater sampling is provided on Figures 10 and 11. On these figures, previous results are shown in parentheses for locations not sampled during the respective round of sampling depicted.

VOCs were detected in 18 of the 34 groundwater samples collected during the Phase II and RI, with exceedances in 11 samples. Detections were primarily for chlorinated ethenes and ethanes in samples collected from the vicinity of the laboratory building. In addition to chlorinated ethenes and ethanes, toluene was detected at low levels in BS-2 and BS-4; carbon disulfide was detected at a low level in deep overburden well MW-28D; and acetone and

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methylene chloride, which are common laboratory contaminants, were detected at MW-13. However, the only exceedances of Class GA standards were for the chlorinated VOCs.

During the Phase II ESA, four locations were sampled in the vicinity of the laboratory building for VOCs. Three of these locations had exceedances for chlorinated ethenes and ethanes, with total chlorinated VOC concentrations ranging from 0.001 ppm to 2.2 ppm.

The first RI round of groundwater sampling was conducted in December 2010 for the on-Site water supply well and in January to February 2011 for the 18 shallow and one deep overburden monitoring wells. Chlorinated ethenes and ethanes were detected in six shallow overburden wells in the vicinity of the laboratory building, with exceedances at four of these locations (BS-2, BS-4, MW-23, and MW-25). Total chlorinated ethene and ethane concentrations ranged up to 12.4 ppm, with TCE comprising the majority of this total at 12 ppm. Figure 10 presents interpolated contours of these chlorinated VOC data in the shallow overburden wells. Similar to the soils, the highest concentrations are east and southeast of the laboratory building. Concentrations diminish rapidly beyond the vicinity of the laboratory building. Downgradient concentrations area to the north and downgradient along the eastern property line are low or non-detect.

As described above, the only VOC detected in the deep overburden well was a low level of carbon disulfide. No chlorinated VOCs were detected; therefore, the contamination existing in the shallow overburden has not migrated to the deep (40 ft bgs) overburden.

No VOCs were detected in the on-Site water supply well, which is about 180 ft deep.

The second RI round of groundwater sampling was conducted in April 2011. Ten shallow overburden wells were sampled. Chlorinated VOCs were detected in six of the wells, with exceedances at four of these locations (BS-2, BS-4, MW-8, and MW-25). Total chlorinated ethene and ethane concentrations ranged up to 0.1 ppm, with TCE comprising the majority of this total at 0.091 ppm. Figure 11 presents interpolated contours of the chlorinated VOCs in shallow overburden wells. As with the first round of sampling, concentrations were highest east and southeast of the laboratory building. Downgradient concentrations in the area to the north and to the east diminish rapidly. VOC concentrations during the second round of sampling were generally lower than those observed during the first round of sampling. It is presumed that the reduction of VOC concentrations was related to the high water table at the time of sampling.

No SVOCs were detected among the eight wells sampled for these constituents.

No pesticides or PCBs were detected among the four wells sampled for these parameters.

Metals were detected in each of the four wells sampled for metals. Exceedances of metals standards were found for arsenic, iron, manganese, and sodium. The later three metals are considered common naturally occurring metals and are thus not considered to be of concern. Arsenic, in this case, is also considered to be naturally occurring and not Site related. Since arsenic has only been reported in the production well, it was suspected that this is the result of a

naturally occurring condition at depth. The Village of Belmont presents their public water supply sampling data on the internet at <http://www.belmontny.org/html/bforms.htm>. Review of their data indicates the Village reported arsenic at 50 parts per billion (ppb) in both 2005 and 2009 and they attributed their elevated arsenic levels to "Bedrock Minerals". Given this information, we believe that the arsenic in the production well is a naturally occurring condition and no further investigation is necessary.

5.0 QA/QC Evaluation

5.1 DATA USABILITY SUMMARY REPORTS

Laboratory reports received from TestAmerica for all samples submitted for laboratory analysis during the RI were forwarded to ChemWorld or DVS for review of the usability of the laboratory analytical data. Results of the reviews were reported by ChemWorld and DVS in their Data Usability Summary Reports (DUSRs), which are provided in Appendix I.

As documented in the DUSRs, the data usability reviews were completed by ChemWorld or DVS using applicable guidance from the USEPA Region 2 standard operating procedures for data validation and the USEPA National Functional Guidelines for Data Review. Full reviews of the data deliverable summary forms and raw sample data for RI samples and limited reviews of raw QC data were performed in accordance with the above-referenced guidance. The scope of their reviews are described in detail in the DUSRs.

In summary, the laboratory data (analyte values and reporting limits) were generally found to be usable as reported by the lab or usable with qualification as an estimated value due to typical processing or matrix effects. None of the RI data were rejected as unusable.

Examples of issues that required the data to be qualified during data review included detections of compounds in method blanks, outlying recoveries on matrix spikes, continuing calibration values outside the acceptable limit, etc.

The reviewed results described in the DUSR have been incorporated into the various data summary tables presented in this report (data presented in Tables 9 through 12).

6.0 Qualitative Exposure Assessment

6.1 GENERAL CONSIDERATIONS

As specified in NYSDEC's Technical Guidance for Site Investigation and Remediation (DER-10, May 2010), a qualitative exposure assessment for both human health and/or fish and wildlife resources qualitatively determines the route, intensity, frequency and duration of actual or potential exposures to contaminants.

The Site is a former asphalt plant that is currently non-operational. A gravel-surfaced aggregate stockpile area is located south of the asphalt manufacturing plant structures. Paved parking and staging areas are provided adjacent to the asphalt plant and the laboratory and maintenance garage buildings. The reasonably foreseeable future uses of the Site are commercial or industrial.

The water supply well on the Site is approximately 180 ft deep. It is considerably deeper than the shallow overburden wells in the laboratory source area that are contaminated and are ± 13 ft deep. The water supply well has been sampled and has been demonstrated to be free of Site related contaminants (see Section 4.3.5). The well is currently not in use as the pump has been removed. In the past, the well was used for on-Site industrial operations and sanitary purposes, but not for a drinking water supply. It is anticipated that this well will either be decommissioned or restricted to non-drinking purposes.

Land use in the surrounding area is dominated by agricultural uses. Agricultural fields occupy the adjacent property to the east. Agricultural farm houses and barns and single family non-farm residences are located along Route 19 to the north and southeast of the property and along Friendship Hill Road (Tuckers Corner Road) to the west of the property. The property located immediately opposite the Site on the west side of Route 19 is also owned by Blades, and is the site of a vehicle and equipment maintenance shop and small office building which are both currently not in use. Land in the surrounding area is likely to continue to be used for the purposes it is currently used for, or, in the case of the other Blades property, to be used for other commercial or industrial purposes.

Immediately downgradient properties include the property to the north and the property to the east of the Site. Based on the well survey (see Sections 3.1 and 4.1), the property to the north has two wells. The closest is one is located at the house, which is approximately 275 ft north of the site. This well is approximately 24 ft deep, and is used for household purposes. The second is at the barn, is approximately 20 ft deep, and is used for cattle. Based on the presence of monitoring wells with low level or no impacts (MW-5, MW-7, MW-8, and MW-22) downgradient from the laboratory source area and upgradient from the water supply wells on the adjacent property to the north, and based on the distance between the wells, there is no reason to suspect these areas have been impacted by Site related contamination. The property to the east does not have a water supply well. It is anticipated that future groundwater use on

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the property to the north would be the same as the current use and that there will continue to be no groundwater use on the property to the east.

The Site characterization elements of the qualitative exposure assessment for the Former Allegany Bitumens Belmont Asphalt Plant Site are documented in the discussion of results that is presented in Section 4 of this report. In summary, the RI findings include:

- Subsurface soil in a source area located to the east and southeast of the laboratory building contains exceedances of POGW SCOs including: TCE at BS-2, BS-4, B-16, B/MW-23, and B-24; 1,1,1-TCA at B-24; and 1,1-DCA at B-16. TCE concentrations range up to 35 ppm.
- A groundwater contaminant plume originating at and extending downgradient from the laboratory building source area contains exceedances of class GA groundwater standards for TCE and other chlorinated VOCs. This plume includes a limited off-Site area immediately downgradient from the laboratory source area (i.e. MW-25).
- Subsurface soils near the above ground asphalt storage tanks in test pit TP-14, where petroleum odors were detected and petroleum VOCs were found at concentrations below the Part 375 Commercial and Industrial SCOs. In addition, the PSG survey identified petroleum VOCs in this area.
- Near surface soil in the vicinity of B/MW-27 and B-31 where elevated PID readings, odors, and detections of petroleum related VOCs below Part 375 SCOs were detected. This area is located to the west of TP-14 and the above ground storage tanks.
- Asphalt and other debris were observed during test pitting in the berms on the northern and eastern property boundaries, however, only one exceedance of an SCO, believed to be related to the presence of asphalt, was noted.

6.2 HUMAN HEALTH EXPOSURE ASSESSMENT

6.2.1 Introduction

A human health exposure assessment identifies areas of concern and chemicals of concern, identifies and evaluates actual or potential exposure pathways, characterizes the potentially exposed receptors (residents, workers, recreational users, etc.), and identifies how any unacceptable exposure pathways might be eliminated or mitigated.

6.2.2 Human Health Exposure Pathways

Potential exposures to contamination present in on-Site soil and groundwater either during construction activities or from vapor intrusion in commercial buildings after redevelopment are the primary on-Site exposure considerations at the Site. The potential for exposures to contaminants in soil and/or groundwater on the adjacent properties to the north and east during

construction activities is the primary Site-related off-Site exposure concern. Table 13 summarizes environmental media and exposure routes with a human exposure assessment summary.

Exposures to construction workers may occur during remediation, building demolition, construction, and other activities that involve excavation at the Site or in adjacent off-Site areas of the properties to the north and east through direct contact with or inhalation of vapors volatilizing from contaminated soil or groundwater. Exposure to remedial construction or engineering workers could occur during installation and operation of in-situ or ex-situ remediation systems. Exposure to residents or occupational workers at adjacent sites could potentially occur during remedial or construction excavation work at the Site through dispersion of particulates or volatilization and dispersion of contaminants. Exposures to the occupational workers or visitors at future commercial buildings on Site could occur from potential vapor intrusion into buildings.

Possible exposure routes through which on-Site and off-Site receptors may come into contact with the contaminants of concern detected on the Site include:

- Inhalation of volatile substances in vapors released from subsurface soils and groundwater (occupational worker, visitor, resident, and construction worker);
- Ingestion, inhalation and dermal contact with substances detected in subsurface soil (construction worker); and
- Ingestion, inhalation and dermal contact with substances detected in groundwater (construction worker).

Because of the specific conditions encountered at and near the Site, the following pathways have been reviewed, but do not represent important pathways of exposure:

- Nearby residences utilize private water supply wells. These wells are either not downgradient of the laboratory source area or they are beyond the downgradient edge of the plume, and therefore there is no exposure pathway through ingestion or dermal contact of chemicals in groundwater for residents, employees, occupants or visitors.
- Surface soil contamination has not been documented as a concern at the Site. Inadvertent ingestion or dermal exposure through direct contact with chemicals at the undisturbed surface therefore does not appear to be a concern at the Site.
- Inhalation of suspended particles in air is not considered a significant risk unless subsurface soils are excavated and exposed to dispersion mechanisms. Mandatory engineering control measures would be required to minimize soil tracking, soil erosion and dispersion of dust during excavation or remediation work.

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- Results of the RI PSG and groundwater sampling indicate exposure to local residents through soil vapor intrusion into buildings is very unlikely.
- Transient access by trespassers and local populations during excavation or remediation work could occur; however, fencing would typically be in place around the Site or excavation during remedial activities which would minimize this risk.
- Exposure of occupational workers and neighbors to contaminants in extracted groundwater or soil vapor due to the implementation of remediation systems is unlikely as these systems will be closely monitored, readily shut down and engineered to prevent the occurrence of leaks or spills. Gaseous and liquid effluent streams will be treated as per applicable emissions regulations prior to discharge to the atmosphere or waterways.

Source removal and/or plume treatment through implementation of remedial measures would address the on- and off-Site exposure risks and the potential for further migration of contaminated groundwater plumes associated with the presence of subsurface soil and groundwater contamination by VOCs. The non-VOC subsurface impacts are generally insoluble contaminants and avoiding disturbance of these areas would limit potential exposure risks for these compounds.

The potential presence of a post-remediation vapor inhalation exposure pathway for future on-Site occupational workers and commercial/industrial visitors would need to be assessed and, if necessary addressed with vapor intrusion mitigation measures.

Exposure pathways involving inhalation of contaminants suspended in air in soil particles or volatilized from subsurface soils and groundwater would be expected to be temporary and limited to periods of excavation/remediation work.

Direct exposure by way of ingestion, inhalation or dermal contact with contaminated soils or groundwater will also be transient in nature and will be restricted to periods of excavation and remediation work. Remediation/mitigation of on-Site contamination will allow future commercial or industrial use of the property in accordance with appropriate institutional controls and a site management plan.

6.3 FISH AND WILDLIFE EXPOSURE

6.3.1 Ecological Resources

A qualitative exposure assessment addressing potential impacts to fish and wildlife resources has been performed in accordance with DER-10.

Stantec performed a reconnaissance of the Site and the Site vicinity on April 20, 2011. Tuckers Creek, a Class C stream, flows adjacent to the east of the Site. As depicted in Figure 3, wetland habitat is located on the adjacent property downgradient to the north, and a state wetland is located east of Tuckers Creek approximately 0.3 mile from the Site. The aerial

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photography in Figure 3 also depicts the land cover within 1/2 mile of the Site, which predominantly consists of agricultural land and several wooded riparian corridors along tributaries to Tuckers Creek.

The Site consists of asphalt driveways and parking lots; a former asphalt plant and associated structures, aggregate piles, and gravel covered areas. Narrow strips of trees and shrubs occur along the Site perimeter. No wetlands are present on the Site. The Site is relatively level with the exception of steep downgradient slopes just beyond the northern and eastern property boundaries. The slope along most of the northern and eastern property line is enhanced by a berm that rises approximately 10 feet above the elevation of the ground surface at the laboratory contaminant source area. At the time of the site reconnaissance it was noted that the mature trees at the top of this berm were dead. The cause of death was not apparent, but a link to soil contamination is not indicated, based on:

- elevation of the trees ten to fifteen feet above the contaminant source; and
- presence of healthy shrubs growing on the berm at lower elevations (closer to the contaminant source).

No other indications of stressed vegetation were observed.

Plant species identified on the Site and in the adjacent wetland included:

- Queen Anne's Lace (*Daucus carota*)
- Staghorn Sumac (*Rhus typhina*)
- Teasel (*Dipsacus fullonum*)
- Ash (*Fraxinus sp.*)
- Cottonwood (*Populus deltoides*)
- Japanese knotweed (*Fallopia japonica*)
- Common Mullein (*Verbascum thapsus*)
- Grape (*Vitis sp.*)
- Canada goldenrod (*Solidago canadensis*)
- Red osier dogwood (*Cornus sericea*)
- Common Burdock (*Arctium minus*)
- Primrose (*Primula sp.*)

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- Black raspberry (*Rubus occidentalis*)
- Coltsfoot (*Tussilago farfara*)
- Multiflora rose (*Rosa multiflora*)
- Pussy willow (*Salix discolor*)

Fauna observed on or in the vicinity of the Site during the reconnaissance included:

- Red-winged Blackbird (*Agelaius phoeniceus*)
- American Robin (*Turdus migratorius*);
- European Starling (*Sturnus vulgaris*);
- Downy Woodpecker (*Picoides pubescens*);
- American Crow (*Corvus brachyrhynchos*);
- White-throated Sparrow (*Zonotrichia albicollis*);
- Eastern Phoebe (*Sayornis phoebe*);
- Tree Swallow (*Tachycineta bicolor*);
- Yellow-shafted Flicker (*Colaptes auratus*);
- Common Grackle (*Quiscalus quiscula*); and
- Red-bellied Woodpecker (*Melanerpes carolinus*).

Fauna observed in the adjacent wetland included:

- Muskrat (*Ondatra zibethicus*);
- Red fox (*Vulpes vulpes*); and
- Spring Peeper (chorus) (*Pseudacris crucifer*).

None of these observed species are federally or state listed as threatened, endangered, or special concern species.

A request was sent to the New York Natural Heritage Program and the U.S. Fish and Wildlife Service website was reviewed to determine any known occurrence of rare, endangered and/or threatened species in the vicinity of the Site.

The response from the NYSDEC Natural Heritage Program (letter to B. Wagner dated May 6, 2011) indicated that no rare or state-listed animals or plants, significant natural communities or other significant habitats are known to be present on or in the immediate vicinity of the Site (see Appendix J).

The U.S. Fish and Wildlife Service (USFWS) provides an online searchable database for occurrences of federally listed species by county. The database identifies Bald Eagle (*Haliaeetus leucocephalus*) as a formerly federally listed threatened or endangered species occurring in Allegany County (cover sheet and online database search results, 4/19/2011) (see Appendix J) and notes that the federal listing has been rescinded. Bald Eagle remains listed by New York as a threatened species but, as noted above, the NYSDEC Natural Heritage Program has no records of any state listed species, including Bald Eagle, on or in the vicinity of the Site. Neither individuals nor nesting sites of this species were observed during the site reconnaissance. Per USFWS policy, if a subject site contains no habitat suitable for the subject species, no further investigation is required. Although a stream runs adjacent to the Site, the relatively sparsely wooded character of the Site, the proximity of developed land, and the availability of more suitable habitat outside of the Site vicinity suggest that use of the Site by Bald Eagle is very unlikely. Therefore, no further investigation is needed with respect to threatened or endangered species.

6.3.2 Exposure Pathways

Given the lack of ecological resources on the Site, the results of the RI sampling program, and the groundwater flow direction estimated from water level measurements, the potential exposure pathway identified for fish and wildlife is migration of the contaminant plume off-Site to the north, toward the wetlands on the adjacent property. Measured groundwater levels indicate that a connection is likely between groundwater and surface water in the wetland area. However, the RI sampling program in this area identified no soil contaminant concentrations in exceedance of Part 375 Commercial, Industrial, and POGW SCOs and non-detect or low level groundwater contaminant concentrations. Therefore, no impacts are anticipated to ecological resources on the Site or adjacent properties due to the contaminant source and exposure pathways for fish and wildlife directly related to those occurrences. Therefore, these resources are not subjected to further evaluation in this assessment. A DER-10 Fish and Wildlife Resources Impact Analysis Decision Key summarizing this conclusion is presented in Appendix J. However, the following observations are provided concerning means of addressing generic potential ecological exposure risks associated with the Site.

Inhalation and contact by ecological receptors with suspended particles in air is not considered a significant risk unless subsurface soils are excavated and exposed to dispersion mechanisms. Measures approved by NYSDEC would be implemented to control soil tracking, soil erosion and dispersion of dust during excavation and remediation work. Similarly, potential mobilization of contaminants downgradient towards the adjacent wetland or stream during future excavation or remedial activities is a wildlife exposure risk that should be mitigated with best management practices to contain and capture stormwater, soil and sediment within the remedial area and/or by using temporary storage structures.

7.0 Summary and Conclusions

The RI of the former Allegany Bitumens Belmont Asphalt Plant Site has resulted in the following findings: (1) chlorinated VOC impacts are present in subsurface soil and shallow groundwater in the vicinity of the laboratory building; (2) petroleum impacts are present in surface and subsurface soil in two localized areas in the vicinity of the asphalt tanks; and (3) debris is present in the perimeter berms however, no significant “contamination” issues were identified. With the exception of the proposed removal and/or demolition of the various equipment and structures that will be needed to facilitate addressing items 1 and 2 above, no other conditions were identified during the RI that require further investigation or remedial measures.

Chlorinated VOCs in the Former Laboratory Building Area

Passive soil gas sampling results showed an area of chlorinated VOC detections extending northward from the laboratory building area. The chlorinated VOC detections correspond with soil and groundwater detections of these compounds in and downgradient from the laboratory building area.

All subsurface soil sample sampling results from the well and soil borings were well below the Commercial and Industrial SCOs. Exceedances of Part 375 POGW SCOs (see Section 4.3 for a discussion of the use of POGW SCOs) were reported for chlorinated VOCs in subsurface soil samples from one monitoring well and four soil borings just to the east and southeast of the laboratory building, including BS-2, BS-4, B-16, B/MW-23, and B-24. Trichloroethene (TCE) concentrations in the laboratory source area ranged up to 35 ppm. Concentrations decrease significantly away from the source area. The area with known exceedances of SCOs is approximately 55 ft in the north - south direction and 30 ft in the east - west direction. Based on PID readings and soil sampling results, the estimated depth of the contaminated soil interval in the source area is approximately 4 to 15 ft bgs.

Shallow overburden groundwater flow was found to flow away from the northwest portion of the Site (Laboratory Building area) toward the north, northeast, east and southeast. Variations in water levels of up to 3.75 ft were observed seasonally.

Two rounds of groundwater sampling were conducted with the first round occurring in January - February 2011. Exceedances of groundwater standards were reported for chlorinated VOCs at four locations at, and downgradient from, the laboratory source area (BS-2, BS-4, MW-23, and MW-25) with total chlorinated ethene and ethane concentrations, predominantly TCE, ranging up to 12.4 ppm. The highest concentrations were at BS-2 and BS-4.

The second round of groundwater sampling was conducted in April 2011. Exceedances of groundwater standards were reported for chlorinated VOCs at four locations at, and downgradient from, the laboratory source area (BS-2, BS-4, MW-8, and MW-25) with total chlorinated ethene and ethane concentrations, predominantly TCE, ranging up to 0.1 ppm. The

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highest concentrations were again at BS-2 and BS-4. VOC concentrations reported during the second round of sampling were generally lower than those observed during the first round of sampling. The reduction of VOC concentrations is believed to be related to the higher water table at the time of the second round of sampling.

A deep overburden monitoring well installed in the Laboratory Building source area, and the on-Site water supply well, were both found to be free of Site related groundwater contamination. Therefore, there was no evidence that the chlorinated VOCs contaminants found in the shallow overburden in the vicinity of the laboratory building have migrated downward.

Petroleum Impacts in the Asphalt Tank Area

Passive soil gas sampling results showed an area with low level concentrations of petroleum VOCs near the asphalt tanks and the maintenance garage

Low level petroleum VOC detections below the Commercial and Industrial Part 375 SCOs at TP-14, located near the asphalt tanks, correspond to observations of asphalt pieces with an oily appearance from approximately 3 ft bgs, photoionization detector (PID) readings up to 804 parts per million (ppm) and a strong petroleum odor, as well as detections of petroleum VOCs in the PSG survey in this area. No impacts were reported in soil and groundwater samples from the maintenance garage area, including at B/MW-9, B-19, and B-20.

To the west of TP-14 and the asphalt storage tanks, low level detections of petroleum VOCs were found in soils at B/MW-27 and B-31. These detections were below SCOs and correspond to near surface (0.3 to 1.1 ft bgs) elevated PID readings (41 to 58 ppm) and petroleum odors observed during logging of soils. Overall, there were no petroleum related Part 375 SCO exceedances among the subsurface soil samples.

Further, no petroleum related compounds were reported in any of the groundwater wells at the Site, including downgradient of the above locations, hence there is no indication that the petroleum related soil impacts have affected groundwater.

Perimeter Berms

Conditions encountered during test pit excavations included native soils, aggregate stockpiles, solid and non-solidified asphalt materials, remnants of a small fire, and debris. The only exceedance of Part 375 Commercial and Industrial SCOs, in the 12 berm samples analyzed, was for one SVOC at TP-10. Benzo(a)pyrene, exceeded Commercial and Industrial SCOs. Pieces of asphalt were found throughout this test pit. At the base of the test pit, near where the sample was collected, there was an impenetrable hard surface that was most likely asphalt. Therefore, this one PAH exceedance is believed to be related to the presence of the asphalt and is thus not considered to be of concern.

Conclusions and Recommendations

Chlorinated solvents, primarily TCE, have impacted a limited volume of soil to the east and southeast of the former laboratory building. TCE was used at the former laboratory building for testing asphalt products as required by NYSDOT. This impacted soil has in turn resulted in a slightly larger, but limited, shallow chlorinated solvent impacted groundwater plume that has shown seasonal variability. This plume has partially extended off-Site to the northeast a limited distance and at low concentrations.

Use of petroleum products in former asphalt production activities has resulted in shallow soil impacts in two areas; near-surface soil around the above ground asphalt storage tanks and near surface soil west of the asphalt storage tanks. No groundwater impacts have been identified in association with the petroleum impacted soils.

A variety of asphalt and debris was encountered in the berms located along the northern and eastern property boundaries. However, only one SCO exceedance was reported in the 12 samples analyzed from the berms and this finding likely resulted from the presence of asphalt.

Interim remedial measures are needed to address Site-related chlorinated VOC impacts in soil in the former laboratory building source area, and petroleum impacts in soil around the above ground asphalt storage tanks and west of the asphalt tanks. In addition, remedial measures are needed to address the shallow chlorinated VOC groundwater impacts in the former laboratory building area. These impacts should be addressed in the near future (Fall 2011) to minimize the risk of further impact to groundwater both on-site and off-site.

In order to implement these interim remedial measures, it is recommended that the buildings and equipment be removed to allow for easy access to impacted areas. This will also facilitate evaluation of any additional impacts that may be present beneath these structures.

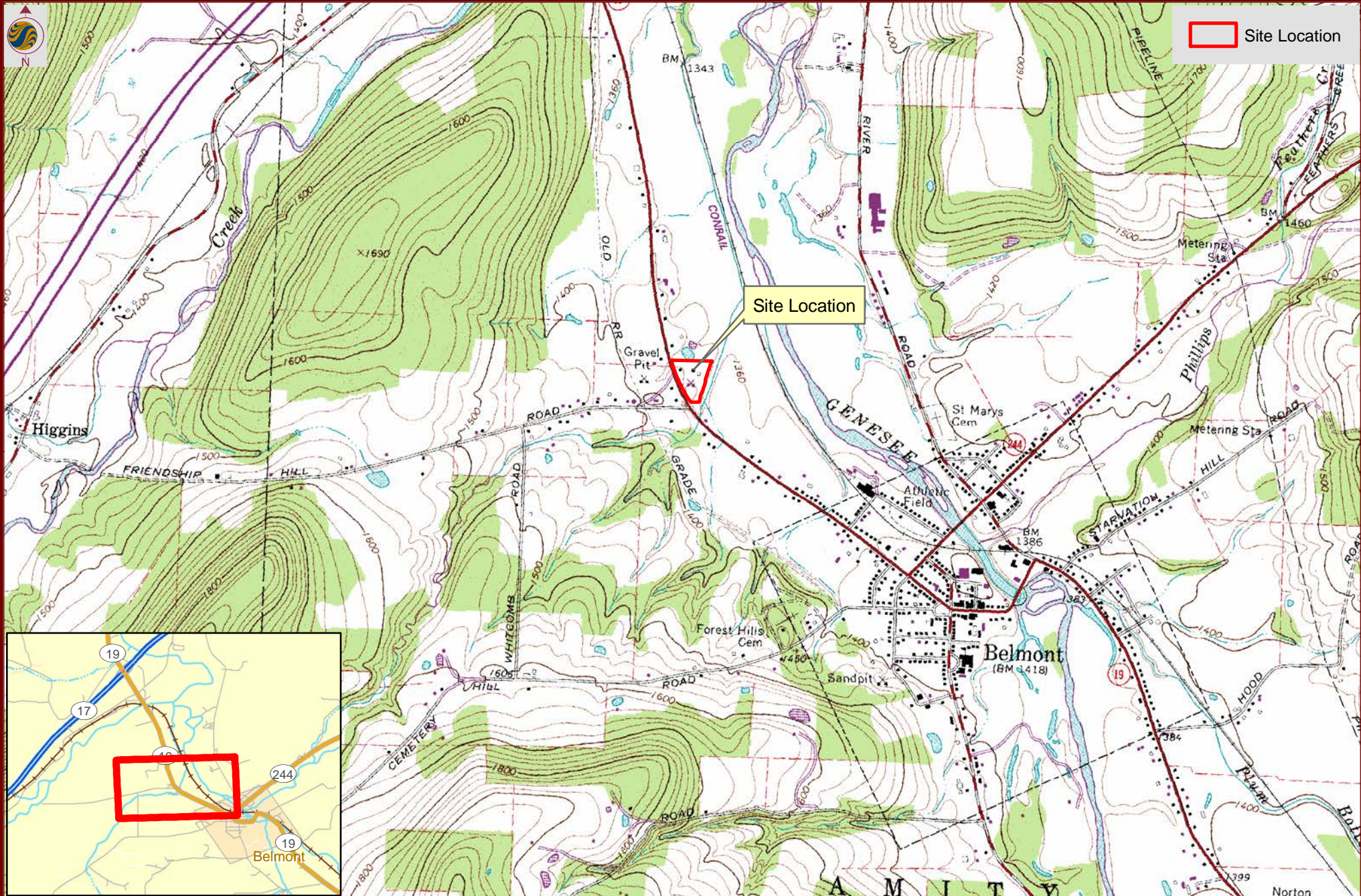
Given that the only exceedance of SCOs within the bermed areas involved a PAH in a sample collected adjacent to asphalt, which was the likely source, no additional remedial measures are warranted for the berms. Instead, it is recommended that institutional controls be implemented to limit potential future disturbances of these areas.

Stantec is submitting an Interim Remedial Measures Work Plan, under separate cover, to accompany this RI Report such that the necessary remedial measures can be implemented in the near future (Fall 2011).

8.0 References

1. Remedial Investigation Work Plan, Brownfield Cleanup Program, Site #C902019, Former Allegany Bitumens Belmont Asphalt Plant, 5392 State Route 19, Town of Amity, Allegany County, New York. Stantec Consulting Services Inc., October 11, 2010 revised.
2. Monthly Progress Reports #1 through #9, Brownfield Cleanup Program Remedial Investigation, Site #C902019 Former Allegany Bitumens Belmont Asphalt Plant, 5392 State Route 19, Town of Amity, Allegany County, New York. Stantec, issued monthly from November 2010 through July 2011.
3. Phase I/Phase II Environmental Site Assessment, Former Allegany Bitumens Belmont Asphalt Plant, 5392 State Route 19, Town of Amity, Allegany County, New York. Stantec, July 2010.
4. Technical Guidance for Site Investigation and Remediation (DER-10), NYSDEC, May 2010.

FIGURES



Geographic Information Systems

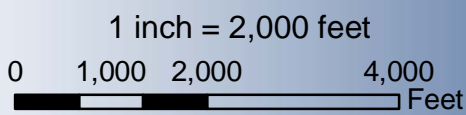
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 61 Commercial Street
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 Phone 585.475.1440 Fax 585.272.1814
 www.stantec.com
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Map Source : NYSGIS Clearinghouse Web Site

Cartographic Design By: Andrew Less

June 29, 2011

U:\190500593\drawing\RI Report Figures\Figure 1_Site Location Map.mxd



Allegany Bitumens Belmont Asphalt Plant Site

FIGURE 1 : Site Location Map Showing USGS Topographic Information



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Consultants

Legend

Notes

Revision By Appd. YY.MM.DD

FOR REVIEW M/JG JWP 11.02.08

Issued By Appd. YY.MM.DD

File Name: Figure 2 Topographic Survey.dwg M/JG JWP 11.02.07

Dwn. Chkd. Dsgn. YY.MM.DD

Permit Seal



Project/Client

**ALLEGANY BITUMENS
BELMONT ASPHALT PLANT**

BLADES HOLDING COMPANY, INC.

Title

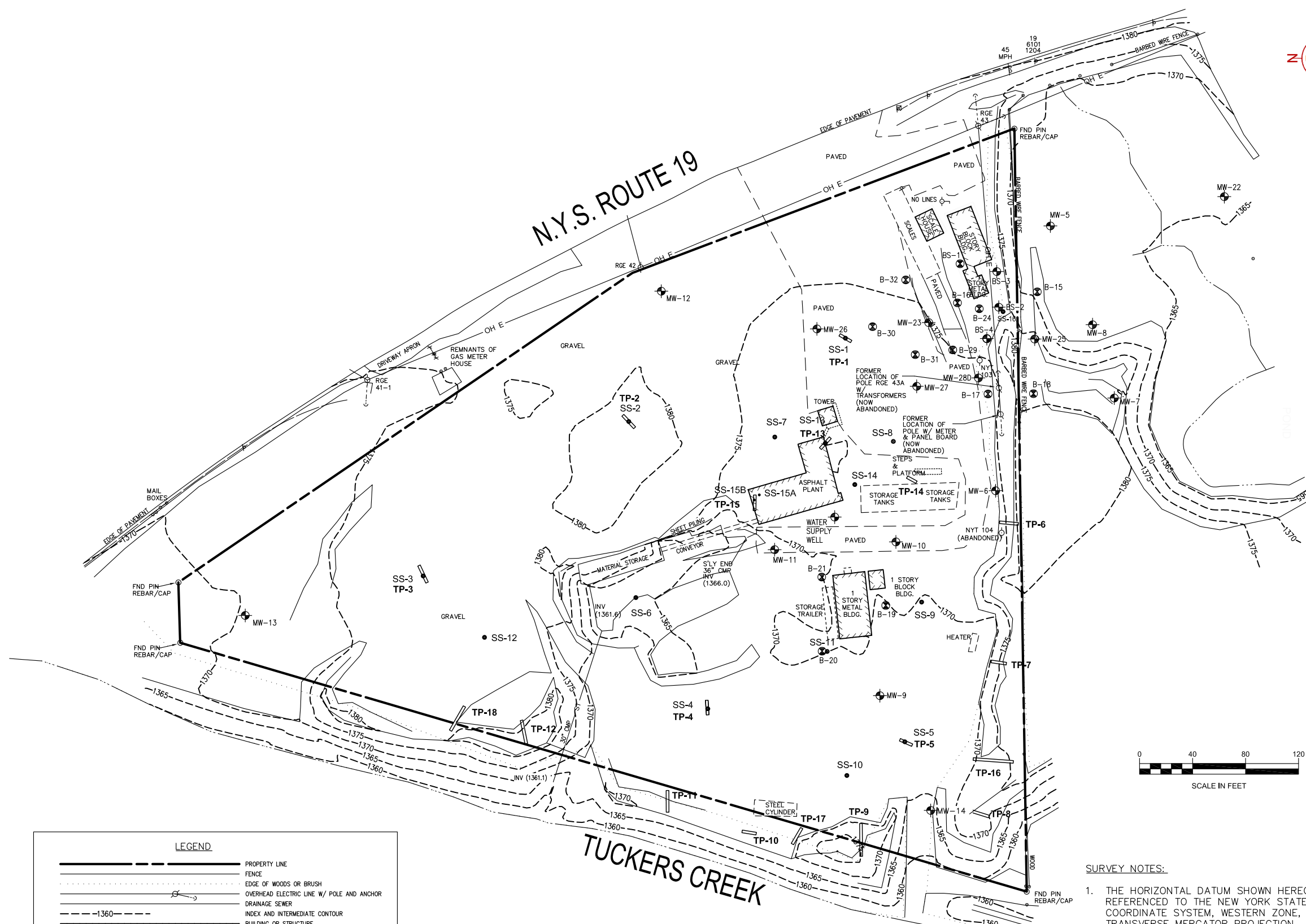
TOPOGRAPHIC SURVEY

Project No. 190500593 Scale 1"=40'

Drawing No. Sheet Revision

Figure 2 1 of 1 0

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SURVEY NOTES:

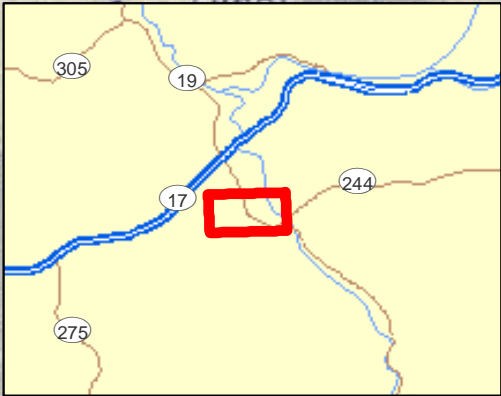
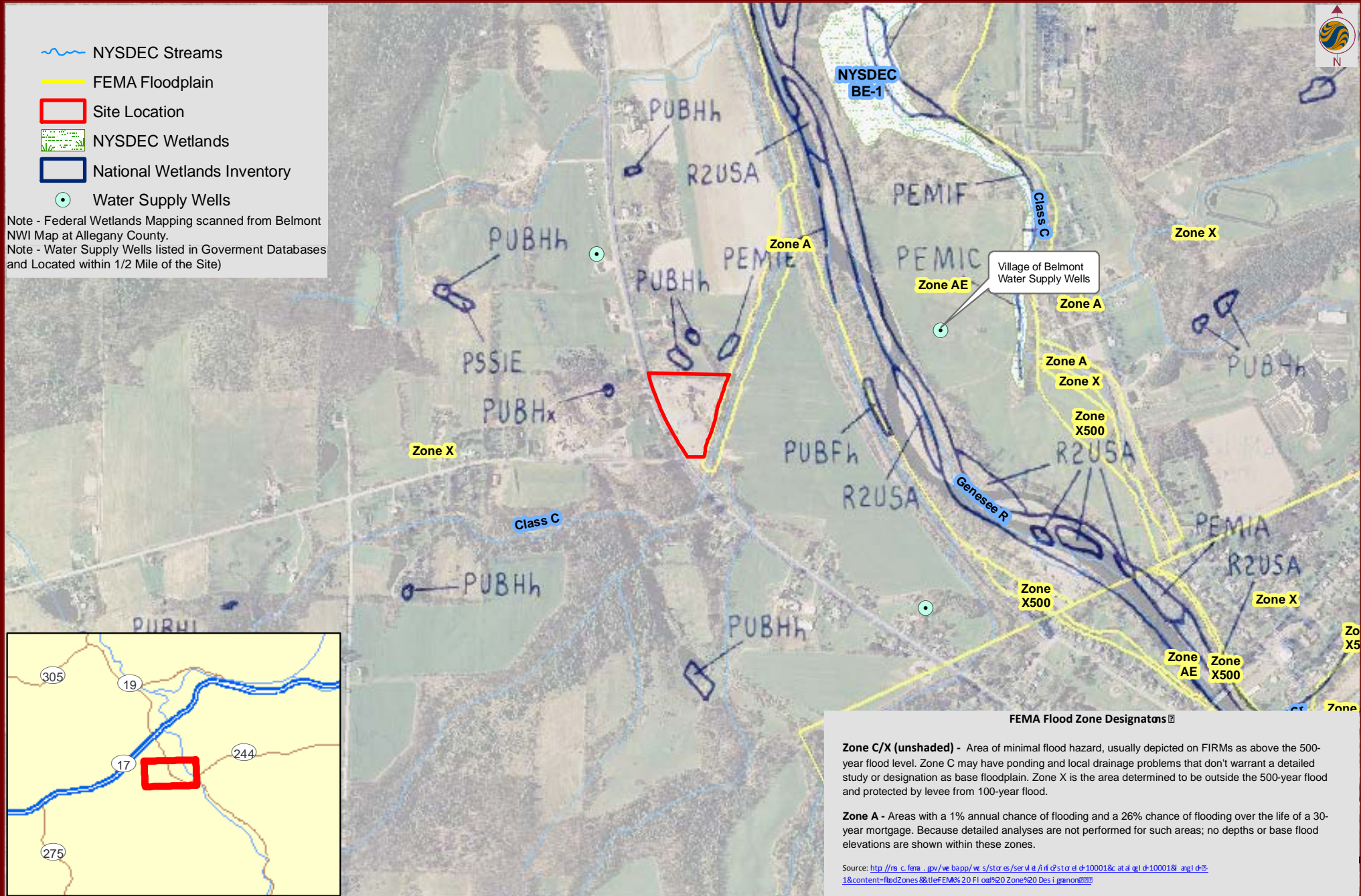
1. THE HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM, WESTERN ZONE, TRANSVERSE MERCATOR PROJECTION, NAD83(CORS96) BY GPS OBSERVATIONS.
2. THE VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1988 BY GPS OBSERVATIONS.
3. PROPERTY LINES SHOWN HEREON ARE TAKEN FROM A SURVEY MAP PREPARED BY B&R SURVEYING, P.L.L.C, ENTITLED "PLAN OF LANDS OWNED BY ALLEGANY BITUMENS, INC." NOVEMBER 16, 2009 AND HAVING JOB NUMBER 09-067.

LEGEND	
	PROPERTY LINE
	FENCE
	EDGE OF WOODS OR BRUSH
	OVERHEAD ELECTRIC LINE W/ POLE AND ANCHOR
	DRAINAGE SEWER
	INDEX AND INTERMEDIATE CONTOUR
	BUILDING OR STRUCTURE
	EDGE OF POND OR DITCH
	B-19 BOREHOLE
	MW-27 MONITORING WELL
	SS-16 SURFACE SOIL SAMPLING LOCATION
	TP-14 TEST PIT

U:\190500593\Drawings\RI Report Figures\Figure 2 Topographic Survey.dwg 2017-06-30 10:34 AM By:letta-amy

-  NYSDEC Streams
-  FEMA Floodplain
-  Site Location
-  NYSDEC Wetlands
-  National Wetlands Inventory
-  Water Supply Wells

Note - Federal Wetlands Mapping scanned from Belmont NWI Map at Allegany County.
 Note - Water Supply Wells listed in Government Databases and Located within 1/2 Mile of the Site)



FEMA Flood Zone Designations

Zone C/X (unshaded) - Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.

Zone A - Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.

Source: <http://rs.c.fema.gov/webapp/w/s/stores/serve/firmstore/d-10001&atq/d-10001&ngl/d-1&content=fldZones&title=FEMA%20Flood%20Zone%20Designations>

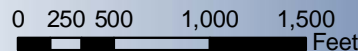
Geographic Information Systems

Cartographic Design By: Travis Money

Tuesday, July 5, 2011 11:08:30 AM
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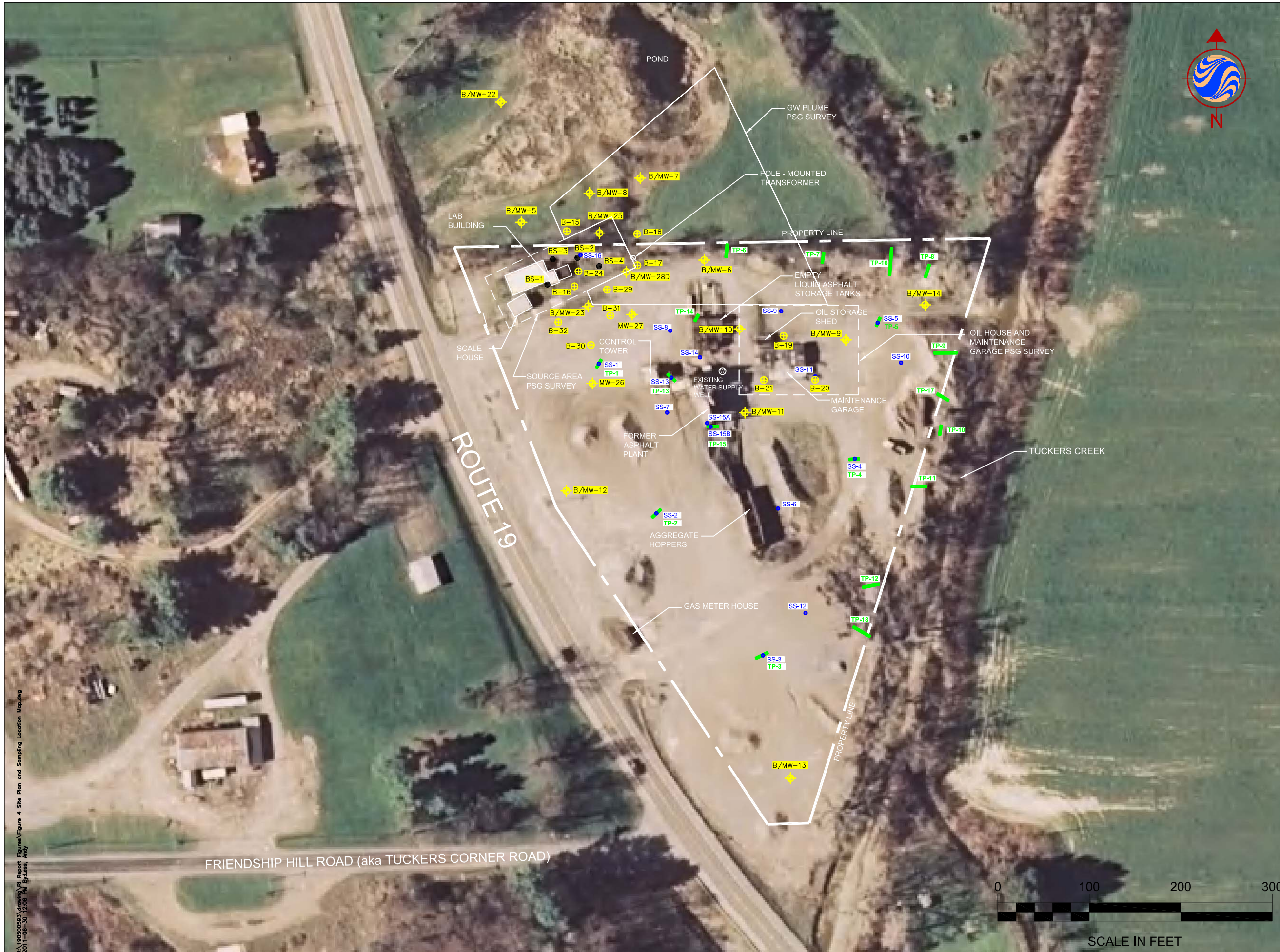
1 inch = 1,000 feet



Former Allegany Bitumens Belmont Asphalt Plant Site

FIGURE 3: Location of Watercourses, Waterwells and Wetlands in Area





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Legend

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- ⊕ EXISTING WATER SUPPLY WELL
- ⊕ TEST BORING
- ⊕ RI TEST BORING/MONITORING WELL
- SURFACE SOIL SAMPLE
- ▭ TEST PIT

Notes

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2. AERIAL MAPPING OBTAINED FROM THE NEW YORK STATE CLEARINGHOUSE GIS WEB SITE. PHOTO DATED 2007.
3. PSG = PASSIVE SOIL GAS

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File Name: Figure 4 Site Plan and Sampling Location Map

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 BELMONT ASPHALT PLANT**

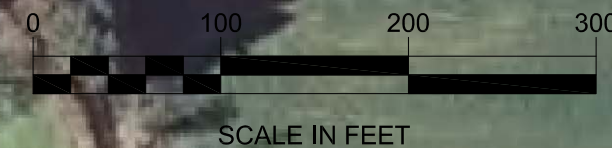
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Title

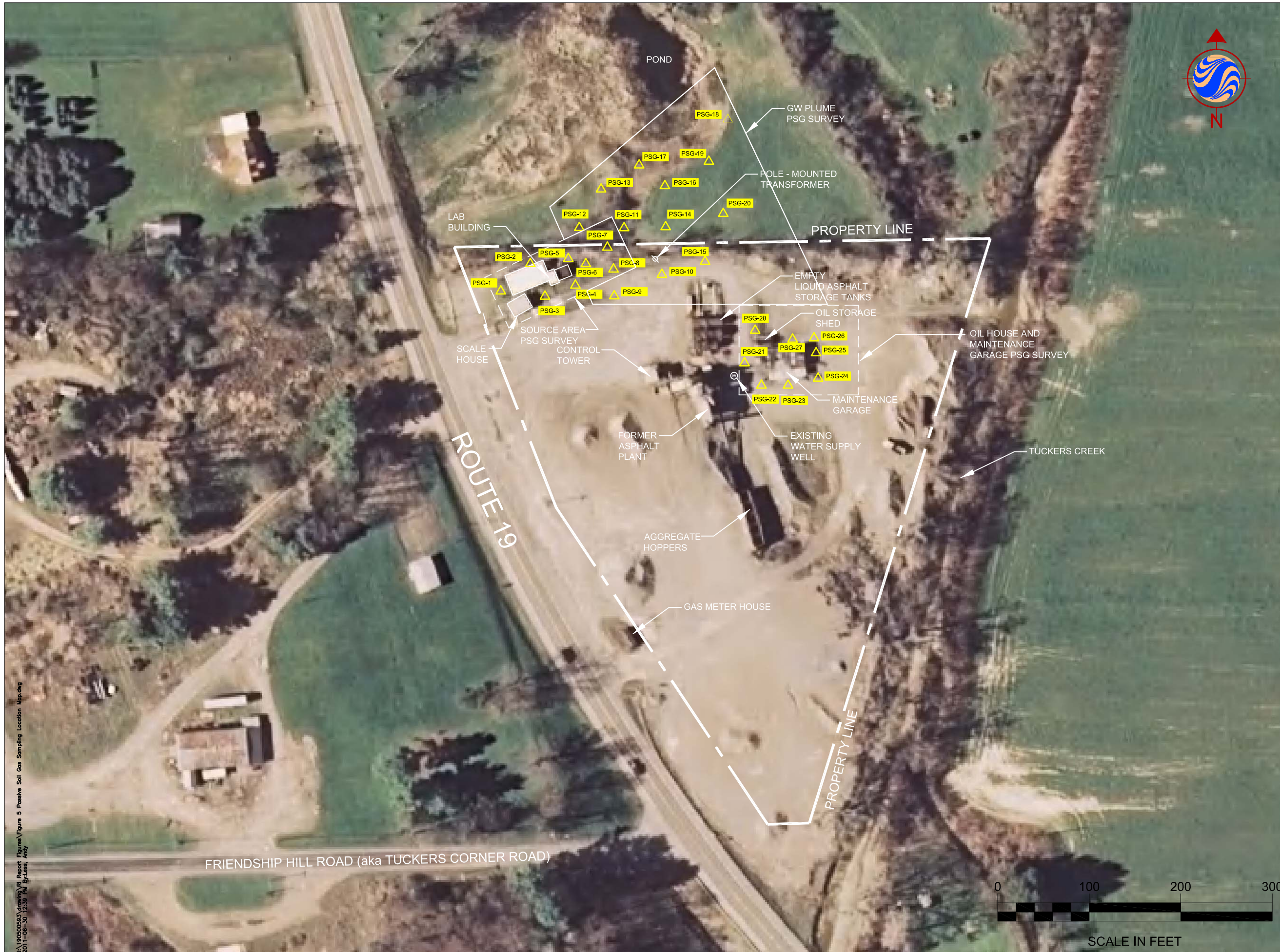
**SITE PLAN AND
 SAMPLE LOCATION MAP**

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FIG. 4 of



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Legend

- PSG PASSIVE SOIL GAS SAMPLING LOCATION
- EXISTING WATER SUPPLY WELL

Notes

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File Name: Figure 5 Passive Soil Gas Sampling Location Map.dwg

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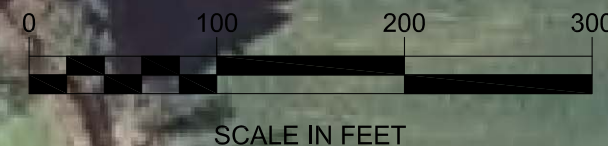
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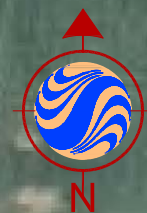
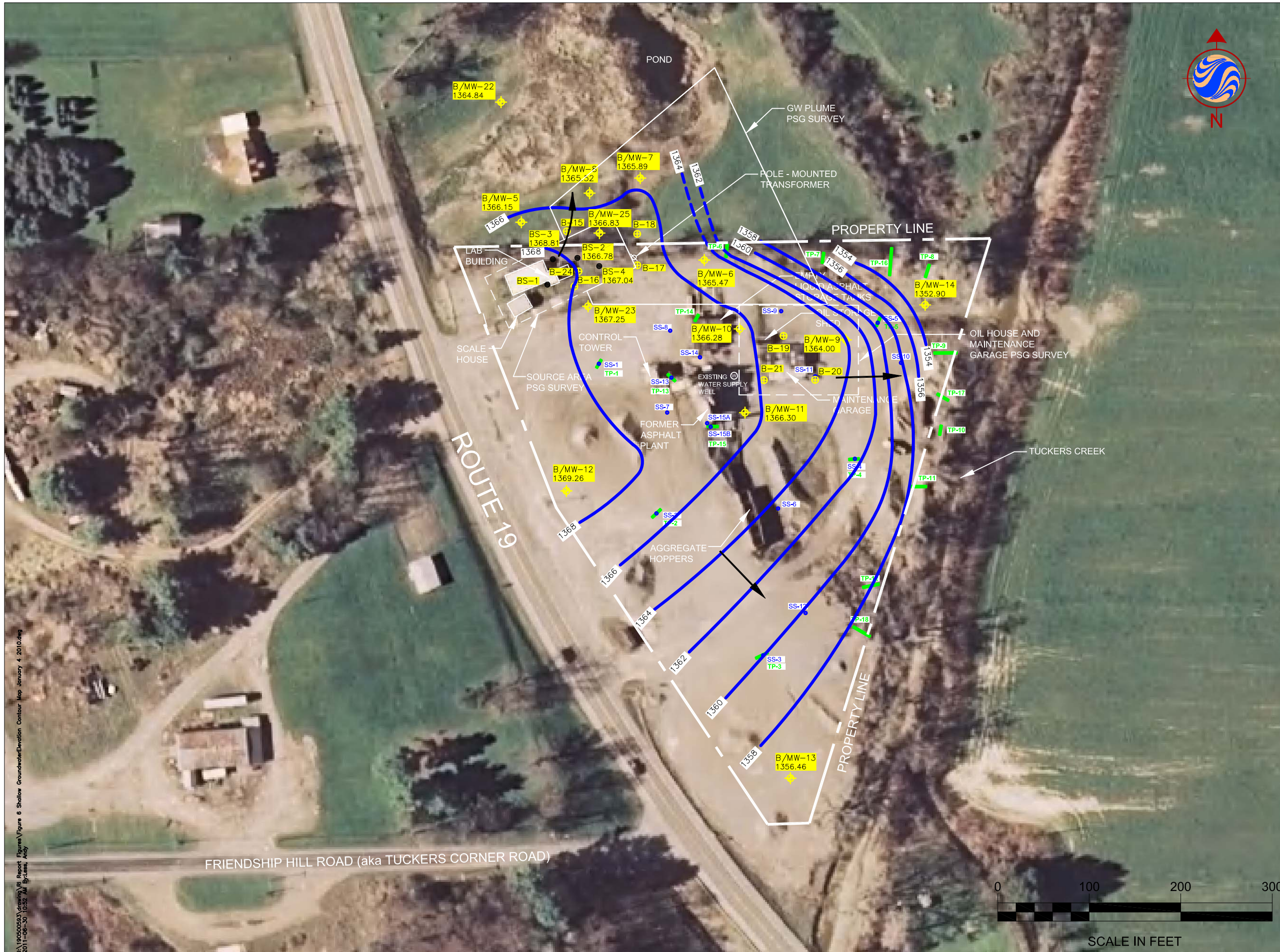
PASSIVE SOIL GAS
 SAMPLE LOCATION MAP

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FIG. 5

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- Legend
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 - ⊕ EXISTING WATER SUPPLY WELL
 - ⊕ TEST BORING
 - ⊕ RI TEST BORING / SHALLOW MONITORING WELL WITH GROUNDWATER ELEVATION (FT AMSL)
 - SURFACE SOIL SAMPLE
 - TEST PIT
 - GROUNDWATER ELEVATION CONTOUR (FT AMSL) (DASHED WHERE INFERRED)
 - APPARENT DIRECTION OF GROUNDWATER FLOW

- Notes
1. MAP REFERENCE : INFORMATION ON THIS MAP IS REFERENCED FROM MAP ENTITLED "PLAN OF LANDS OWNED BY: ALLEGANY BITUMENS, INC. SITUATE IN THE TOWN OF AMITY, COUNTY OF ALLEGANY, STATE OF NEW YORK, AND BEING A PORTION OF GREAT LOT # 18, TOWNSHIP #3, RANGE #2 OF THE ROBERT MORRIS RESERVE.
 2. AERIAL MAPPING OBTAINED FROM THE NEW YORK STATE CLEARINGHOUSE GIS WEB SITE. PHOTO DATED 2007.

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File Name: Figure 6 Shallow GroundwaterElevation Contour Map January 4 2010

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BELMONT ASPHALT PLANT**

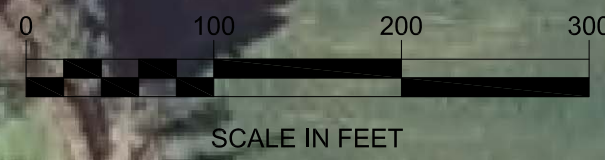
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Title

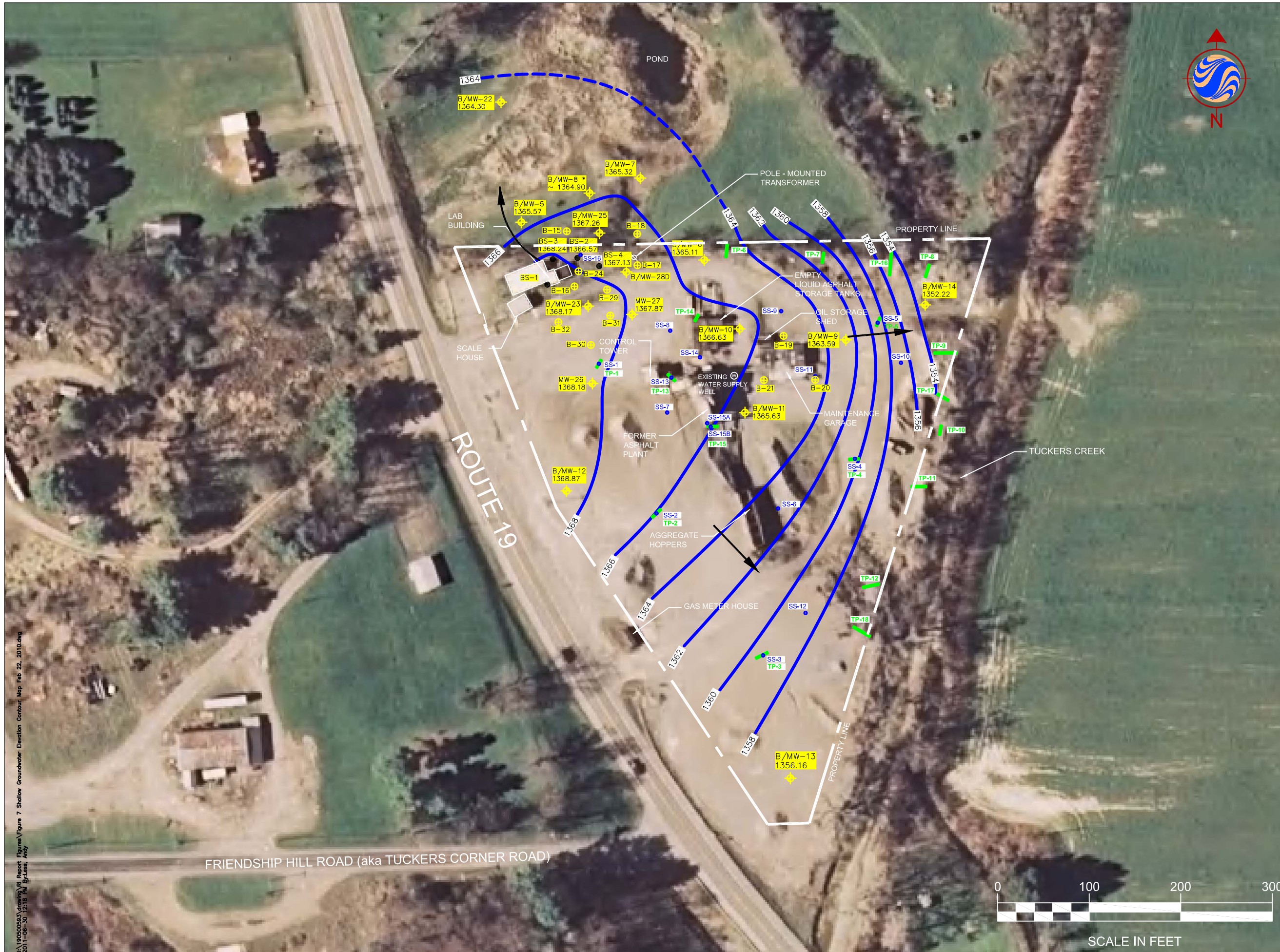
SHALLOW GROUNDWATER ELEVATION
CONTOUR MAP
JANUARY 4, 2011

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FIG. 6 of



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- ⊙ EXISTING WATER SUPPLY WELL
- ⊕ TEST BORING
- ⊕ RI TEST BORING/MONITORING WELL WITH GROUNDWATER ELEVATION (ft AMSL)
- SURFACE SOIL SAMPLE
- TEST PIT
- GROUNDWATER ELEVATION CONTOUR (ft AMSL) (DASHED WHERE INFERRED), FEB 22, 2011
- APPARENT DIRECTION OF GROUNDWATER FLOW

Notes

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2. AERIAL MAPPING OBTAINED FROM THE NEW YORK STATE CLEARINGHOUSE GIS WEB SITE. PHOTO DATED 2007.
3. * ELEVATION FOR B/MW-8 CONSIDERED APPROXIMATE BECAUSE THIS IS THE LEVEL AT WHICH THE WATER WAS FROZEN IN THE WELL.

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File Name: Figure 7 Shallow Groundwater Elevation Contour Map Feb 22, 2010

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Title

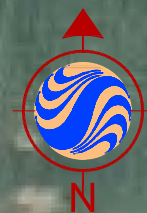
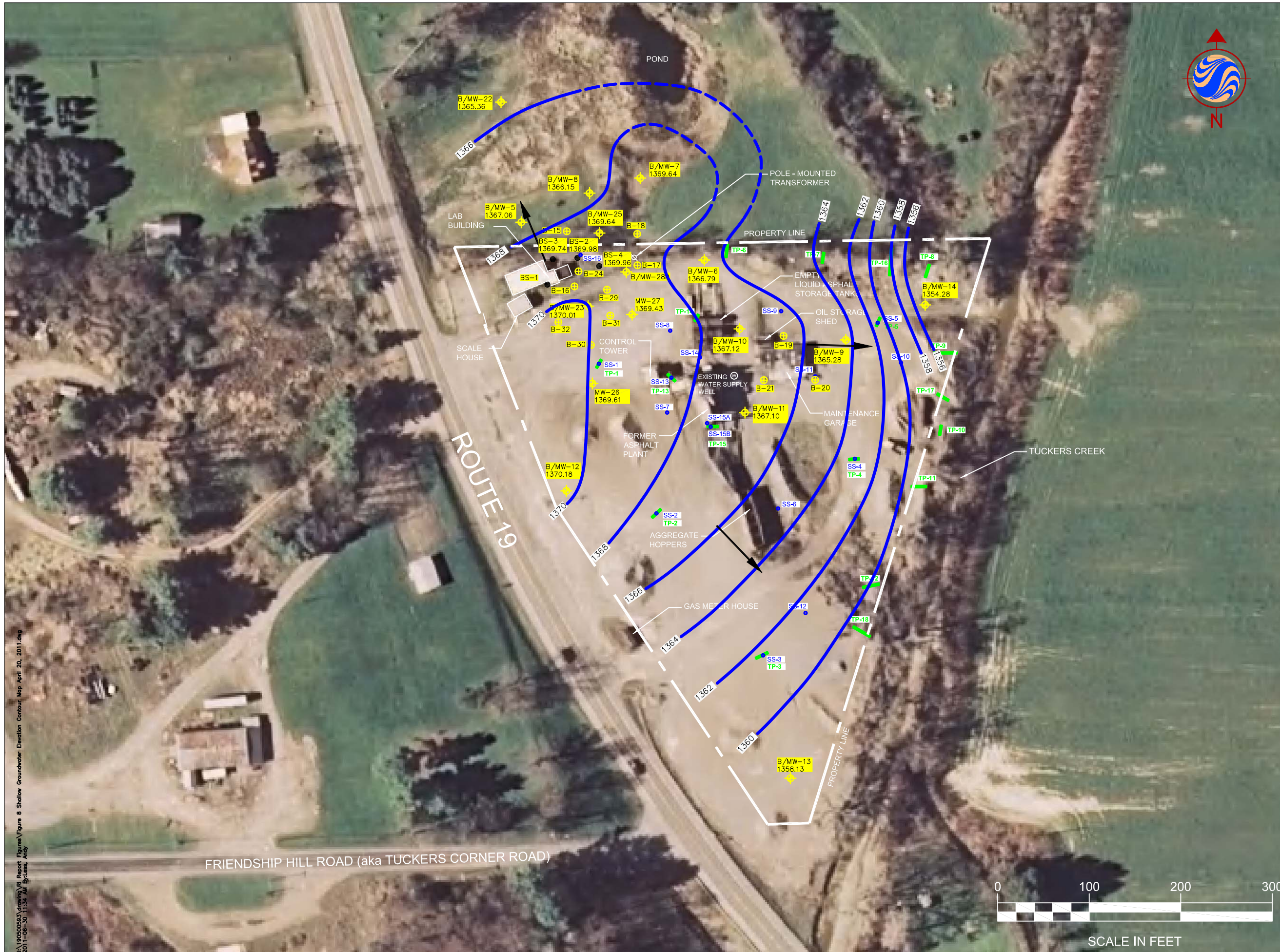
SHALLOW GROUNDWATER ELEVATION
 CONTOUR MAP
 FEBRUARY 22, 2011

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FIG. 7

of

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- ⊙ EXISTING WATER SUPPLY WELL
- ⊕ TEST BORING
- ⊕ RI TEST BORING/MONITORING WELL WITH GROUNDWATER ELEVATION (ft AMSL)
- SURFACE SOIL SAMPLE
- TEST PIT
- GROUNDWATER ELEVATION CONTOUR (ft AMSL) (DASHED WHERE INFERRED), APRIL 20, 2011
- APPARENT DIRECTION OF GROUNDWATER FLOW

Notes

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2. AERIAL MAPPING OBTAINED FROM THE NEW YORK STATE CLEARINGHOUSE GIS WEB SITE. PHOTO DATED 2007.

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File Name: Figure 8 Shallow Groundwater Elevation Contour Map April 20, 2011

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BELMONT ASPHALT PLANT

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Title
 SHALLOW GROUNDWATER ELEVATION
 CONTOUR MAP
 APRIL 20, 2011

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Drawing No.	Sheet	Revision

FIG. 8 of



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- ⊕ EXISTING WATER SUPPLY WELL
- ⊕ TEST BORING
- ⊕ RI TEST BORING / MONITORING WELL
- SURFACE SOIL SAMPLE
- TEST PIT
- CHLORINATED VOCs IN SOIL CONTOUR (ug/kg) (DASHED WHERE INFERRED)
- 7.3 NOV. 2010 - FEB. 2011 CHLORINATED VOC CONCENTRATION (ug/kg)
- (16.8) DEC. 2009 CHLORINATED VOC CONCENTRATION (ug/kg)

Notes

1. MAP REFERENCE : INFORMATION ON THIS MAP IS REFERENCED FROM MAP ENTITLED "PLAN OF LANDS OWNED BY: ALLEGANY BITUMENS, INC. SITUATE IN THE TOWN OF AMITY, COUNTY OF ALLEGANY, STATE OF NEW YORK, AND BEING A PORTION OF GREAT LOT # 18, TOWNSHIP #3, RANGE #2 OF THE ROBERT MORRIS RESERVE.
2. AERIAL MAPPING OBTAINED FROM THE NEW YORK STATE CLEARINGHOUSE GIS WEB SITE. PHOTO DATED 2007.
3. * WITH THE EXCEPTION OF BS-1 TO BS-4, WHICH WERE 2009 PHASE II BORINGS, ALL DATA CONTOURED ARE 2010 TO 2011 RI DATA.
4. AT WELLS WHERE A CONCENTRATION IS NOT LISTED, EITHER A SAMPLE WAS NOT TAKEN AT THE WATER TABLE (i.e. B/MW-9, ect.) OR THE SAMPLE WAS NOT ANALYZED FOR VOC's (MW-12 & MW-13 [NOT SHOWN]).
5. CONCENTRATIONS INCLUDE CHLORINATED ETHENES AND ETHANES.

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File Name: Figure 9 Contour map of Total Chlorinated VOC Concentrations in Soils

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Project/Client

**ALLEGANY BITUMENS
BELMONT ASPHALT PLANT**

BLADES HOLDING COMPANY, INC.

Title

CONTOUR MAP OF
TOTAL CHLORINATED VOC
CONCENTRATIONS IN SOILS AT OR NEAR
THE WATER TABLE (ug/kg), 2009-2011 *

Project No.	Scale
190500593	AS SHOWN

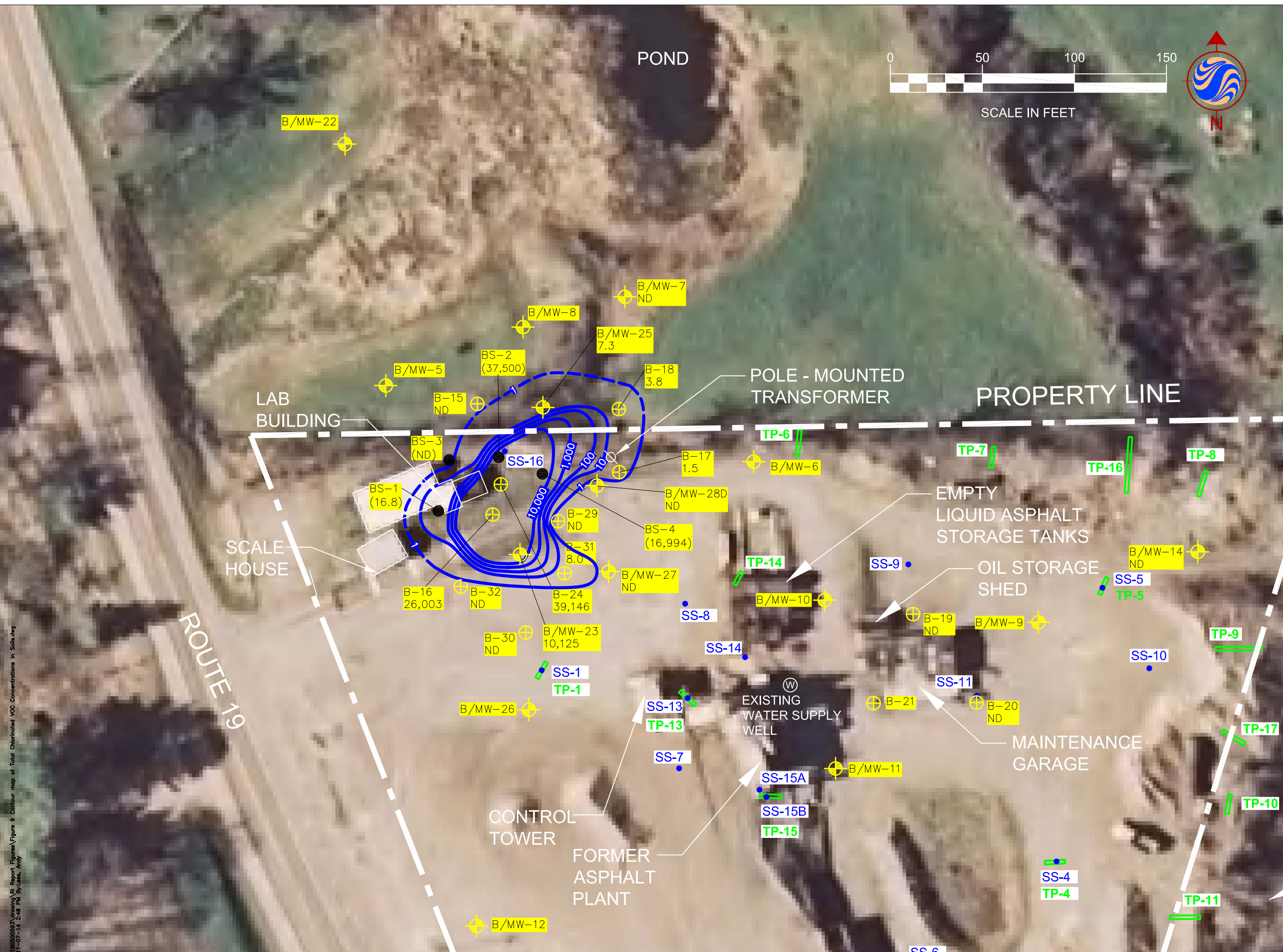
Drawing No.	Sheet	Revision

FIG. 9

of



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- ⊕ TEST BORING
- ⊕ RI TEST BORING / MONITORING WELL
- SURFACE SOIL SAMPLE
- TEST PIT
- CHLORINATED VOC GROUNDWATER CONTOUR (ug/L) (DASHED WHERE INFERRED)
- 6.6 JAN. - FEB. 2011 CHLORINATED VOC CONCENTRATION (ug/L)
- (1.3) DEC. 2009 CHLORINATED VOC CONCENTRATION (ug/L)

Notes

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2. AERIAL MAPPING OBTAINED FROM THE NEW YORK STATE CLEARINGHOUSE GIS WEB SITE. PHOTO DATED 2007.
3. * WITH THE EXCEPTION OF BS-1, WHICH WAS A TEMPORARY DEC. 2009 PHASE II WELL, ALL DATA CONTOURED ARE JAN TO FEB. 2011 RI DATA.
4. CONCENTRATIONS INCLUDE CHLORINATED ETHENES & ETHANES.

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File Name: Figure 10 Contour Map of Total VOC Concentrations in Groundwater

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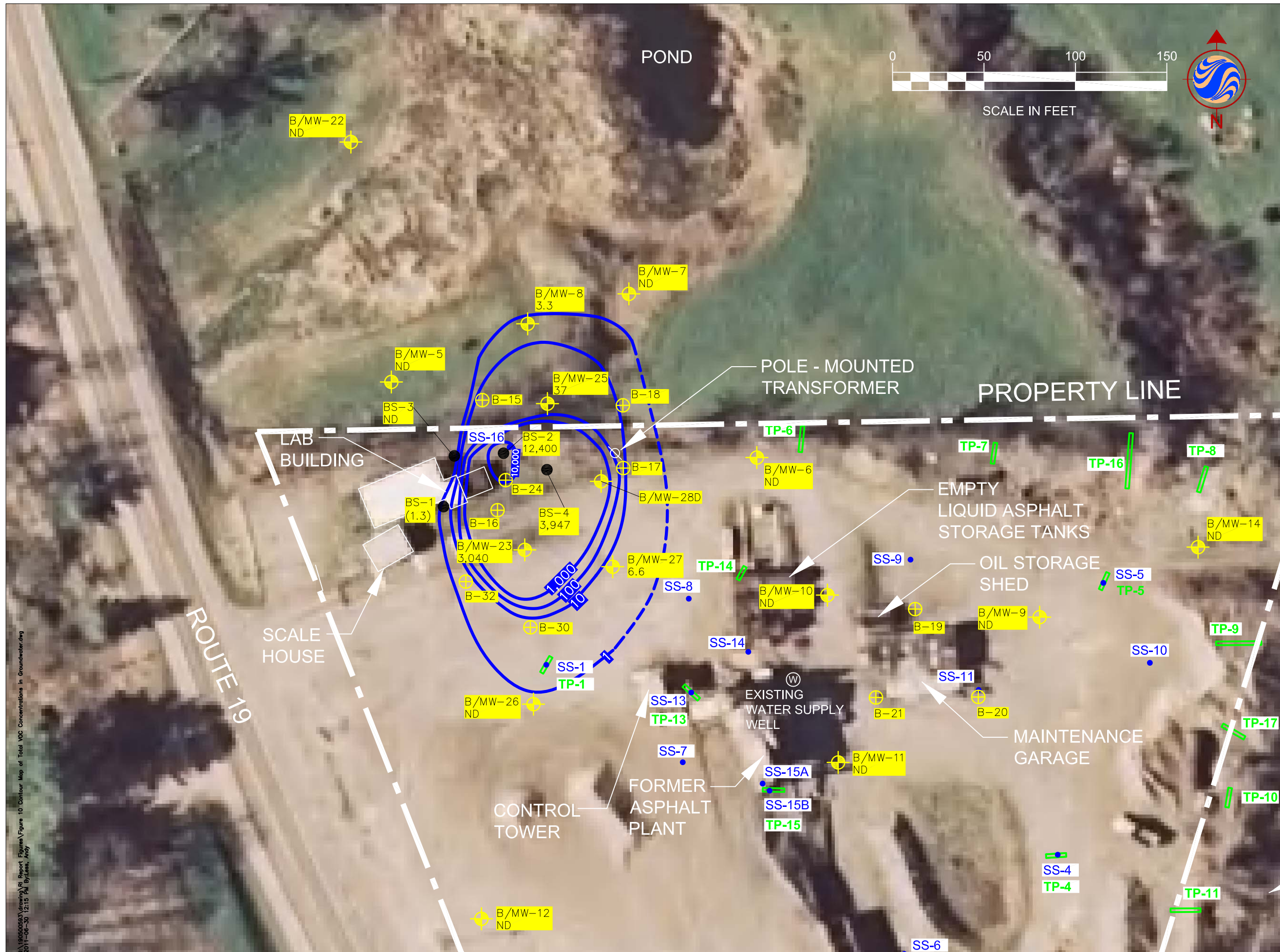
Title

CONTOUR MAP OF
TOTAL CHLORINATED VOC
CONCENTRATIONS IN SHALLOW
GROUNDWATER (ug / L), JAN - FEB 2011 *

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FIG. 10

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- ⊕ EXISTING WATER SUPPLY WELL
- ⊕ TEST BORING
RI TEST BORING / MONITORING WELL
- SURFACE SOIL SAMPLE
- ▭ TEST PIT
- CHLORINATED VOC GROUNDWATER CONTOUR (ug/L) (DASHED WHERE INFERRED)
- 8.5 APRIL 2011 CHLORINATED VOC CONCENTRATION (ug/L)
- (1.3) CHLORINATED VOC CONCENTRATION (ug/L) FROM SAMPLING ROUND PRIOR TO APRIL 2011

Notes

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2. AERIAL MAPPING OBTAINED FROM THE NEW YORK STATE CLEARINGHOUSE GIS WEB SITE. PHOTO DATED 2007.
3. * APRIL 2011 CONCENTRATIONS ARE PRESENTED WHERE SAMPLES WERE TAKEN. WHERE SAMPLES WERE NOT TAKEN , CONCENTRATIONS FROM PREVIOUS (DEC 2009 TO FEB 2011) SAMPLING ROUNDS ARE PRESENTED IN PARENTHESES.
4. CONCENTRATIONS INCLUDE CHLORINATED ETHENES AND ETHANES.

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File Name: Figure 11 Total Chlorinated VOC in Groundwater April 2011

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**ALLEGANY BITUMENS
 BELMONT ASPHALT PLANT**

BLADES HOLDING COMPANY, INC.

Title

CONTOUR MAP OF
 TOTAL CHLORINATED VOC
 CONCENTRATIONS IN SHALLOW
 GROUNDWATER (ug / L), APRIL 2011

Project No.	Scale
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FIG. 11

of



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TABLES

Table 1
Field Events Summary
Former Allegany Bitumens Belmont Asphalt Plant Remedial Investigation
5392 State Route 19
Amity, NY

Field Event	Locations	Start Date	End Date
Surface Soil Sampling and Test Pit Excavations	SS-1 to SS-15 and TP-1 to TP-18	10/25/2010	10/29/2010
Passive Soil Gas Module Installation	PSG-1 to PSG-28	11/2/2010	11/2/2010
Passive Soil Gas Module Retrieval	PSG-1 to PSG-28	11/15/2011	11/15/2011
Remove Pump	Existing Water Supply Well (WSW)	11/29/2011	11/29/2011
Monitoring Well and Boring Installation	B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25, B-15 through B-21, and B-24	11/29/2010	12/7/2010
Groundwater Sampling	WSW	12/7/2010	12/7/2010
Monitoring Well Development	B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25	12/7/2010	12/9/2010
Water Level Measurement	BS-2 through BS-4, B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25	1/4/2011	1/4/2011
Groundwater Sampling	BS-2 through BS-4, B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25	1/4/2011	1/7/2011
Hazardous Materials Survey	Site buildings and equipment, outdoor areas	1/31/2011	1/31/2011
Monitoring Well and Boring Installation	B/MW-26, B/MW-27, B/MW-28D, B-29 through B-32	2/1/2011	2/4/2011
Surface Soil Sampling	SS-16	2/3/2011	2/3/2011
Monitoring Well Development	B/MW-26, B/MW-27, B/MW-28D	2/4/2011	2/7/2011
Water Level Measurement	BS-2 through BS-4, B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25 through B/MW-27, B/MW-28D, WSW	2/22/2011	2/22/2011
Groundwater Sampling	B/MW-26, B/MW-27, B/MW-28D	2/22/2011	2/22/2011
Aquifer Testing	B/MW-9, B/MW-11, B/MW-12, B/MW-23, B/MW-25, MW-28D	2/23/2011	2/24/2011
Ecological Evaluation	Site and Off-Site	4/20/2011	4/20/2011
Water Level Measurement	BS-2 through BS-4, B/MW-5 through B/MW-14, B/MW-22, B/MW-23, B/MW-25 through B/MW-27, B/MW-28D, WSW	4/20/2011	4/20/2011
Groundwater Sampling	BS-2 through BS-4, B/MW-5 through B/MW-8, B/MW-22, B/MW-23, B/MW-25	4/20/2011	4/21/2011
Water Well and Surface Water Survey	Adjoining property	6/15/2011	6/15/2011
Investigation Derived Waste Drum Pickup	Drum Staging Area	6/15/2011	6/15/2011

Table 2
Summary of Variances from RI Work Plan
Former Allegany Bitumens Belmont Asphalt Plant Remedial Investigation
5392 State Route 19
Amity, NY

Variance Description	Location(s)	Report Section	Rationale
Radii for well survey changed from 1/2 mile to within 1/8 th mile upgradient and 1/4 mile down and side gradient from the site	N/A	3.1	The range for upgradient locations was limited to 1/8 th mile because there was no reason to believe that upgradient wells have been impacted. The range for the down and side gradient locations was limited to 1/4 mile due to the lack of impacts in groundwater samples from wells on the downgradient side of the site.
Surface soil sample not collected	SS-1	3.2	Additional test pit samples taken instead
Surface soil sample not collected	SS-2	3.2	Per NYSDEC recommendations
Additional surface soil samples collected	SS-13 through SS-16	3.2	Per NYSDEC recommendations
Depth of surface soil samples	SS-3, SS-5, SS-12	3.2	Per NYSDEC recommendations or because planned interval was too coarse to sample
Addition of Test pits	TP-13 through TP-15	3.3	Per NYSDEC recommendations
Addition of test pits	TP-16 through TP-18	3.3	To further define extent of materials observed at nearby test pits
Addition of subsurface soil samples from test pits	See Table 3	3.3 & 3.5.2	To help define the extent of potential impacts
Location Change	MW-5 through MW-7	3.5.1	Based on results of passive soil gas survey
Installation of additional wells	B/MW-22, B/MW-23, B/MW-25 through B/MW-27	3.5.1	To help define the extent of potential chlorinated VOC groundwater impacts
Installation of additional borings	B-24, B-29 through B-32	3.5.1	To help define the extent of potential chlorinated VOC soil impacts
Depth of deep well	MW-28D	3.5.1	Shallower than proposed due to absence of impacts and predominance of fine soils
Sampling method	Water Supply Well	3.10	To make purge volume manageable
No surface water, sediment or surface soil along Tuckers Creek needed	Pond on property to north and Tuckers Creek	3.12	No significant impacts reported in soil and groundwater upgradient of pond and Tucker Creek

**Table 3
Soil Sample Summary
Remedial Investigation
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York**

Location Purpose	Sample Location	Sample Identification	Sample Date	Depth	Sample Type	Parent Sample	Sampling Company	Laboratory	Laboratory Sample Delivery Group	Analysis Completed											
										TCL Volatile Organic Compounds by EPA Method 8260B	TCL Semivolatile Organic Compounds by EPA Method 8270C	TCL Pesticides by EPA Method 8081A	TCL Polychlorinated Biphenyls by EPA Method 8082	TAL Metals by Methods 6010B/7471 A	TCLP Volatiles by EPA Method 8260B	TCLP Metals by EPA Method 1311 & 6000/7000 Series	pH by EPA Method 9045C	Grain Size by Method ASTM D422			
Borehole/Monitoring Well	B/MW-5	BA-B5-S	12/2/2010	8 - 8.7 ft			STANTEC	TALBU	RTK1728	X											
Borehole/Monitoring Well	B/MW-6	BA-B6-S	12/1/2010	2 - 2.8 ft			STANTEC	TALBU	RTK1728	X	X										
Borehole/Monitoring Well	B/MW-7	BA-B7-S	12/2/2010	4.7 - 5.1 ft			STANTEC	TALBU	RTK1728	X											
Borehole/Monitoring Well	B/MW-8	BA-B8-S	12/1/2010	11.5 - 12 ft			STANTEC	TALBU	RTK1728	X											
Borehole/Monitoring Well	B/MW-9	BA-B9-S	11/30/2010	8 - 10 ft			STANTEC	TALBU	RTK1728	X	X	X	X	X							
Borehole/Monitoring Well	B/MW-10	BA-B10-S	11/30/2010	8 - 9.6 ft			STANTEC	TALBU	RTK1728	X	X	X	X	X							
Borehole/Monitoring Well	B/MW-11	BA-B11-S	11/30/2010	8 - 9 ft			STANTEC	TALBU	RTK1728	X	X										
Borehole/Monitoring Well	B/MW-12	BA-B12-S	11/29/2010	8 - 9 ft			STANTEC	TALBU	RTK1728		X										
Borehole/Monitoring Well	B/MW-13	BA-B13-S	11/29/2010	8 - 8.6 ft			STANTEC	TALBU	RTK1728		X										
Borehole/Monitoring Well	B/MW-14	BA-B14-S	11/30/2010	8 - 10 ft			STANTEC	TALBU	RTK1728	X	X	X	X	X							
Borehole	B-15	BA-B15-S	12/2/2010	8 - 10.3 ft			STANTEC	TALBU	RTK1728	X	X	X	X	X							
Borehole	B-16	BA-B16-S	12/3/2010	10.8 - 11.2 ft			STANTEC	TALBU	RTK1728	X											
Borehole	B-16	BA-B16-S2	12/3/2010	17.5 - 18 ft			STANTEC	TALBU	RTK1728	X											
Borehole	B-17	BA-B17-S	12/3/2010	4.6 - 6.6 ft			STANTEC	TALBU	RTK1728	X	X	X	X	X							
Borehole	B-18	BA-B18-S	12/2/2010	9.2 - 9.7 ft			STANTEC	TALBU	RTK1728	X											
Borehole	B-19	BA-B19-S	12/3/2010	4 - 4.9 ft			STANTEC	TALBU	RTK1728	X	X										
Borehole	B-20	BA-B20-S	12/3/2010	4 - 4.8 ft			STANTEC	TALBU	RTK1728	X	X										
Borehole/Monitoring Well	B/MW-22	BA-B22-S	12/3/2010	15.5 - 16 ft			STANTEC	TALBU	RTK1728	X											
Borehole/Monitoring Well	B/MW-23	BA-B23-S2	12/6/2010	10 - 10.6 ft			STANTEC	TALBU	RTK1728	X											
Borehole/Monitoring Well	B/MW-23	BA-B23-S	12/6/2010	8 - 8.5 ft			STANTEC	TALBU	RTK1728	X											
Borehole	B-24	BA-B24-S	12/6/2010	0.2 - 0.6 ft			STANTEC	TALBU	RTK1728	X											
Borehole	B-24	BA-B24-S3	12/6/2010	10 - 10.7 ft			STANTEC	TALBU	RTK1728	X											
Borehole	B-24	BA-B24-S2	12/6/2010	6 - 6.6 ft			STANTEC	TALBU	RTK1728	X											
Borehole/Monitoring Well	B/MW-25	BA-B25-S	12/6/2010	6 - 7 ft			STANTEC	TALBU	RTK1728	X											
Borehole/Monitoring Well	B/MW-26	BA-B26-S	2/3/2011	8 - 8.4 ft			STANTEC	TALBU	480-1342-1	X											
Borehole/Monitoring Well	B/MW-27	BA-B27-S	2/3/2011	0.4 - 1.4 ft			STANTEC	TALBU	480-1342-1	X											
Borehole/Monitoring Well	B/MW-27	BA-B27-S2	2/3/2011	6.5 - 7.3 ft			STANTEC	TALBU	480-1342-1	X											
Borehole/Monitoring Well	B/MW-27	BA-B27-S2/D	2/3/2011	6.5 - 7.3 ft	Duplicate	BA-B27-S2	STANTEC	TALBU	480-1342-1	X											
Borehole/Monitoring Well	B/MW-28D	BA-B28D-S2	2/1/2011	39 - 40 ft			STANTEC	TALBU	480-1342-1	X											
Borehole/Monitoring Well	B/MW-28D	BA-B28D-S	2/1/2011	5.3 - 5.8 ft			STANTEC	TALBU	480-1342-1	X											
Borehole	B-29	BA-B29-S	2/4/2011	4.5 - 6 ft			STANTEC	TALBU	480-1342-1	X											
Borehole	B-30	BA-B30-S	2/4/2011	4.6 - 5.4 ft			STANTEC	TALBU	480-1342-1	X											
Borehole	B-31	BA-B31-S	2/4/2011	0.3 - 0.9 ft			STANTEC	TALBU	480-1342-1	X											
Borehole	B-31	BA-B31-S2	2/4/2011	8 - 9 ft			STANTEC	TALBU	480-1342-1	X											
Borehole	B-32	BA-B32-S	2/7/2011	6 - 8.4 ft			STANTEC	TALBU	480-1342-1	X											
Geotechnical	B/MW-28D	BA-B28D-GT	2/1/2011	8 - 13 ft			STANTEC	TALBL	480-1363-1												X
Geotechnical	B/MW-28D	BA-B28D-GT2	2/1/2011	24 - 26 ft			STANTEC	TALBL	480-1363-1												X
Phase II Borehole	BS-S-1	BS-S-1	12/10/2009	8 - 9 ft			STANTEC	SPECTRUM	SB05469	X											
Phase II Borehole/Monitoring Well	BS-S-2	BS-S-2	12/10/2009	7 - 8 ft			STANTEC	SPECTRUM	SB05469	X											
Phase II Borehole/Monitoring Well	BS-S-3	BS-S-3	12/11/2009	8 - 9 ft			STANTEC	SPECTRUM	SB05538	X											
Phase II Borehole/Monitoring Well	BS-S-4	BS-S-4	12/11/2009	8 - 10 ft			STANTEC	SPECTRUM	SB05538	X											

Table 3
Soil Sample Summary
Remedial Investigation
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Location Purpose	Sample Location	Sample Identification	Sample Date	Depth	Sample Type	Parent Sample	Sampling Company	Laboratory	Laboratory Sample Delivery Group	Analysis Completed									
										TCL Volatile Organic Compounds by EPA Method 8260B	TCL Semivolatile Organic Compounds by EPA Method 8270C	TCL Pesticides by EPA Method 8081A	TCL Polychlorinated Biphenyls by EPA Method 8082	TAL Metals by Methods 6010B/7471 A	TCLP Volatiles by EPA Method 8260B	TCLP Metals by EPA Method 1311 & 6000/7000 Series	pH by EPA Method 9045C	Grain Size by Method ASTM D422	
Surface Soil	SS-3	BA-SS3-S	10/26/2010	6 - 7 ft			STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-4	BA-SS-4-S	10/26/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-5	BA-SS5-S	10/27/2010	1.4 - 1.4 ft			STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-6	BA-SS-6-S	10/25/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X	X	X	X					
Surface Soil	SS-6	BA-SS-6-S/D	10/25/2010	0 - 2 in	Duplicate	RTJ1956-01	STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-7	BA-SS-7-S	10/25/2010	0 - 2 in	MS/MSD		STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-8	BA-SS-8-S	10/25/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X	X	X	X					
Surface Soil	SS-9	BA-SS-9-S	10/26/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-10	BA-SS-10-S	10/25/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-11	BA-SS-11-S	10/25/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X								
Surface Soil	SS-12	BA-SS-12-S	10/25/2010	1 - 3 in			STANTEC	TALBU	RTJ1956		X	X	X	X					
Surface Soil	SS-13	BA-SS13-S	10/28/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X		X						
Surface Soil	SS-14	BA-SS14-S	10/28/2010	0 - 1 in			STANTEC	TALBU	RTJ1956		X	X							
Surface Soil	SS-15	BA-SS15-S	10/28/2010	0 - 2 in			STANTEC	TALBU	RTJ1956		X	X							
Surface Soil	SS-16	BA-SS16-S	2/3/2011	0 - 2 in			STANTEC	TALBU	480-1342-1		X	X	X	X					
Surface Soil	N/A	BA-SS-RB-W	10/25/2010	-	Rinsate		STANTEC	TALBU	RTJ1956		X	X	X	X					
Test Pit	TP-1	BA-TP-1-S	10/26/2010	1.4 - 1.8 ft			STANTEC	TALBU	RTJ1956		X								
Test Pit	TP-1	BA-TP-1-S2	10/26/2010	2.5 - 3 ft			STANTEC	TALBU	RTJ1956		X								
Test Pit	TP-2	BA-TP2-S	10/26/2010	9.5 - 10 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-3	BA-TP3-S	10/26/2010	10 - 18.5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-4	BA-TP4-S	10/26/2010	9 - 9.5 ft			STANTEC	TALBU	RTJ2029		X	X	X	X	X				
Test Pit	TP-5	BA-TP5-S	10/27/2010	3.5 - 4 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-7	BA-TP7-S	10/27/2010	0.5 - 2.5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-7	BA-TP7-S2	10/27/2010	2.5 - 3 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-8	BA-TP8-S	10/27/2010	2 - 4 ft			STANTEC	TALBU	RTJ2029		X	X	X	X	X				
Test Pit	TP-8	BA-TP8-S/D	10/27/2010	2 - 4 ft	Duplicate	RTJ2137-01	STANTEC	TALBU	RTJ2029		X	X	X	X	X				
Test Pit	TP-8	BA-TP8-S2	10/27/2010	4.5 - 5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-8	BA-TP8-S3	10/27/2010	5 - 5.5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-9	BA-TP9-S	10/27/2010	0 - 3 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-10	BA-TP10-S	10/27/2010	6 - 6.5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-11	BA-TP11-S	10/28/2010	4 - 5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-11	BA-TP11-S2	10/28/2010	5 - 5.5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-12	BA-TP12-S	10/28/2010	4 - 5 ft			STANTEC	TALBU	RTJ2029		X								
Test Pit	TP-13	BA-TP13-S	10/29/2010	2 - 2.5 ft			STANTEC	TALBU	RTJ2029				X	X	X				
Test Pit	TP-13	BA-TP13-S	10/29/2010	2 - 2.5 ft	MS/MSD		STANTEC	TALBU	RTJ2029		X	X							
Test Pit	TP-14	BA-TP14-S	10/29/2010	3 ft			STANTEC	TALBU	RTJ2029		X	X							
Test Pit	TP-14	BA-TP14-S/D	10/29/2010	3 ft	Duplicate	RTK0343-07	STANTEC	TALBU	RTJ2029		X	X							
Test Pit	TP-14	BA-TP14-S2	10/29/2010	6 ft			STANTEC	TALBU	RTJ2029		X	X							
Test Pit	TP-15	BA-TP15-S	10/29/2010	4 - 4.5 ft			STANTEC	TALBU	RTJ2029		X	X							
Test Pit	TP-17	BA-TP17-S	10/29/2010	3.5 - 4 ft			STANTEC	TALBU	RTJ2029		X	X	X	X	X				
Test Pit	TP-18	BA-TP18-S	10/29/2010	9.5 - 10 ft			STANTEC	TALBU	RTJ2029		X	X	X	X	X				
Test Pit	N/A	BA-TP-RB-W	10/26/2010	-	Rinsate		STANTEC	TALBU	RTJ1956		X	X	X	X	X				

**Table 3
Soil Sample Summary
Remedial Investigation
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York**

Location Purpose	Sample Location	Sample Identification	Sample Date	Depth	Sample Type	Parent Sample	Sampling Company	Laboratory	Laboratory Sample Delivery Group	Analysis Completed									
										TCL Volatile Organic Compounds by EPA Method 8260B	TCL Semivolatile Organic Compounds by EPA Method 8270C	TCL Pesticides by EPA Method 8081A	TCL Polychlorinated Biphenyls by EPA Method 8082	TAL Metals by Methods 6010B/7471 A	TCLP Volatiles by EPA Method 8260B	TCLP Metals by EPA Method 1311 & 6000/7000 Series	pH by EPA Method 9045C	Grain Size by Method ASTM D422	
Waste Characterization	IDW Drums	BA-DRUM8/9-S	1/31/2011	-			STANTEC	TALBU	480-1355-1								X		
	Burn Drum	BA-DRUM32-S	2/24/2011	-			STANTEC	TALBU	480-2035-1	X	X		X					X	X

- Notes:**
- EPA United States Environmental Protection Agency
 - MS Matrix Spike
 - MSD Matrix Spike Duplicate
 - Rinsate Rinsate Blank
 - TALBL Test America Laboratories, Inc., Burlington, VT
 - TALBU Test America Laboratories, Inc., Buffalo, NY
 - SPECTRUM Spectrum Analytical Inc., Agawam, MA
 - N/A Not applicable.
 - TCL Target Compound List
 - TAL Target Analyte List
 - TCLP Toxicity Characteristic Leachate Procedure
 - in inch
 - ft feet

Table 4
Monitoring Well Completion Summary
Former Allegany Bitumens Belmont Asphalt Plant Remedial Investigation
5392 State Route 19
Amity, NY

Well ID	Installation Date	Event	Northing	Easting	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Diameter (in)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Sand Interval (ft bgs)	Bentonite Interval (ft bgs)
BS-2	12/10/2009	Phase II	814078.59	1292607.50	1375.39	1378.06*	1.0	14	4 - 14	2 - 14	0 - 2
BS-3	12/11/2009	Phase II	814077.11	1292580.60	1376.00	1379.24*	1.0	14	4 - 14	2 - 14	0 - 2
BS-4	12/11/2009	Phase II	814069.57	1292631.24	1375.28	1378.31*	1.0	14	4 - 14	2 - 14	0 - 2
MW-5	12/2/2010	RI	814117.55	1292546.17	1367.57	1370.24	2.0	13	3 - 13	2.5 - 13	1.5 - 2.5
MW-6	12/1/2010	RI	814076.20	1292746.04	1372.72	1375.40	2.0	13	3 - 13	2.3 - 13	1.5 - 2.3
MW-7	12/2/2010	RI	814165.77	1292676.08	1375.64	1378.68	2.0	14	4 - 14	3 - 14	1.5 - 3
MW-8	12/1/2010	RI	814149.38	1292620.72	1365.91	1368.70	2.0	13	3 - 13	2.5 - 13	1.4 - 2.5
MW-9	11/30/2010	RI	813988.92	1292900.73	1368.80	1371.68	2.0	13	3 - 13	2.5 - 13	1.5 - 2.5
MW-10	11/30/2010	RI	814000.98	1292784.66	1370.90	1373.76	2.0	13	3 - 13	2.4 - 13	1.5 - 2.4
MW-11	11/30/2010	RI	813909.43	1292790.53	1369.87	1372.39	2.0	13	3 - 13	2.5 - 13	1.5 - 2.5
MW-12	11/29/2010	RI	813823.90	1292595.43	1378.46	1381.50	2.0	16	6 - 16	4 - 16	1.6 - 4
MW-13	11/29/2010	RI	813509.88	1292840.19	1371.24	1374.00	2.0	16	6 - 16	3.8 - 16	2 - 3.8
MW-14	11/30/2010	RI	814027.22	1292987.36	1363.62	1366.54	2.0	20	10 - 20	7.5 - 20	5.3 - 7.5
MW-22	12/3/2010	RI	814248.82	1292524.03	1365.66	1368.32	2.0	13	3 - 13	2.5 - 13	1.5 - 2.5
MW-23	12/7/2010	RI	814025.72	1292619.12	1374.46	1377.59	2.0	13	3 - 13	2.4 - 13	1.5 - 2.4
MW-25	12/6/2010	RI	814105.71	1292631.54	1376.07	1378.52	2.0	16	6 - 16	4 - 16	2 - 4
MW-26	2/4/2011	RI	813941.31	1292623.84	1373.07	1375.79	2.0	15	5 - 15	3.2 - 15	2 - 3.2
MW-27	2/3/2011	RI	814016.67	1292667.17	1372.76	1375.28	2.0	15	5 - 15	3.1 - 15	2 - 3.1
MW-28D	2/1/2011	RI	814063.23	1292660.84	1374.40	1377.17	2.0	40	30 - 40	27.7 - 40	25 - 27.7

Notes:

ft AMSL Feet above mean sea level (NAVD 88)

ft bgs Feet below ground surface

in Inches

RI Remedial Investigation

* Well casing stick-ups were extended prior to the installation of an outer casing in December 2010. Elevations given herein reflect this extension and are therefore different from the elevation at the time of well installation in December 2009.

Table 5
Water Level Summary
Former Allegany Bitumens Belmont Asphalt Plant Remedial Investigation
5392 State Route 19
Amity, NY

Well ID	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Type	January 4, 2011		February 22, 2011		April 20, 2011	
				Water Level (ft BTOIC)	Water Elevation (ft AMSL)	Water Level (ft BTOIC)	Water Elevation (ft AMSL)	Water Level (ft BTOIC)	Water Elevation (ft AMSL)
BS-2	1375.39	1378.06	Shallow	11.28	1366.78	11.49	1366.57	8.08	1369.98
BS-3	1376.00	1379.24	Shallow	10.43	1368.81	11	1368.24	9.505	1369.735
BS-4	1375.28	1378.31	Shallow	11.27	1367.04	11.18	1367.13	8.35	1369.96
MW-5	1367.57	1370.24	Shallow	4.09	1366.15	4.73	1365.51	3.18	1367.06
MW-6	1372.72	1375.40	Shallow	9.93	1365.47	10.29	1365.11	8.61	1366.79
MW-7	1375.64	1378.68	Shallow	12.79	1365.89	13.36	1365.32	9.04	1369.64
MW-8	1365.91	1368.70	Shallow	3.18	1365.52	Frozen at 3.80	Frozen at 1364.90	2.55	1366.15
MW-9	1368.80	1371.68	Shallow	7.68	1364.00	8.09	1363.59	6.40	1365.28
MW-10	1370.90	1373.76	Shallow	7.48	1366.28	7.13	1366.63	6.64	1367.12
MW-11	1369.87	1372.39	Shallow	6.09	1366.30	6.76	1365.63	5.29	1367.1
MW-12	1378.46	1381.50	Shallow	12.24	1369.26	12.63	1368.87	11.32	1370.18
MW-13	1371.24	1374.00	Shallow	17.54	1356.46	17.84	1356.16	15.87	1358.13
MW-14	1363.62	1366.54	Shallow	13.64	1352.90	14.32	1352.22	12.26	1354.28
MW-22	1365.66	1368.32	Shallow	3.48	1364.84	4.02	1364.3	2.96	1365.36
MW-23	1374.46	1377.59	Shallow	10.34	1367.25	8.82	1368.77	7.58	1370.01
MW-25	1376.07	1378.52	Shallow	11.69	1366.83	11.26	1367.26	8.88	1369.64
MW-26	1373.07	1375.79	Shallow	NM	NM	7.61	1368.18	6.18	1369.61
MW-27	1372.76	1375.28	Shallow	NM	NM	7.41	1367.87	5.85	1369.43
MW-28D	1374.40	1377.17	Deep	NM	NM	18.93	1358.24	16.90	1360.27
WSW	1370.79	1371.01	Deep	NM	NM	12.15	1358.86	10.85	1360.16

Notes:

DTW Depth to water
ft AMSL Feet above mean sea level (NAVD 88)
ft BTOIC Feet below top of inner casing
NM Not measured
TOIC Top of inner casing

**Table 6
Groundwater Sample Summary
Remedial Investigation
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York**

Location Purpose	Sample Location	Sample Identification	Sample Date	Sample Type	Parent Sample	Sampling Company	Laboratory	Laboratory Sample Delivery Group	Analysis Completed					
									TCL Volatile Organic Compounds by EPA Method 8260B	TCL Semivolatile Organic Compounds by EPA Method 8270C	TCL Pesticides by EPA Method 8081A	TCL Polychlorinated Biphenyls by EPA Method 8082	TAL Metals by Methods 6010B/7471A	
Monitoring Well	BS-2	BA-BS2-W	1/5/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	BS-2	BA-BS2-R2-W	4/21/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	BS-3	BA-BS3-W	1/5/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	BS-3	BA-BS3-R2-W	4/21/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	BS-4	BA-BS4-W	1/4/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	BS-4	BA-BS4-R2-W	4/21/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-5	BA-MW5-W	1/5/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	B/MW-5	BA-MW5-RW-W	4/20/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-6	BA-MW6-W	1/6/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	B/MW-6	BA-MW6-R2-W	4/21/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-7	BA-MW7-W	1/5/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	B/MW-7	BA-MW7-R2-W	4/20/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-8	BA-MW8-W	1/7/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	B/MW-8	BA-MW8-R2-W	4/20/2011	MS/MSD		STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-9	BA-MW9-W	1/5/2011			STANTEC	TALBU	480-548-1	X	X	X	X	X	X
Monitoring Well	B/MW-9	BA-MW9-W/D	1/5/2011	Duplicate	BA-MW9-W	STANTEC	TALBU	480-548-1	X	X	X	X	X	X
Monitoring Well	B/MW-10	BA-MW10-W	1/6/2011			STANTEC	TALBU	480-548-1	X	X				
Monitoring Well	B/MW-11	BA-MW11-W	1/6/2011			STANTEC	TALBU	480-548-1	X	X	X	X	X	X
Monitoring Well	B/MW-12	BA-MW12-W	1/6/2011			STANTEC	TALBU	480-548-1	X	X				
Monitoring Well	B/MW-13	BA-MW13-W	1/6/2011			STANTEC	TALBU	480-548-1	X	X				
Monitoring Well	B/MW-14	BA-MW14-W	1/6/2011			STANTEC	TALBU	480-548-1	X	X				
Monitoring Well	B/MW-22	BA-MW22-W	1/5/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	B/MW-22	BA-MW22-R2-W	4/20/2011			STANTEC	TALBU	480-4050-1	X					
Monitoring Well	B/MW-23	BA-MW23-W	1/7/2011			STANTEC	TALBU	480-548-1	X					
Monitoring Well	B/MW-23	BA-MW23-R2-W	4/21/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-23	BA-MW23-R2-W/D	4/21/2011	Duplicate	BA-MW23-R2-W	STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-25	BA-MW25-W	1/5/2011			STANTEC	TALBU	480-548-1	X	X	X	X	X	X
Monitoring Well	B/MW-25	BA-MW-25-R2-W	4/20/2011			STANTEC	TALAM	480-4050-1	X					
Monitoring Well	B/MW-26	BA-MW26-W	2/22/2011	MS/MSD		STANTEC	TALBU	480-1891-1	X					
Monitoring Well	B/MW-27	BA-MW27-W	2/22/2011			STANTEC	TALBU	480-1891-1	X					
Monitoring Well	B/MW-27	BA-MW27-W/D	2/22/2011	Duplicate		STANTEC	TALBU	480-1891-1	X					
Monitoring Well	B/MW-28D	BA-MW28D-W	2/22/2011			STANTEC	TALBU	480-1891-1	X					
Monitoring Well	Trip Blank	BA-TB	12/7/2010	Trip Blank		STANTEC	TALBU	RTL0627	X					
Monitoring Well	Trip Blank	BA-TB010411-W	1/4/2011	Trip Blank		STANTEC	TALBU	480-548-1	X					
Monitoring Well	Trip Blank	BA-TB010511-W	1/5/2011	Trip Blank		STANTEC	TALBU	480-548-1	X					
Monitoring Well	Trip Blank	BA-TB010611-W	1/6/2011	Trip Blank		STANTEC	TALBU	480-548-1	X					
Monitoring Well	Trip Blank	BA-TB022211-W	2/22/2011	Trip Blank		STANTEC	TALBU	480-1891-1	X					
Monitoring Well	Trip Blank	BA-TB-042011-W	4/20/2011	Trip Blank		STANTEC	TALAM	480-4050-1	X					
Phase II Temporary Monitoring Well	BS-1	BS-GW-1	12/10/2009			STANTEC	SPECTRUM	SB05469	X					
Phase II Monitoring Well	BS-2	BS-GW-2	12/10/2009			STANTEC	SPECTRUM	SB05469	X					
Phase II Monitoring Well	BS-3	BS-GW-3	12/11/2009			STANTEC	SPECTRUM	SB05538	X					
Phase II Monitoring Well	BS-4	BS-GW-4	12/11/2009			STANTEC	SPECTRUM	SB05538	X					
Phase II Monitoring Well	Trip Blank	TRIP BLANK	12/11/2009	Trip Blank		STANTEC	SPECTRUM	SB05538	X					
Water Supply Well	WSW	BA-WSW-W	12/7/2010	MS/MSD		STANTEC	TALBU	RTL0627	X	X	X	X	X	X

See notes on next page.

Table 6
Groundwater Sample Summary
Remedial Investigation
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Notes:	
EPA	United States Environmental Protection Agency
Rinsate	Rinsate Blank
TALAM	Test America Laboratories Inc., Amherst, NY
TALBU	Test America Laboratories, Inc., Buffalo, NY
SPECTRUM	Spectrum Analytical Inc., Agawam, MA
TCL	Target Compound List
TAL	Target Analyte List

Table 7
Summary of Groundwater Field Parameters
Former Allegany Bitumens Belmont Asphalt Plant Remedial Investigation
5392 State Route 19
Amity, NY

Sample Location		WSW	BS-2	BS-3	BS-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10
Sample Date		7-Dec-10	5-Jan-11	5-Jan-11	4-Jan-11	5-Jan-11	6-Jan-11	5-Jan-11	7-Jan-11	5-Jan-11	6-Jan-11
Purge Methodology		Low Flow	Volumetric	Volumetric	Volumetric	Low Flow	Volumetric	Volumetric	Low Flow	Low Flow	Low Flow
Purge Method		Grundfos Pump	Bailer	Bailer	Bailer	Peristaltic Pump	Bailer	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump
Sampling Method		Grundfos Pump	Bailer	Bailer	Bailer	Peristaltic Pump	Bailer	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump
Field Parameters	Units										
Conductivity	mS/cm	0.90	0.657	0.946	0.790	1.01	0.843	0.528	1.04	0.373	0.445
Dissolved Oxygen	mg/L	1.96	-	-	-	0.14	7.05	4.29	0.06	5.72	0.48
Oxidation Reduction Potential	mV	-201	142	105	260	-112	73	115	40	253	54
pH	S.U.	7.97	7.35	6.87	8.58	7.76	7.45	7.50	6.40	6.32	6.68
Temperature	deg c	11.22	7.44	8.81	7.59	4.17	8.28	8.43	4.33	4.12	5.84
Turbidity	NTU	6.77	>1000	>1000	>1000	16.2	210	4.14	3.84	0.00	1.00

Sample Location		MW-11	MW-12	MW-13	MW-14	MW-22	MW-23	MW-25	MW-26	MW-27	MW-28D
Sample Date		6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	5-Jan-11	7-Jan-11	4-Jan-11	22-Feb-11	22-Feb-11	22-Feb-11
Purge Methodology		Low Flow	Volumetric	Volumetric	Volumetric	Low Flow	Volumetric	Volumetric	Low Flow	Low Flow	Volumetric
Purge Method		Peristaltic Pump	Peristaltic Pump	Bailer	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Bailer
Sampling Method		Peristaltic Pump	Peristaltic Pump	Bailer	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Peristaltic Pump	Bailer
Field Parameters	Units										
Conductivity	mS/cm	0.462	1.87	1.02	0.605	0.586	0.746	0.203	0.632	0.626	0.461
Dissolved Oxygen	mg/L	1.25	0.39	-	0.25	0.11	4.28	-	0.00	0.00	-
Oxidation Reduction Potential	mV	71	20	-58	-18	-60	145	246	18	98	79
pH	S.U.	6.75	6.45	6.91	6.98	7.46	6.65	9.08	6.45	6.56	7.18
Temperature	deg c	4.19	9.78	10.53	11.25	3.95	11.11	6.23	4.63	3.01	9.16
Turbidity	NTU	0.46	19.3	87.1	57.3	9.61	10.76	>1000 / 24.4 ¹	28.6	1.57	>1000

Sample Location		BS-2	BS-3	BS-4	MW-5	MW-6	MW-7	MW-8	MW-22	MW-23	MW-25
Sample Date		21-Apr-11	21-Apr-11	21-Apr-11	20-Apr-11	21-Apr-11	20-Apr-11	20-Apr-11	20-Apr-11	21-Apr-11	20-Apr-11
Purge Methodology		Volumetric	Volumetric	Volumetric	Low Flow	Volumetric	Volumetric	Low Flow	Low Flow	Volumetric	Volumetric
Purge Method		Bailer	Bailer	Bailer	Peristaltic Pump	Bailer	Bailer	Peristaltic Pump	Peristaltic Pump	Bailer	Bailer
Sampling Method		Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	Peristaltic Pump	Peristaltic Pump	Bailer	Bailer
Field Parameters	Units										
Conductivity	mS/cm	0.500	0.919	0.687	1.45	0.737	0.144	0.9-0.999 ²	0.9-0.999 ²	0.424	0.089
Dissolved Oxygen	mg/L	-	-	-	0.00	-	-	0.00	0.00	-	-
Oxidation Reduction Potential	mV	138	140	149	-128	100	60	95	-37	136	105
pH	S.U.	7.12	6.85	6.84	7.22	7.40	7.66	6.42	7.1	6.78	6.50
Temperature	deg c	5.18	5.92	5.31	7.98	5.89	6.08	9.04	7.95	6.24	5.58
Turbidity	NTU	1224	>4000	>4000	9.1	38.9	3096	5.43	2.19	59.6	>4000

¹Turbidity at the time of sampling on 1/4/2011 for all paramters except metals was >1000 NTUs. The turbidity at the time of sampling on 1/5/2011 for metals was 28.4 NTUs.

²Conductivity reading could not be precisely determined. Reading was likely at the low point or high point of one of the instrument's sensor ranges. Sensor checked with calibration standard and it read precisely.

Table 7
Summary of Groundwater Field Parameters
Former Allegany Bitumens Belmont Asphalt Plant Remedial Investigation
5392 State Route 19
Amity, NY

Notes:

-	not measured
deg c	degrees Celsius
mg/l	milligrams per liter
mS/cm	milliSiemens per centimeter
mV	millivolts
NTU	nephelometric turbidity unit
S.U.	standard units
WSW	water supply well

TABLE 8
SUMMARY OF HYDRAULIC CONDUCTIVITY TEST RESULTS

Former Allegany Bitumens Belmont Asphalt Plant
 Remedial Investigation
 5392 State Route 19
 Amity, NY

MONITORING WELLS	TEST TYPE	HYDRAULIC CONDUCTIVITY (cm/s)	AVERAGE HYDRAULIC CONDUCTIVITY (cm/s)
MW-9	Falling Head	9.8×10^{-3}	9.8×10^{-3}
	Rising Head	9.0×10^{-3}	9.2×10^{-3}
	Rising Head	9.4×10^{-3}	
MW-11	Falling Head	1.3×10^{-1}	1.3×10^{-1}
	Rising Head	1.6×10^{-1}	1.6×10^{-1}
	Rising Head	1.6×10^{-1}	
MW-12	Falling Head	1.4×10^{-3}	1.4×10^{-3}
	Rising Head	3.1×10^{-3}	3.1×10^{-3}
	Rising Head	3.2×10^{-3}	
MW-23	Falling Head	2.3×10^{-2}	2.3×10^{-2}
	Rising Head	1.7×10^{-2}	1.7×10^{-2}
	Rising Head	1.7×10^{-2}	
MW-25	Falling Head	4.9×10^{-4}	4.9×10^{-4}
	Rising Head	8.3×10^{-3}	8.6×10^{-3}
	Rising Head	8.9×10^{-3}	
MW-28D	Falling Head	4.9×10^{-5}	4.9×10^{-5}
	Rising Head	3.4×10^{-5}	3.4×10^{-5}

Notes:

1. Testing conducted with solid PVC slugs.
2. All data analysis completed using AQUTESOLV 4.02 Professional (2006) and the Bower-Rice Method (1976).

Key:

cm/s = centimeters per second

Table 9
Summary of Analytical Results in Surface Soil
Remedial Investigation
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Sample Location			SS-13	SS-14	SS-15
Sample Date			28-Oct-10	28-Oct-10	28-Oct-10
Sample ID			BA-SS13-S	BA-SS14-S	BA-SS15-S
Sample Depth			0 - 2 in	0 - 1 in	0 - 2 in
Sampling Company			STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM
Laboratory Work Order			RTJ1956	RTJ1956	RTJ1956
Laboratory Sample ID			RTK0340-01	RTK0340-02	RTK0340-03
Sample Type	Units	6NYCRR			
General Chemistry					
Total Solids	%	n/v	80	94	90
Volatile Organic Compounds					
Acetone	µg/kg	500000 ^A 1000000 ^B	31 U	27 U	28 U
Benzene	µg/kg	44000 ^A 89000 ^B	6.2 U	5.3 U	5.5 U
Bromodichloromethane	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Bromoform (tribromomethane)	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Bromomethane (Methyl bromide)	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Carbon Disulfide	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	22000 ^A 44000 ^B	6.2 U	5.3 U	5.5 U
Chlorinated Fluorocarbon (Freon 113)	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Chlorobenzene (Monochlorobenzene)	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Chloroethane (Ethyl Chloride)	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Chloroform	µg/kg	350000 ^A 700000 ^B	6.2 U	5.3 U	5.5 U
Chloromethane	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Cyclohexane	µg/kg	n/v	6.2 U	5.3 U	5.5 U
Dibromo-3-Chloropropane (DBCP), 1,2-	µg/kg	n/v	6.2 U	5.3 U	5.5 U
Dibromochloromethane	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Dichlorobenzene, 1,2-	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Dichlorobenzene, 1,3-	µg/kg	280000 ^A 560000 ^B	6.2 U	5.3 U	5.5 U
Dichlorobenzene, 1,4-	µg/kg	130000 ^A 250000 ^B	6.2 U	5.3 U	5.5 U
Dichlorodifluoromethane	µg/kg	n/v	6.2 U	5.3 U	5.5 U
Dichloroethane, 1,1-	µg/kg	240000 ^A 480000 ^B	6.2 U	5.3 U	5.5 U
Dichloroethane, 1,2-	µg/kg	30000 ^A 60000 ^B	6.2 U	5.3 U	5.5 U
Dichloroethylene, 1,1-	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Dichloroethylene, cis-1,2-	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Dichloroethylene, trans-1,2-	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Dichloropropane, 1,2-	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Dichloropropene, cis-1,3-	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Dichloropropene, trans-1,3-	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Ethylbenzene	µg/kg	390000 ^A 780000 ^B	6.2 U	5.3 U	5.5 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	n/v	6.2 U	5.3 U	5.5 U
Hexanone, 2-	µg/kg	500000 ^A n/v ^B	31 U	27 U	28 U
Isopropylbenzene	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Methyl Acetate	µg/kg	n/v	6.2 U J	5.3 U J	5.5 U J
Methyl Ethyl Ketone (MEK)	µg/kg	500000 ^A 1000000 ^B	31 U	27 U	28 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	500000 ^A n/v ^B	31 U	27 U	28 U
Methyl tert-butyl ether (MTBE)	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Methylcyclohexane	µg/kg	n/v	6.2 U	5.3 U	5.5 U
Methylene Chloride (Dichloromethane)	µg/kg	500000 ^A 1000000 ^B	7.5	9.0	8.2
Styrene	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Tetrachloroethane, 1,1,2,2-	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Tetrachloroethylene (PCE)	µg/kg	150000 ^A 300000 ^B	6.2 U	5.3 U	5.5 U
Toluene	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Trichlorobenzene, 1,2,4-	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Trichloroethane, 1,1,1-	µg/kg	500000 ^A 1000000 ^B	6.2 U	5.3 U	5.5 U
Trichloroethane, 1,1,2-	µg/kg	500000 ^A n/v ^B	6.2 U	5.3 U	5.5 U
Trichloroethylene (TCE)	µg/kg	200000 ^A 400000 ^B	6.2 U	5.3 U	5.5 U
Trichlorofluoromethane (Freon 11)	µg/kg	n/v	6.2 U	5.3 U	5.5 U
Vinyl chloride	µg/kg	13000 ^A 27000 ^B	6.2 U	5.3 U	5.5 U
Xylenes, Total	µg/kg	500000 ^A 1000000 ^B	12 U	11 U	11 U
Total VOCs	µg/kg	n/v	7.5	9.0	8.2

Notes:

- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
- ^A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
- ^B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- ^c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
- ^d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
- J Indicates estimated value.
- TALAM Test America Laboratories Inc., Amherst, New York
- in inches

Table 9
Summary of Analytical Results in Surface Soil
Remedial Investigation
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Sample Location			SS-3	SS-4	SS-5	SS-6		SS-7	SS-8	SS-9	SS-10	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16
Sample Date			26-Oct-10	26-Oct-10	27-Oct-10	25-Oct-10	25-Oct-10	25-Oct-10	25-Oct-10	26-Oct-10	25-Oct-10	25-Oct-10	25-Oct-10	28-Oct-10	28-Oct-10	28-Oct-10	3-Feb-11
Sample ID			BA-SS3-S	BA-SS-4-S	BA-SS5-S	BA-SS-6-S	BA-SS-6-S/D	BA-SS-7-S	BA-SS-8-S	BA-SS-9-S	BA-SS-10-S	BA-SS-11-S	BA-SS-12-S	BA-SS13-S	BA-SS14-S	BA-SS15-S	BA-SS16-S
Sample Depth			6 - 7 ft	0 - 2 in	1.4 - 1.4 ft	0 - 2 in	0 - 2 in	0 - 2 in	0 - 2 in	0 - 2 in	0 - 2 in	0 - 2 in	1 - 3 in	0 - 2 in	0 - 1 in	0 - 2 in	0 - 2 in
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	RTJ1956	480-1342-1
Laboratory Sample ID			RTJ2031-01	RTJ1956-11	RTJ2031-02	RTJ1956-01	RTJ1956-02	RTJ1956-04	RTJ1956-03	RTJ1956-12	RTJ1956-09	RTJ1956-07	RTJ1956-08	RTK0340-01	RTK0340-02	RTK0340-03	480-1409-5
Sample Type	Units	6NYCRR					Field Duplicate										
Semi-Volatile Organic Compounds (cont'd)																	
Hexachlorobenzene	µg/kg	6000 ^A 12000 ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Hexachlorobutadiene	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Hexachlorocyclopentadiene	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Hexachloroethane	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Indeno(1,2,3-cd)pyrene	µg/kg	5600 ^A 11000 ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Isophorone	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Methylnaphthalene, 2-	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Naphthalene	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Nitroaniline, 2-	µg/kg	50000 ^c n/v ^B	400 U	1800 U D	2000 U D	1800 U D	1800 U D	350 U	7000 U D	3600 U D	360 U	7300 U D	350 U	8100 U D	17000 U D	36000 U D	330 U
Nitroaniline, 3-	µg/kg	50000 ^c n/v ^B	400 U	1800 U D	2000 U D	1800 U D	1800 U D	350 U	7000 U D	3600 U D	360 U	7300 U D	350 U	8100 U D	17000 U D	36000 U D	330 U
Nitroaniline, 4-	µg/kg	50000 ^c n/v ^B	400 U	1800 U D	2000 U D	1800 U D	1800 U D	350 U	7000 U D	3600 U D	360 U	7300 U D	350 U	8100 U D	17000 U D	36000 U D	330 U
Nitrobenzene	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Nitrophenol, 2-	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Nitrophenol, 4-	µg/kg	50000 ^c n/v ^B	400 U	1800 U D	2000 U D	1800 U D	1800 U D	350 U	7000 U D	3600 U D	360 U	7300 U D	350 U	8100 U D	17000 U D	36000 U D	330 U
N-Nitrosodi-n-Propylamine	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
n-Nitrosodiphenylamine	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Pentachlorophenol	µg/kg	6700 ^A 55000 ^B	400 U	1800 U D	2000 U D	1800 U D	1800 U D	350 U	7000 U D	3600 U D	360 U	7300 U D	350 U	8100 U D	17000 U D	36000 U D	330 U
Phenanthrene	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Phenol	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Pyrene	µg/kg	50000 ^c n/v ^B	200 U	910 U D	150 JD	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	18 J	4200 U D	8900 U D	18000 U D	170 U
Trichlorophenol, 2,4,5-	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U
Trichlorophenol, 2,4,6-	µg/kg	50000 ^c n/v ^B	200 U	910 U D	1000 U D	950 U D	930 U D	180 U	3600 U D	1900 U D	190 U	3800 U D	180 U	4200 U D	8900 U D	18000 U D	170 U

Notes:

- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
- ^A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
- ^B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- ^c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
- ^d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
- ^g For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
- D Reported result taken from diluted sample analysis.
- J Indicates estimated value.
- TALAM Test America Laboratories Inc., Amherst, New York
- in inches
- ft feet

Table 9
Summary of Analytical Results in Surface Soil
Remedial Investigation
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Sample Location			SS-6	SS-8	SS-12	SS-13	SS-16
Sample Date			25-Oct-10	25-Oct-10	25-Oct-10	28-Oct-10	3-Feb-11
Sample ID			BA-SS-6-S	BA-SS-8-S	BA-SS-12-S	BA-SS13-S	BA-SS16-S
Sample Depth			0 - 2 in	0 - 2 in	1 - 3 in	0 - 2 in	0 - 2 in
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTJ1956	RTJ1956	RTJ1956	RTJ1956	480-1342-1
Laboratory Sample ID			RTJ1956-01	RTJ1956-03	RTJ1956-08	RTK0340-01	480-1409-5
Sample Type	Units	6NYCRR					
Metals							
Aluminum	mg/kg	10000 ^A n/V ^B	3720 J	2540 J	1110 J	-	9640
Antimony	mg/kg	10000 ^A n/V ^B	16.5 U	15.7 U	16.1 U	-	15.0 U
Arsenic	mg/kg	16 ^g AB	3.9	2.5	2.1	-	10.2
Barium	mg/kg	400 ^A 10000 ^B	24.7	17.3	5.52	-	133
Beryllium	mg/kg	590 ^A 2700 ^B	0.168 J	0.116 J	0.059 J	-	0.47
Cadmium	mg/kg	9.3 ^A 60 ^B	0.135 J	0.096 J	0.076 J	-	0.27
Calcium	mg/kg	10000 ^A n/V ^B	78900 BD ^A	40600 B ^A	208000 BD ^A	-	6740
Chromium (Total)	mg/kg	NS ^A AB	5.85	3.80	3.94	-	11.5
Cobalt	mg/kg	10000 ^A n/V ^B	3.46	2.15	1.01	-	8.4
Copper	mg/kg	270 ^A 10000 ^B	12.0 B	7.5 B	3.9 B	-	19.3
Iron	mg/kg	10000 ^A n/V ^B	9190 B	5950 B	2760 B	-	21800 ^A
Lead	mg/kg	1000 ^A 3900 ^B	8.4 B	4.5 B	2.5 U	-	49.0
Magnesium	mg/kg	10000 ^A n/V ^B	25500 B ^A	6710 B	6830 B	-	3420
Manganese	mg/kg	10000 ^{AB}	541 B	288 B	128 B	-	1020
Mercury	mg/kg	2.8 ^A 5.7 ^B	0.0228 U	0.0219 U	0.0218 U	-	0.12
Nickel	mg/kg	310 ^A 10000 ^B	9.23	5.80	5.36	-	19.1
Potassium	mg/kg	10000 ^A n/V ^B	569	468	452	-	1570
Selenium	mg/kg	1500 ^A 6800 ^B	4.4 U	4.2 U	0.7 J	-	4.0 U
Silver	mg/kg	1500 ^A 6800 ^B	0.549 U	0.523 U	0.536 U	-	0.50 U
Sodium	mg/kg	10000 ^A n/V ^B	86.3 J	77.2 J	116 J	-	140 U
Thallium	mg/kg	10000 ^A n/V ^B	6.6 U	6.3 U	6.4 U	-	6.0 U
Vanadium	mg/kg	10000 ^A n/V ^B	7.25	5.11	3.64	-	13.3
Zinc	mg/kg	10000 ^{AB}	38.9 B	30.3 B	9.5 B	-	85.1
Pesticides							
Aldrin	µg/kg	680 ^A 1400 ^B	91 U DJ	87 U DJ	1.8 U J	-	2.7 U
BHC, alpha-	µg/kg	3400 ^A 6800 ^B	91 U DJ	87 U DJ	1.8 U J	-	2.0 U
BHC, beta-	µg/kg	3000 ^A 14000 ^B	91 U DJ	87 U DJ	1.8 U J	-	1.7 U
BHC, delta-	µg/kg	500000 ^A 1000000 ^B	91 U DJ	87 U DJ	1.0 J	-	6.5
Camphechlor (Toxaphene)	µg/kg	500000 ^A n/V ^B	910 U DJ	870 U DJ	18 U J	-	65 U
Chlordane (Total)	µg/kg	500000 ^A n/V ^B	910 U DJ	870 U DJ	18 JN	-	18 JN
Chlordane, alpha-	µg/kg	24000 ^A 47000 ^B	91 U DJ	87 U DJ	1.8 U J	-	5.5 U
Chlordane, gamma-	µg/kg	500000 ^A n/V ^B	91 U DJ	87 U DJ	1.7 JN	-	3.5 U
DDD (p,p'-DDD)	µg/kg	92000 ^A 180000 ^B	91 U DJ	87 U DJ	1.8 U J	-	2.2 U
DDE (p,p'-DDE)	µg/kg	62000 ^A 120000 ^B	91 U DJ	87 U DJ	1.8 U J	-	1.7 U
DDT (p,p'-DDT)	µg/kg	47000 ^A 94000 ^B	91 U DJ	87 U DJ	1.8 U J	-	1.7 U
Dieldrin	µg/kg	1400 ^A 2800 ^B	91 U DJ	87 U DJ	1.0 JN	-	2.7 U
Endosulfan I	µg/kg	200000 ^A 920000 ^B	91 U DJ	87 U DJ	1.8 U J	-	1.7 U
Endosulfan II	µg/kg	200000 ^A 920000 ^B	91 U DJ	87 U DJ	1.3 JN	-	2.0 U
Endosulfan Sulfate	µg/kg	200000 ^A 920000 ^B	91 U DJ	87 U DJ	1.8 U J	-	4.9
Endrin	µg/kg	89000 ^A 410000 ^B	91 U DJ	87 U DJ	1.8 U J	-	1.7 U
Endrin Aldehyde	µg/kg	500000 ^A n/V ^B	91 U DJ	87 U DJ	1.8 U J	-	2.9 U
Endrin Ketone	µg/kg	500000 ^A n/V ^B	91 U DJ	87 U DJ	1.8 U J	-	5.5
Heptachlor	µg/kg	15000 ^A 29000 ^B	91 U DJ	87 U DJ	1.8 U J	-	1.7 U
Heptachlor Epoxide	µg/kg	500000 ^A n/V ^B	91 U DJ	87 U DJ	1.8 U J	-	2.9 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	9200 ^A 23000 ^B	91 U DJ	87 U DJ	0.99 J	-	8.0 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	500000 ^A n/V ^B	91 U DJ	87 U DJ	1.8 U J	-	1.7 U

See next page for notes.

Table 9
Summary of Analytical Results in Surface Soil
Remedial Investigation
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Sample Location			SS-6	SS-8	SS-12	SS-13	SS-16
Sample Date			25-Oct-10	25-Oct-10	25-Oct-10	28-Oct-10	3-Feb-11
Sample ID			BA-SS-6-S	BA-SS-8-S	BA-SS-12-S	BA-SS13-S	BA-SS16-S
Sample Depth			0 - 2 in	0 - 2 in	1 - 3 in	0 - 2 in	0 - 2 in
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTJ1956	RTJ1956	RTJ1956	RTJ1956	480-1342-1
Laboratory Sample ID			RTJ1956-01	RTJ1956-03	RTJ1956-08	RTK0340-01	480-1409-5
Sample Type	Units	6NYCRR					

Polychlorinated Biphenyls							
Aroclor 1016	µg/kg	1000 ^A 25000 ^B	18 U	17 U	18 U	100 U D	17 U
Aroclor 1221	µg/kg	1000 ^A 25000 ^B	18 U	17 U	18 U	100 U D	17 U
Aroclor 1232	µg/kg	1000 ^A 25000 ^B	18 U	17 U	18 U	100 U D	17 U
Aroclor 1242	µg/kg	1000 ^A 25000 ^B	18 U	17 U	18 U	100 U D	17 U
Aroclor 1248	µg/kg	1000 ^A 25000 ^B	18 U	17 U	18 U	100 U D	17 U
Aroclor 1254	µg/kg	1000 ^A 25000 ^B	18 U	17 U	18 U	100 U D	17 U
Aroclor 1260	µg/kg	1000 ^A 25000 ^B	18 U J	17 U J	18 U J	100 U D	17 U
Aroclor 1262	µg/kg	n/v	18 U	17 U	18 U	100 U D	17 U
Aroclor 1268	µg/kg	n/v	18 U	17 U	18 U	100 U D	17 U

Notes:

- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
- ^A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
- ^B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- NS,q No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
For commercial use, these are 1500 and 400 mg/kg respectively.
- ^d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
- ^e The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
- ^{AB}_j This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
- ^{AB}_o The criterion is applicable to total PCBs, and the individual aroclors should be added for comparison.
- B Analyte was detected in the associated Method Blank.
- D Reported result taken from diluted sample analysis.
- J Indicates estimated value.
- JN Presumptively present at an approximated quantity.
- TALAM Test America Laboratories Inc., Amherst, New York
- in inches

Table 10
Summary of Analytical Results in Subsurface Soils from Test Pit Locations
Remedial Investigation
Former Allegany Bitumens Asphalt Plant
Amity, New York

Sample Location	Units	6NYCRR	TP-1		TP-2	TP-3	TP-4	TP-5	TP-7		TP-8			TP-9	TP-10	TP-11		TP-12	TP-13	
			26-Oct-10	26-Oct-10	26-Oct-10	26-Oct-10	26-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	28-Oct-10	28-Oct-10	28-Oct-10	29-Oct-10
Sample Date			26-Oct-10	26-Oct-10	26-Oct-10	26-Oct-10	26-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	27-Oct-10	28-Oct-10	28-Oct-10	28-Oct-10	29-Oct-10	
Sample ID			BA-TP-1-S	BA-TP-1-S2	BA-TP2-S	BA-TP3-S	BA-TP4-S	BA-TP5-S	BA-TP7-S	BA-TP7-S2	BA-TP8-S	BA-TP8-S/D	BA-TP8-S2	BA-TP8-S3	BA-TP9-S	BA-TP10-S	BA-TP11-S	BA-TP11-S2	BA-TP12-S	BA-TP13-S
Sample Depth			1.4 - 1.8 ft	2.5 - 3 ft	9.5 - 10 ft	10 - 18.5 ft	9 - 9.5 ft	3.5 - 4 ft	0.5 - 2.5 ft	2.5 - 3 ft	2 - 4 ft	2 - 4 ft	4.5 - 5 ft	5 - 5.5 ft	0 - 3 ft	6 - 6.5 ft	4 - 5 ft	5 - 5.5 ft	4 - 5 ft	2 - 2.5 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTJ1956	RTJ1956	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029
Laboratory Sample ID			RTJ1956-14	RTJ1956-15	RTJ2029-01	RTJ2029-02	RTJ2029-03	RTJ2029-06	RTJ2137-05	RTJ2137-06	RTJ2137-01	RTJ2137-02	RTJ2137-03	RTJ2137-04	RTJ2137-07	RTJ2137-08	RTK0343-01	RTK0343-02	RTK0343-03	RTK0343-04
Sample Type												Field Duplicate								
Semi-Volatile Organic Compounds																				
Fluorene	µg/kg	500000 ^A 1000000 ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	2700 JD	8600 U D	920 U D	3600 U D	210 U
Hexachlorobenzene	µg/kg	6000 ^A 12000 ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Hexachlorobutadiene	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Hexachlorocyclopentadiene	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Hexachloroethane	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Indeno(1,2,3-cd)pyrene	µg/kg	5600 ^A 11000 ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	1400 JD	8600 U D	920 U D	3600 U D	210 U
Isophorone	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Methylnaphthalene, 2-	µg/kg	500000 ^A n/V ^B	1500 JD	190 U	210 U	200 U	190 U	210 U	180 U	7700 JD	44000 U D	40000 U D	9400 JD	220 JD	9000 U D	2100 JD	8600 U D	920 U D	3600 U D	210 U
Naphthalene	µg/kg	500000 ^A 1000000 ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	990 JD	8600 U D	920 U D	3600 U D	210 U
Nitroaniline, 2-	µg/kg	500000 ^A n/V ^B	17000 U D	370 U	410 U	390 U	380 U	410 U	350 U	35000 U D	86000 U D	78000 U D	78000 U D	3500 U D	17000 U D	6900 U D	17000 U D	1800 U D	7100 U D	410 U
Nitroaniline, 3-	µg/kg	500000 ^A n/V ^B	17000 U D	370 U	410 U	390 U	380 U	410 U	350 U	35000 U D	86000 U D	78000 U D	78000 U D	3500 U D	17000 U D	6900 U D	17000 U D	1800 U D	7100 U D	410 U
Nitroaniline, 4-	µg/kg	500000 ^A n/V ^B	17000 U D	370 U	410 U	390 U	380 U	410 U	350 U	35000 U D	86000 U D	78000 U D	78000 U D	3500 U D	17000 U D	6900 U D	17000 U D	1800 U D	7100 U D	410 U
Nitrobenzene	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Nitrophenol, 2-	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Nitrophenol, 4-	µg/kg	500000 ^A n/V ^B	17000 U D	370 U	410 U	390 U	380 U	410 U	350 U	35000 U D	86000 U D	78000 U D	78000 U D	3500 U D	17000 U D	6900 U D	17000 U D	1800 U D	7100 U D	410 U
N-Nitrosodi-n-Propylamine	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
n-Nitrosodiphenylamine	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Pentachlorophenol	µg/kg	6700 ^A 55000 ^B	17000 U D	370 U	410 U	390 U	380 U	410 U	350 U	35000 U D	86000 U D	78000 U D	78000 U D	3500 U D	17000 U D	6900 U D	17000 U D	1800 U D	7100 U D	410 U
Phenanthrene	µg/kg	500000 ^A 1000000 ^B	9000 U D	370 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	15000 D	8600 U D	920 U D	3600 U D	210 U
Phenol	µg/kg	500000 ^A 1000000 ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Pyrene	µg/kg	500000 ^A 1000000 ^B	9000 U D	55 J	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	12000 D	8600 U D	920 U D	3600 U D	210 U
Trichlorophenol, 2,4,5-	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U
Trichlorophenol, 2,4,6-	µg/kg	500000 ^A n/V ^B	9000 U D	190 U	210 U	200 U	190 U	210 U	180 U	18000 U D	44000 U D	40000 U D	40000 U D	1800 U D	9000 U D	3500 U D	8600 U D	920 U D	3600 U D	210 U

See last page for notes.

Table 10
Summary of Analytical Results in Subsurface Soils from Test Pit Locations
Remedial Investigation
Former Allegany Bitumens Asphalt Plant
Amity, New York

Sample Location	Sample Date	Sample ID	Sample Depth	Sampling Company	Laboratory	Laboratory Work Order	Laboratory Sample ID	Sample Type	TP-14							
									29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	
									Units	6NYCRR	RTK0343-07	RTK0343-08	RTK0343-09	RTK0343-10	RTK0343-11	RTK0343-12
General Chemistry																
Total Solids	%	n/v	78	81	81	87	91	93								
Semi-Volatile Organic Compounds																
Acenaphthene	µg/kg	500000 ^c 1000000 ^d	1100 U D	1100 U D	210 U	25 J	1800 U D	900 U D								
Acenaphthylene	µg/kg	500000 ^c 1000000 ^d	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Acetophenone	µg/kg	n/v	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Anthracene	µg/kg	500000 ^c 1000000 ^d	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Atrazine	µg/kg	n/v	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Benzaldehyde	µg/kg	n/v	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Benzo(a)anthracene	µg/kg	5600 ^a 11000 ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Benzo(a)pyrene	µg/kg	1000 ^g 1100 ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Benzo(b)fluoranthene	µg/kg	5600 ^a 11000 ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Benzo(g,h,i)perylene	µg/kg	500000 ^c 1000000 ^d	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Benzo(k)fluoranthene	µg/kg	56000 ^a 110000 ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Biphenyl, 1,1'- (Biphenyl)	µg/kg	n/v	150 JD	1100 U D	210 U	190 U	1800 U D	900 U D								
Bis(2-Chloroethoxy)methane	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Bis(2-Chloroethyl)ether	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	500000 ^c n/v ^b	1100 U	1100 U	210 U	190 U	1800 U	900 U								
Bromophenyl Phenyl Ether, 4-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Butyl Benzyl Phthalate	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Caprolactam	µg/kg	n/v	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Carbazole	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Chloro-3-methyl phenol, 4-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Chloroaniline, 4	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Chloronaphthalene, 2-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Chlorophenyl Phenyl Ether, 4-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Chrysene	µg/kg	56000 ^a 110000 ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Cresol, o- (Methylphenol, 2-)	µg/kg	500000 ^c 1000000 ^d	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Cresol, p- (Methylphenol, 4-)	µg/kg	500000 ^c 1000000 ^d	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D								
Dibenzo(a,h)anthracene	µg/kg	560 ^a 1100 ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Dibenzofuran	µg/kg	350000 ^a 1000000 ^d	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Dichlorobenzidine, 3,3'-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Dichlorophenol, 2,4-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Diethyl Phthalate	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Dimethyl Phthalate	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Dimethylphenol, 2,4-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Di-n-Butyl Phthalate	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Dinitro-o-cresol, 4,6-	µg/kg	500000 ^c n/v ^b	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D								
Dinitrophenol, 2,4-	µg/kg	500000 ^c n/v ^b	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D								
Dinitrotoluene, 2,4-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Dinitrotoluene, 2,6-	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Di-n-Octyl phthalate	µg/kg	500000 ^c n/v ^b	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								
Fluoranthene	µg/kg	500000 ^c 1000000 ^d	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D								

See last page for notes.

Table 10
Summary of Analytical Results in Subsurface Soils from Test Pit Locations
Remedial Investigation
Former Allegany Bitumens Asphalt Plant
Amity, New York

Sample Location	Sample Date	Sample ID	Sample Depth	Sampling Company	Laboratory	Laboratory Work Order	Laboratory Sample ID	Sample Type	TP-14						
									29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10
									BA-TP14-S	BA-TP14-S/D	BA-TP14-S2	BA-TP15-S	BA-TP17-S	BA-TP18-S	
									3 ft	3 ft	6 ft	4 - 4.5 ft	3.5 - 4 ft	9.5 - 10 ft	
									STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
									TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	
									RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	
									RTK0343-07	RTK0343-08	RTK0343-09	RTK0343-10	RTK0343-11	RTK0343-12	
									Units	6NYCRR	Field Duplicate				
Semi-Volatile Organic Compounds															
Fluorene	µg/kg	500000 ^A 1000000 ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Hexachlorobenzene	µg/kg	6000 ^A 12000 ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Hexachlorobutadiene	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Hexachlorocyclopentadiene	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Hexachloroethane	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Indeno(1,2,3-cd)pyrene	µg/kg	5600 ^A 11000 ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Isophorone	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Methylnaphthalene, 2-	µg/kg	500000 ^A n/v ^B	2600 D	950 JD	210 U	33 J	1800 U D	900 U D							
Naphthalene	µg/kg	500000 ^A 1000000 ^B	2000 D	750 JD	210 U	240	1800 U D	900 U D							
Nitroaniline, 2-	µg/kg	500000 ^A n/v ^B	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D							
Nitroaniline, 3-	µg/kg	500000 ^A n/v ^B	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D							
Nitroaniline, 4-	µg/kg	500000 ^A n/v ^B	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D							
Nitrobenzene	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Nitrophenol, 2-	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Nitrophenol, 4-	µg/kg	500000 ^A n/v ^B	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D							
N-Nitrosodi-n-Propylamine	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
n-Nitrosodiphenylamine	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Pentachlorophenol	µg/kg	6700 ^A 55000 ^B	2100 U D	2000 U D	400 U	370 U	3600 U D	1700 U D							
Phenanthrene	µg/kg	500000 ^A 1000000 ^B	1100 U D	1100 U D	210 U	21 J	1800 U D	900 U D							
Phenol	µg/kg	500000 ^A 1000000 ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Pyrene	µg/kg	500000 ^A 1000000 ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Trichlorophenol, 2,4,5-	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							
Trichlorophenol, 2,4,6-	µg/kg	500000 ^A n/v ^B	1100 U D	1100 U D	210 U	190 U	1800 U D	900 U D							

Notes:

- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
- ^A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
- ^B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- ^c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
- ^d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
- ^g For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
- D Reported result taken from diluted sample analysis.
- J Indicates estimated value.
- TALAM Test America Laboratories Inc., Amherst, New York
- ft feet

Table 10
Summary of Analytical Results in Subsurface Soils from Test Pit Locations
Remedial Investigation
Former Allegany Bitumens Asphalt Plant
Amity, New York

Sample Location			TP-4	TP-8		TP-13	TP-17	TP-18
Sample Date			26-Oct-10	27-Oct-10	27-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10
Sample ID			BA-TP4-S	BA-TP8-S	BA-TP8-S/D	BA-TP13-S	BA-TP17-S	BA-TP18-S
Sample Depth			9 - 9.5 ft	2 - 4 ft	2 - 4 ft	2 - 2.5 ft	3.5 - 4 ft	9.5 - 10 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029
Laboratory Sample ID			RTJ2029-03	RTJ2137-01	RTJ2137-02	RTK0343-04	RTK0343-11	RTK0343-12
Sample Type	Units	6NYCRR			Field Duplicate			
Metals								
Aluminum	mg/kg	10000 ^A n/V ^B	7700 J	4290 J	3030 J	13000 J ^A	5550 J	6230 J
Antimony	mg/kg	10000 ^A n/V ^B	17.1 U J	17.4 U J	18.2 U J	18.9 U J	16.2 U J	15.9 U J
Arsenic	mg/kg	16 ^{AB}	5.6 J	5.8 B	4.0 U	7.6	5.5	4.5
Barium	mg/kg	400 ^A 10000 ^B	39.0 J	46.7	61.2	80.5 J	35.0	29.0
Beryllium	mg/kg	590 ^A 2700 ^B	0.357	0.203 J	0.129 J	0.633 J	0.219	0.265
Cadmium	mg/kg	9.3 ^A 60 ^B	0.204 J	0.390	0.330	0.234 J	0.832	0.169 J
Calcium	mg/kg	10000 ^A n/V ^B	31000 B ^A	120000 BD ^A	69600 BD ^A	31200 B ^A	85300 BD ^A	53100 B ^A
Chromium (Total)	mg/kg	NS,q ^{AB}	10.2	8.77	28.1	15.8 J	7.08	7.56
Cobalt	mg/kg	10000 ^A n/V ^B	8.42	4.69	3.34	11.5	5.16	4.63
Copper	mg/kg	270 ^A 10000 ^B	17.1	21.5	18.9	21.4	19.6	14.4
Iron	mg/kg	10000 ^A n/V ^B	16900 ^A	13400 ^A	12000 ^A	25100 ^A	21800 ^A	13100 ^A
Lead	mg/kg	1000 ^A 3900 ^B	10.8	47.5	149	13.0	14.0	6.7
Magnesium	mg/kg	10000 ^A n/V ^B	12400 ^A	7560	6590	13800 ^A	11900 ^A	13900 ^A
Manganese	mg/kg	10000 ^{AB}	486 J	421 B	348 B	563 B	787 B	375 B
Mercury	mg/kg	2.8 ^A 5.7 ^B	0.0227 U	0.0227 U	0.0112 J	0.0240 U	1.22 D	0.0212 U
Nickel	mg/kg	310 ^A 10000 ^B	19.0	14.1	9.48	26.5	13.1	13.4
Potassium	mg/kg	10000 ^A n/V ^B	1080 J	608	535	2390 J	795	910
Selenium	mg/kg	1500 ^A 6800 ^B	4.6 U	4.6 U	4.8 U	5.1 U	4.3 U	4.3 U
Silver	mg/kg	1500 ^A 6800 ^B	0.570 U	0.580 U	0.606 U	0.631 U	0.539 U	0.532 U
Sodium	mg/kg	10000 ^A n/V ^B	88.3 J	102 J	78.8 J	130 J	97.5 J B	114 J B
Thallium	mg/kg	10000 ^A n/V ^B	6.8 U	7.0 U	7.3 U	7.6 U	6.5 U	6.4 U
Vanadium	mg/kg	10000 ^A n/V ^B	11.5	8.40	6.10	19.1 J	9.97	9.84
Zinc	mg/kg	10000 ^{AB}	44.7 B	99.7 B	80.9 B	62.4 B	62.3 B	46.1 B
Pesticides								
Aldrin	µg/kg	680 ^A 1400 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
BHC, alpha-	µg/kg	3400 ^A 6800 ^B	1.9 U CJ	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
BHC, beta-	µg/kg	3000 ^A 14000 ^B	1.9 U CJ	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
BHC, delta-	µg/kg	500000 ^A 1000000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Campechlor (Toxaphene)	µg/kg	500000 ^A n/V ^B	19 U J	20000 U DJ	19000 U DJ	21 U J	1800 U DJ	890 U DJ
Chlordane, alpha-	µg/kg	24000 ^A 47000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Chlordane, gamma-	µg/kg	500000 ^A n/V ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
DDD (p,p'-DDD)	µg/kg	92000 ^A 180000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
DDE (p,p'-DDE)	µg/kg	62000 ^A 120000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
DDT (p,p'-DDT)	µg/kg	47000 ^A 94000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Dieldrin	µg/kg	1400 ^A 2800 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Endosulfan I	µg/kg	200000 ^A 920000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Endosulfan II	µg/kg	200000 ^A 920000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Endosulfan Sulfate	µg/kg	200000 ^A 920000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Endrin	µg/kg	89000 ^A 410000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Endrin Aldehyde	µg/kg	500000 ^A n/V ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Endrin Ketone	µg/kg	500000 ^A n/V ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Heptachlor	µg/kg	15000 ^A 29000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Heptachlor Epoxide	µg/kg	500000 ^A n/V ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	9200 ^A 23000 ^B	1.9 U J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ
Methoxychlor (4,4'-Methoxychlor)	µg/kg	500000 ^A n/V ^B	0.57 J	2000 U DJ	1900 U DJ	2.1 U J	180 U DJ	89 U DJ

Table 10
Summary of Analytical Results in Subsurface Soils from Test Pit Locations
Remedial Investigation
Former Allegany Bitumens Asphalt Plant
Amity, New York

Sample Location			TP-4	TP-8	TP-13	TP-17	TP-18	
Sample Date			26-Oct-10	27-Oct-10	27-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10
Sample ID			BA-TP4-S	BA-TP8-S	BA-TP8-S/D	BA-TP13-S	BA-TP17-S	BA-TP18-S
Sample Depth			9 - 9.5 ft	2 - 4 ft	2 - 4 ft	2 - 2.5 ft	3.5 - 4 ft	9.5 - 10 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029	RTJ2029
Laboratory Sample ID			RTJ2029-03	RTJ2137-01	RTJ2137-02	RTK0343-04	RTK0343-11	RTK0343-12
Sample Type	Units	6NYCRR			Field Duplicate			
Polychlorinated Biphenyls								
Aroclor 1016	µg/kg	1000 ^A 25000 ^B	19 U	200 U D	190 U D	21 U	90 U D	18 U
Aroclor 1221	µg/kg	1000 ^A 25000 ^B	19 U	200 U D	190 U D	21 U	90 U D	18 U
Aroclor 1232	µg/kg	1000 ^A 25000 ^B	19 U	200 U D	190 U D	21 U	90 U D	18 U
Aroclor 1242	µg/kg	1000 ^A 25000 ^B	19 U	200 U D	190 U D	21 U	90 U D	18 U
Aroclor 1248	µg/kg	1000 ^A 25000 ^B	19 U	200 U D	190 U D	21 U	90 U D	18 U
Aroclor 1254	µg/kg	1000 ^A 25000 ^B	19 U	200 U D	190 U D	21 U	19 JDN	18 U
Aroclor 1260	µg/kg	1000 ^A 25000 ^B	19 U	200 U D	190 U D	21 U	90 U D	18 U
Aroclor 1262	µg/kg	n/v	19 U	200 U D	190 U D	21 U	90 U D	18 U
Aroclor 1268	µg/kg	n/v	19 U	200 U D	190 U D	21 U	90 U D	18 U

Notes:

- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
- A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
- B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- NS,q No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium. For commercial use, these are 1500 and 400 mg/kg respectively.
- c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
- ^{AB}e The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
- ^{AB}g For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
- ^{AB}k This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
- ^{AB}o The criterion is applicable to total PCBs, and the individual aroclors should be added for comparison.
- B Analyte was detected in the associated Method Blank.
- C Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected above the laboratory PQL, data not impacted.
- D Reported result taken from diluted sample analysis.
- J Indicates estimated value.
- JN Presumptively present at an approximated quantity.
- TALAM Test America Laboratories Inc., Amherst, New York
- ft feet

Table 11
Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
Phase II (2009) and Remedial Investigation (2010-2011)
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Sample Location			BS-1	BS-2	BS-3	BS-4	B/MW-5	B/MW-6	B/MW-7	B/MW-8	B/MW-9	B/MW-10	B/MW-11	B/MW-14	B-15	B-16	B-17	B-18	B-19	B-20	B/MW-22		
Sample Date			10-Dec-09	10-Dec-09	11-Dec-09	11-Dec-09	2-Dec-10	1-Dec-10	2-Dec-10	1-Dec-10	30-Nov-10	30-Nov-10	30-Nov-10	30-Nov-10	2-Dec-10	3-Dec-10	3-Dec-10	3-Dec-10	2-Dec-10	3-Dec-10	3-Dec-10	3-Dec-10	
Sample ID			BS-S-1	BS-S-2	BS-S-3	BS-S-4	BA-B5-S	BA-B6-S	BA-B7-S	BA-B8-S	BA-B9-S	BA-B10-S	BA-B11-S	BA-B14-S	BA-B15-S	BA-B16-S	BA-B16-S2	BA-B17-S	BA-B18-S	BA-B19-S	BA-B20-S	BA-B22-S	
Sample Depth			8 - 9 ft	7 - 8 ft	8 - 9 ft	8 - 10 ft	8 - 8.7 ft	2 - 2.8 ft	4.7 - 5.1 ft	11.5 - 12 ft	8 - 10 ft	8 - 9.6 ft	8 - 9 ft	8 - 10 ft	8 - 10.3 ft	10.8 - 11.2 ft	17.5 - 18 ft	4.6 - 6.6 ft	9.2 - 9.7 ft	4 - 4.9 ft	4 - 4.8 ft	15.5 - 16 ft	
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
Laboratory			SPECTRUM	SPECTRUM	SPECTRUM	SPECTRUM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	
Laboratory Work Order			SB05469	SB05469	SB05538	SB05538	RTL0493	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTL0493-04	RTL0522-04	RTL0522-05	RTL0522-03	RTL0493-03	RTL0522-01	RTL0522-02	RTL0493-06
Laboratory Sample ID			SB05469-01	SB05469-02	SB05538-01	SB05538-03	RTL0493-05	RTL0315-03	RTL0493-02	RTL0493-01	RTK1728-04	RTL0315-01	RTL0315-02	RTL0493-03	RTL0493-04	RTL0522-04	RTL0522-05	RTL0522-03	RTL0493-03	RTL0522-01	RTL0522-02	RTL0493-06	
Sample Type		Units	6NYCRR																				
Volatile Organic Compounds (cont'd)																							
Ethyl Tert Butyl Ether	µg/kg	n/v	6.1 U	348 U	5.8 U	69.7 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylbenzene	µg/kg	390000 ^A 780000 ^B 1000 ^C	5.7 U	323 U	5.4 U	64.8 U	5.8 U	6.4 U J	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U J	
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	n/v	3.9 U	221 U	3.7 U	44.4 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Hexachlorobutadiene	µg/kg	500000 ^A n/v ^B 1000000 ^C	4.7 U	267 U	4.5 U	53.5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hexanone, 2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	21.1 U	1200 U	20.2 U	241 U	29 U	32 U	30 U	33 U	32 U	30 U	30 U	32 U	32 U	30 U	30 U	30 U	31 U	34 U	32 U	30 U	
Isopropylbenzene	µg/kg	500000 ^A n/v ^B 1000000 ^C	4.0 U	225 U	3.8 U	45.1 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Methyl Acetate	µg/kg	n/v	-	-	-	-	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Methyl Ethyl Ketone (MEK)	µg/kg	500000 ^A 1000000 ^B 120 ^C	23.4 U	1330 U	22.4 U	267 U	29 U	32 U	30 U	33 U	32 U	30 U	30 U	32 U	32 U	30 U	30 U	30 U	31 U	34 U	32 U	30 U	
Methyl Isobutyl Ketone (MIBK)	µg/kg	500000 ^A n/v ^B 1000000 ^C	14.1 U	805 U	13.5 U	161 U	29 U	32 U	30 U	33 U	32 U	30 U	30 U	32 U	32 U	30 U	30 U	30 U	31 U	34 U	32 U	30 U	
Methyl tert-butyl ether (MTBE)	µg/kg	500000 ^A 1000000 ^B 930 ^C	4.9 U	281 U	4.7 U	56.3 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Methylcyclohexane	µg/kg	n/v	-	-	-	-	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Methylene Chloride (Dichloromethane)	µg/kg	50000 ^A 1000000 ^B	30.6 U	1740 U	29.3 U	349 U	13	13	8.2	12	11	9.0	11	11	8.5	34	33	37	8.9	45	38	6.2	
Naphthalene	µg/kg	500000 ^A 1000000 ^B 12000 ^C	5.1 U	288 U	4.8 U	60.6 J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phenylbutane, 2- (sec-Butylbenzene)	µg/kg	500000 ^A 1000000 ^B 11000 ^C	4.3 U	243 U	4.1 U	48.6 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Propylbenzene, n-	µg/kg	500000 ^A 1000000 ^B 3900 ^C	4.5 U	257 U	4.3 U	51.4 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Styrene	µg/kg	500000 ^A n/v ^B 1000000 ^C	3.1 U	176 U	3.0 U	35.2 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Tert Amyl Methyl Ether	µg/kg	n/v	5.6 U	320 U	5.4 U	64.1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tert-Butyl Alcohol	µg/kg	n/v	56.0 U	3190 U	53.6 U	639 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethane, 1,1,1,2-	µg/kg	n/v	5.6 U	320 U	5.4 U	64.1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethane, 1,1,2,2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	4.4 U	253 U	4.3 U	50.7 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Tetrachloroethylene (PCE)	µg/kg	150000 ^A 300000 ^B 1300 ^C	5.4 U	306 U	5.1 U	61.3 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	1.5 J	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U J	
Tetrahydrofuran	µg/kg	n/v	10.7 U	608 U	10.2 U	122 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Toluene	µg/kg	500000 ^A 1000000 ^B 700 ^C	5.6 U	316 U	5.3 U	63.4 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U J	
Trichlorobenzene, 1,2,3-	µg/kg	n/v	4.8 U	274 U	4.6 U	54.9 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichlorobenzene, 1,2,4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	5.7 U	323 U	5.4 U	64.8 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Trichlorobenzene, 1,3,5-	µg/kg	n/v	4.7 U	267 U	4.5 U	53.5 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichloroethane, 1,1,1-	µg/kg	500000 ^A 1000000 ^B 680 ^C	5.7 U	327 U	5.5 U	65.5 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	130	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Trichloroethane, 1,1,2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	3.9 U	221 U	3.7 U	44.4 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Trichloroethylene (TCE)	µg/kg	20000 ^A 400000 ^B 470 ^C	16.8	37500 ^C	5.8 U	16800 ^C	5.8 U	6.4 U J	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	25000 ^D ^C	46	6.0 U	6.0 U	2.1 J	6.8 U	6.5 U	6.0 U J
Trichlorofluoromethane (Freon 11)	µg/kg	n/v	4.9 U	281 U	4.7 U	56.3 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Trichloropropane, 1,2,3-	µg/kg	500000 ^A n/v ^B 1000000 ^C	5.2 U	299 U	5.0 U	59.9 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichlorotrifluoroethane (Freon 113)	µg/kg	500000 ^A n/v ^B 1000000 ^C	3.7 U	211 U	3.5 U	42.3 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	6.1 U	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Trimethylbenzene, 1,2,4-	µg/kg	190000 ^A 380000 ^B 3600 ^C	4.8 U	274 U	4.6 U	54.9 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trimethylbenzene, 1,3,5-	µg/kg	190000 ^A 380000 ^B 8400 ^C	5.9 U	334 U	5.6 U	66.9 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vinyl chloride	µg/kg	13000 ^A 270000 ^B 20 ^C	4.9 U	281 U	4.7 U	56.3 U	5.8 U	6.4 U	6.0 U	6.5 U	6.4 U	5.9 U	6.0 U	6.4 U	6.4 U	1.4 J	6.0 U	6.0 U	6.1 U	6.8 U	6.5 U	6.0 U	
Xylene, m & p-	µg/kg	500000 ^A 1000000 ^B 1600 ^C	9.9 U	562 U	9.5 U	113 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Xylene, o-	µg/kg	500000 ^A 1000000 ^B 1600 ^C	3.9 U	221 U	3.7 U	44.4 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Xylenes, Total	µg/kg	500000 ^A 1000000 ^B 1600 ^C	-	-	-	-	12 U	13 U J	12 U	13 U	13 U	1.5 J	12 U	13 U	13 U	12 U	12 U	12 U	12 U	14 U	13 U	12 U J	
Total VOC	µg/kg	500000 ^A n/v ^B 1000000 ^C	16.8	37500	ND	17054.6	13	13	8.2	12	11	10.5	11	11	8.5	26040.1	80.5	38.5	12.7	45	38	6.2	

See last page for notes.

Table 11
 Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
 Phase II (2009) and Remedial Investigation (2010-2011)
 Former Allegany Bitumens
 Belmont Asphalt Plant
 Amity, New York

Sample Location	Units	6NYCRR	B/MW-23		B-24			B/MW-25	B/MW-26	B/MW-27			B/MW-28D		B-29	B-30	B-31		B-32	
			6-Dec-10	6-Dec-10	6-Dec-10	6-Dec-10	6-Dec-10	6-Dec-10	6-Dec-10	3-Feb-11	3-Feb-11	3-Feb-11	1-Feb-11	1-Feb-11	4-Feb-11	4-Feb-11	4-Feb-11	4-Feb-11	4-Feb-11	7-Feb-11
Sample Date	BA-B23-S	BA-B23-S2	BA-B24-S	BA-B24-S2	BA-B24-S3	BA-B25-S	BA-B26-S	BA-B27-S	BA-B27-S2	BA-B27-S2/D	BA-B28D-S	BA-B28D-S2	BA-B29-S	BA-B30-S	BA-B31-S	BA-B31-S2	BA-B32-S			
Sample ID	8 - 8.5 ft	10 - 10.6 ft	0.2 - 0.6 ft	6 - 6.6 ft	10 - 10.7 ft	6 - 7 ft	8 - 8.4 ft	0.4 - 1.4 ft	6.5 - 7.3 ft	6.5 - 7.3 ft	5.3 - 5.8 ft	39 - 40 ft	4.5 - 6 ft	4.6 - 5.4 ft	0.3 - 0.9 ft	8 - 9 ft	6 - 8.4 ft			
Sample Depth	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC			
Sampling Company	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM			
Laboratory	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1418-1	480-1418-2	480-1418-3	480-1418-4	480-1441-1
Laboratory Work Order	RTL0630-05	RTL0630-06	RTL0630-02	RTL0630-03	RTL0630-04	RTL0630-01	480-1409-4	480-1409-1	480-1409-2	480-1409-3	480-1342-1	480-1342-2	480-1418-1	480-1418-2	480-1418-3	480-1418-4	480-1418-1			
Laboratory Sample ID										Field Duplicate										
Sample Type																				
General Chemistry																				
Total Solids	%	n/v	78	77	92	80	80	86	-	-	-	-	-	-	-	-	-	-	-	
Volatile Organic Compounds																				
Acetone	µg/kg	500000 ^{AC} 1000000 ^B	12 U	22 U	27 U	7.0 U	10 U	5.7 U	25 U	25	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	
Acrylonitrile	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzene	µg/kg	44000 ^A 89000 ^B 60 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Bromobenzene	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bromodichloromethane	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Bromofom (tribromomethane)	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U J	6.3 U	5.4 U	6.2 U	6.1 U J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Bromomethane (Methyl bromide)	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Butylbenzene, n-	µg/kg	500000 ^A 1000000 ^B 12000 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Butylbenzene, tert-	µg/kg	500000 ^A 1000000 ^B 5900 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Carbon Disulfide	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U J	6.3 U	5.4 U	6.2 U	3.5 J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	22000 ^A 44000 ^B 760 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chlorobenzene (Monochlorobenzene)	µg/kg	500000 ^A 1000000 ^B 1100 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chlorobromomethane	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chloroethane (Ethyl Chloride)	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chloroform	µg/kg	350000 ^A 700000 ^B 370 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chloromethane	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chlorotoluene, 2-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chlorotoluene, 4-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cyclohexane	µg/kg	n/v	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15	5.0 U	5.0 U	
Cymene (p-Isopropyltoluene)	µg/kg	500000 ^A n/v ^B 1000000 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dibromo-3-Chloropropane (DBCP), 1,2-	µg/kg	n/v	6.4 U J	6.3 U	5.4 U	6.2 U	6.1 U J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dibromochloromethane	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U J	6.3 U	5.4 U	6.2 U	6.1 U J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dibromomethane (Methylene Bromide)	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichlorobenzene, 1,2-	µg/kg	500000 ^A 1000000 ^B 1100 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichlorobenzene, 1,3-	µg/kg	280000 ^A 560000 ^B 2400 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichlorobenzene, 1,4-	µg/kg	130000 ^A 250000 ^B 1800 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichlorobutene, trans-1,4-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichlorodifluoromethane	µg/kg	n/v	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichloroethane, 1,1-	µg/kg	240000 ^A 480000 ^B 270 ^C	67 J	2.2 J	5.4 U	110	2.5 J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	8.0	5.0 U	
Dichloroethane, 1,2-	µg/kg	30000 ^A 60000 ^B 20 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichloroethylene, 1,1-	µg/kg	500000 ^A 1000000 ^B 330 ^C	42	1.4 J	5.4 U	22	5.3 J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichloroethylene, cis-1,2-	µg/kg	500000 ^A 1000000 ^B 250 ^C	3.6 J	4.6 J	5.4 U	2.1 J	1.4 J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichloroethylene, trans-1,2-	µg/kg	500000 ^A 1000000 ^B 190 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichloropropane, 1,2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichloropropane, 1,3-	µg/kg	500000 ^A n/v ^B 1000000 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichloropropane, 2,2-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichloropropene, 1,1-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichloropropene, cis-1,3-	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dichloropropene, trans-1,3-	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Diisopropyl Ether	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dioxane, 1,4-	µg/kg	130000 ^A 250000 ^B 100 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethanol	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethyl Ether	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

See last page for notes.

Table 11
 Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
 Phase II (2009) and Remedial Investigation (2010-2011)
 Former Allegany Bitumens
 Belmont Asphalt Plant
 Amity, New York

Sample Location		B/MW-23		B-24			B/MW-25	B/MW-26	B/MW-27			B/MW-28D		B-29	B-30	B-31		B-32	
Sample Date		6-Dec-10	6-Dec-10	6-Dec-10	6-Dec-10	6-Dec-10	6-Dec-10	3-Feb-11	3-Feb-11	3-Feb-11	1-Feb-11	1-Feb-11	4-Feb-11	4-Feb-11	4-Feb-11	4-Feb-11	4-Feb-11	7-Feb-11	
Sample ID		BA-B23-S	BA-B23-S2	BA-B24-S	BA-B24-S2	BA-B24-S3	BA-B25-S	BA-B26-S	BA-B27-S	BA-B27-S2	BA-B27-S2/D	BA-B28D-S	BA-B28D-S2	BA-B29-S	BA-B30-S	BA-B31-S	BA-B31-S2	BA-B32-S	
Sample Depth		8 - 8.5 ft	10 - 10.6 ft	0.2 - 0.6 ft	6 - 6.6 ft	10 - 10.7 ft	6 - 7 ft	8 - 8.4 ft	0.4 - 1.4 ft	6.5 - 7.3 ft	6.5 - 7.3 ft	5.3 - 5.8 ft	39 - 40 ft	4.5 - 6 ft	4.6 - 5.4 ft	0.3 - 0.9 ft	8 - 9 ft	6 - 8.4 ft	
Sampling Company		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
Laboratory		TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	
Laboratory Work Order		RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	480-1342-1	
Laboratory Sample ID		RTL0630-05	RTL0630-06	RTL0630-02	RTL0630-03	RTL0630-04	RTL0630-01	480-1409-4	480-1409-1	480-1409-1	480-1409-2	480-1342-1	480-1342-1	480-1418-1	480-1418-2	480-1418-3	480-1418-4	480-1441-1	
Sample Type	Units	6NYCRR																	
Volatile Organic Compounds (cont'd)																			
Ethyl Tert Butyl Ether	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylbenzene	µg/kg	390000 ^A 780000 ^B 1000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	9.0	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	n/v	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Hexachlorobutadiene	µg/kg	500000 ^A n/v ^B 1000000 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hexanone, 2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	32 U	31 U	27 U	31 U	31 U	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	
Isopropylbenzene	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Methyl Acetate	µg/kg	n/v	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U *	5.0 U *	5.0 U *	5.0 U *	5.0 U *	5.0 U *	5.0 U *	5.0 U *	5.0 U *	5.0 U *	
Methyl Ethyl Ketone (MEK)	µg/kg	500000 ^A 1000000 ^B 120 ^C	32 U	31 U	27 U	31 U	31 U	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	
Methyl Isobutyl Ketone (MIBK)	µg/kg	500000 ^A n/v ^B 1000000 ^C	32 U	31 U	27 U	31 U	31 U	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	
Methyl tert-butyl ether (MTBE)	µg/kg	500000 ^A 1000000 ^B 930 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Methylcyclohexane	µg/kg	n/v	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	38	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Methylene Chloride (Dichloromethane)	µg/kg	500000 ^A 1000000 ^B	5.7 J	11	6.6	8.2	4.8 J	5.2 J	5.0 U	6.1	5.0 U	5.1	7.1	5.6	11	5.0 U	5.2	5.0 U	
Naphthalene	µg/kg	500000 ^A 1000000 ^B 12000 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phenylbutane, 2- (sec-Butylbenzene)	µg/kg	500000 ^A 1000000 ^B 11000 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Propylbenzene, n-	µg/kg	500000 ^A 1000000 ^B 3900 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Styrene	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Tert Amyl Methyl Ether	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tert-Butyl Alcohol	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethane, 1,1,1,2-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethane, 1,1,2,2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Tetrachloroethylene (PCE)	µg/kg	150000 ^A 300000 ^B 1300 ^C	6.4 U	6.3 U	5.4 U	12	89 J	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Tetrahydrofuran	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Toluene	µg/kg	500000 ^A 1000000 ^B 700 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichlorobenzene, 1,2,3-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichlorobenzene, 1,2,4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichlorobenzene, 1,3,5-	µg/kg	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichloroethane, 1,1,1-	µg/kg	500000 ^A 1000000 ^B 680 ^C	12	18	5.4 U	4000 D ^C	400	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichloroethane, 1,1,2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichloroethylene (TCE)	µg/kg	200000 ^A 400000 ^B 470 ^C	10000 C ^C	89	2.3 J	35000 D ^C	5100 C ^C	7.3	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichlorofluoromethane (Freon 11)	µg/kg	n/v	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichloropropane, 1,2,3-	µg/kg	500000 ^A n/v ^B 1000000 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichlorotrifluoroethane (Freon 113)	µg/kg	500000 ^A n/v ^B 1000000 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trimethylbenzene, 1,2,4-	µg/kg	190000 ^A 380000 ^B 3600 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trimethylbenzene, 1,3,5-	µg/kg	190000 ^A 380000 ^B 8400 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vinyl chloride	µg/kg	13000 ^A 27000 ^B 20 ^C	6.4 U	6.3 U	5.4 U	6.2 U	6.1 U	5.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Xylene, m & p-	µg/kg	500000 ^A 1000000 ^B 1600 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Xylene, o-	µg/kg	500000 ^A 1000000 ^B 1600 ^C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Xylenes, Total	µg/kg	500000 ^A 1000000 ^B 1600 ^C	13 U	13 U	11 U	12 U	12 U	11 U	10 U	13	10 U	10 U	10 U	10 U	10 U	10 U	22	10 U	
Total VOC	µg/kg	500000 ^A n/v ^B 1000000 ^C	10130.3	126.2	8.9	39154.3	5606.5	12.5	ND	91.1	ND	5.1	7.1	5.6	11	ND	83.4	8.0	

See last page for notes.

Table 11
Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
Phase II (2009) and Remedial Investigation (2010-2011)
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Notes:

- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
- A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
- B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
- C NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
- d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
- g For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
- p The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
- * Indicates analysis is not within the quality control limits.
- D Reported result taken from diluted sample analysis.
- E Compound was over the calibration range.
- J Indicates estimated value.
- TALAM Test America Laboratories Inc., Amherst, New York
- ft feet
- ND Not detected

Table 11
**Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
Phase II (2009) and Remedial Investigation (2010-2011)
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York**

Sample Location			B/MW-6	B/MW-9	B/MW-10	B/MW-11	B/MW-12	B/MW-13	B/MW-14	B-15	B-17	B-19	B-20
Sample Date			1-Dec-10	30-Nov-10	30-Nov-10	30-Nov-10	29-Nov-10	29-Nov-10	30-Nov-10	2-Dec-10	3-Dec-10	3-Dec-10	3-Dec-10
Sample ID			BA-B6-S	BA-B9-S	BA-B10-S	BA-B11-S	BA-B12-S	BA-B13-S	BA-B14-S	BA-B15-S	BA-B17-S	BA-B19-S	BA-B20-S
Sample Depth			2 - 2.8 ft	8 - 10 ft	8 - 9.6 ft	8 - 9 ft	8 - 9 ft	8 - 8.6 ft	8 - 10 ft	8 - 10.3 ft	4.6 - 6.6 ft	4 - 4.9 ft	4 - 4.8 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728
Laboratory Sample ID			RTL0315-03	RTL1728-04	RTL0315-01	RTL0315-02	RTL1728-01	RTL1728-02	RTL1728-03	RTL0493-04	RTL0522-03	RTL0522-01	RTL0522-02
Sample Type	Units	6NYCRR											
General Chemistry													
Total Solids	%	n/v	77	77	84	82	84	84	77	78	79	73	77
Semi-Volatile Organic Compounds													
Acenaphthene	µg/kg	500000 ^A 1000000 ^B 98000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Acenaphthylene	µg/kg	500000 ^A 1000000 ^B 107000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Acetophenone	µg/kg	n/v	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Anthracene	µg/kg	500000 ^A 1000000 ^B 1000000 ^{BC}	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Atrazine	µg/kg	n/v	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Benzaldehyde	µg/kg	n/v	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Benzo(a)anthracene	µg/kg	5600 ^A 11000 ^B 1000 ^C	220 U	220 U	200 U	210 U	200 U	87 JD	220 U	220 U	210 U	230 U	220 U
Benzo(a)pyrene	µg/kg	1000 ^A 1100 ^B 22000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Benzo(b)fluoranthene	µg/kg	5600 ^A 11000 ^B 1700 ^C	220 U	220 U	200 U	210 U	200 U	93 JD	220 U	220 U	210 U	230 U	220 U
Benzo(g,h,i)perylene	µg/kg	500000 ^A 1000000 ^B 1000000 ^{BC}	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Benzo(k)fluoranthene	µg/kg	56000 ^A 110000 ^B 1700 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Biphenyl, 1,1'- (Biphenyl)	µg/kg	n/v	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Bis(2-Chloroethoxy)methane	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Bis(2-Chloroethyl)ether	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	500000 ^A n/v ^B 1000000 ^C	110 J B	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Bromophenyl Phenyl Ether, 4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Butyl Benzyl Phthalate	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Caprolactam	µg/kg	n/v	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Carbazole	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Chloro-3-methyl phenol, 4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Chloroaniline, 4	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Chloronaphthalene, 2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Chlorophenol, 2-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Chlorophenyl Phenyl Ether, 4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Chrysene	µg/kg	56000 ^A 110000 ^B 1000 ^C	220 U	220 U	200 U	210 U	200 U	70 JD	16 J	220 U	210 U	230 U	220 U
Cresol, o- (Methylphenol, 2-)	µg/kg	500000 ^A 1000000 ^B 330 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Cresol, p- (Methylphenol, 4-)	µg/kg	500000 ^A 1000000 ^B 330 ^C	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
Dibenzo(a,h)anthracene	µg/kg	560 ^A 1100 ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Dibenzofuran	µg/kg	350000 ^A 1000000 ^B 210000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Dichlorobenzidine, 3,3'-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Dichlorophenol, 2,4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Diethyl Phthalate	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Dimethyl Phthalate	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Dimethylphenol, 2,4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Di-n-Butyl Phthalate	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Dinitro-o-cresol, 4,6-	µg/kg	500000 ^A n/v ^B 1000000 ^C	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
Dinitrophenol, 2,4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
Dinitrotoluene, 2,4-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Dinitrotoluene, 2,6-	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Di-n-Octyl phthalate	µg/kg	500000 ^A n/v ^B 1000000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Fluoranthene	µg/kg	500000 ^A 1000000 ^B 1000000 ^{BC}	220 U	220 U	200 U	210 U	200 U	160 JD	220 U	220 U	210 U	230 U	220 U

See next page for notes.

Table 11
Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
Phase II (2009) and Remedial Investigation (2010-2011)
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Sample Location			B/MW-6	B/MW-9	B/MW-10	B/MW-11	B/MW-12	B/MW-13	B/MW-14	B-15	B-17	B-19	B-20
Sample Date			1-Dec-10	30-Nov-10	30-Nov-10	30-Nov-10	29-Nov-10	29-Nov-10	30-Nov-10	2-Dec-10	3-Dec-10	3-Dec-10	3-Dec-10
Sample ID			BA-B6-S	BA-B9-S	BA-B10-S	BA-B11-S	BA-B12-S	BA-B13-S	BA-B14-S	BA-B15-S	BA-B17-S	BA-B19-S	BA-B20-S
Sample Depth			2 - 2.8 ft	8 - 10 ft	8 - 9.6 ft	8 - 9 ft	8 - 9 ft	8 - 8.6 ft	8 - 10 ft	8 - 10.3 ft	4.6 - 6.6 ft	4 - 4.9 ft	4 - 4.8 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728	RTK1728
Laboratory Sample ID			RTL0315-03	RTK1728-04	RTL0315-01	RTL0315-02	RTK1728-01	RTK1728-02	RTK1728-03	RTL0493-04	RTL0522-03	RTL0522-01	RTL0522-02
Sample Type	Units	6NYCRR											
Semi-Volatile Organic Compounds (cont'd)													
Fluorene	µg/kg	500000 ^A 1000000 ^B 386000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Hexachlorobenzene	µg/kg	6000 ^A 12000 ^B 3200 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Hexachlorobutadiene	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Hexachlorocyclopentadiene	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Hexachloroethane	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Indeno(1,2,3-cd)pyrene	µg/kg	5600 ^A 11000 ^B 8200 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Isophorone	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Methylnaphthalene, 2-	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Naphthalene	µg/kg	500000 ^A 1000000 ^B 12000 ^C	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Nitroaniline, 2-	µg/kg	500000 ^A n/v ^B 1000000 ^D	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
Nitroaniline, 3-	µg/kg	500000 ^A n/v ^B 1000000 ^D	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
Nitroaniline, 4-	µg/kg	500000 ^A n/v ^B 1000000 ^D	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
Nitrobenzene	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Nitrophenol, 2-	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Nitrophenol, 4-	µg/kg	500000 ^A n/v ^B 1000000 ^D	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
N-Nitrosodi-n-Propylamine	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
n-Nitrosodiphenylamine	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Pentachlorophenol	µg/kg	6700 ^A 55000 ^B 800 ^C	420 U	420 U	390 U	400 U	390 U	1900 U D	420 U	420 U	410 U	440 U	420 U
Phenanthrene	µg/kg	500000 ^A 1000000 ^B	220 U	220 U	200 U	210 U	200 U	120 JD	220 U	220 U	210 U	230 U	220 U
Phenol	µg/kg	500000 ^A 1000000 ^B 330 ^F	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Pyrene	µg/kg	500000 ^A 1000000 ^B	220 U	220 U	200 U	210 U	200 U	120 JD	19 J	220 U	210 U	230 U	220 U
Trichlorophenol, 2,4,5-	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U
Trichlorophenol, 2,4,6-	µg/kg	500000 ^A n/v ^B 1000000 ^D	220 U	220 U	200 U	210 U	200 U	990 U D	220 U	220 U	210 U	230 U	220 U

- Notes:**
- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
 - ^A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
 - ^B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
 - ^C NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
 - 6.5^A** Concentration exceeds the indicated standard.
 - 15.2** Concentration was detected but did not exceed applicable standards.
 - 0.50 U** Laboratory estimated quantitation limit exceeded standard.
 - 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
 - n/v No standard/guideline value.
 - Parameter not analyzed / not available.
 - ^c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
 - ^d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
 - ^f For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
 - ^g For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
 - ^{AC} Analyte was detected in the associated Method Blank.
 - ^g Reported result taken from diluted sample analysis.
 - J Indicates estimated value.
 - TALAM Test America Laboratories Inc., Amherst, New York
 - ft feet

Table 11
 Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
 Phase II (2009) and Remedial Investigation (2010-2011)
 Former Allegany Bitumens
 Belmont Asphalt Plant
 Amity, New York

Sample Location			B/MW-9	B/MW-10	B/MW-14	B-15	B-17
Sample Date			30-Nov-10	30-Nov-10	30-Nov-10	2-Dec-10	3-Dec-10
Sample ID			BA-B9-S	BA-B10-S	BA-B14-S	BA-B15-S	BA-B17-S
Sample Depth			8 - 10 ft	8 - 9.6 ft	8 - 10 ft	8 - 10.3 ft	4.6 - 6.6 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTK1728	RTK1728	RTK1728	RTK1728	RTK1728
Laboratory Sample ID			RTK1728-04	RTL0315-01	RTK1728-03	RTL0493-04	RTL0522-03
Sample Type	Units	6NYCRR					
Metals							
Aluminum	mg/kg	10000 ^A n/V ^B 10000 ^C	7130	6900	8810	8980 B	7490
Antimony	mg/kg	10000 ^A n/V ^B 10000 ^C	19.1 U J	17.6 U J	19.3 U J	1.0 J	18.4 U J
Arsenic	mg/kg	16 ^{ABC}	7.5	6.9	9.5	7.7	7.0
Barium	mg/kg	400 ^A 10000 ^B 820 ^C	53.2	50.9	45.8	69.6	46.9
Beryllium	mg/kg	590 ^A 2700 ^B 47 ^C	0.360	0.359	0.450	0.439	0.377
Cadmium	mg/kg	9.3 ^A 60 ^B 7.5 ^C	0.141 J	0.146 J	0.149 J	0.145 J	0.140 J
Calcium	mg/kg	10000 ^A n/V ^B 10000 ^C	26300 B ^{AC}	24100 B ^{AC}	25200 B ^{AC}	28600 B ^{AC}	26200 B ^{AC}
Chromium (Total)	mg/kg	NS, q ^{ABC}	9.24	9.09	11.5	12.7	10.1
Cobalt	mg/kg	10000 ^A n/V ^B 10000 ^C	7.68	7.40	9.78	9.88	8.49
Copper	mg/kg	270 ^A 10000 ^B 1720 ^C	17.2	15.3	17.5	18.1	15.9
Iron	mg/kg	10000 ^A n/V ^B 10000 ^C	17000 B ^{AC}	16400 B ^{AC}	21100 B ^{AC}	20200 B ^{AC}	17600 B ^{AC}
Lead	mg/kg	1000 ^A 3900 ^B 450 ^C	10.2	9.6	11.7	11.0	9.3
Magnesium	mg/kg	10000 ^A n/V ^B 10000 ^C	11300 ^{AC}	10500 ^{AC}	11700 ^{AC}	12600 ^{AC}	11300 ^{AC}
Manganese	mg/kg	10000 ^{AB} 2000 ^C	432 B	409 B	482 B	597 B	378
Mercury	mg/kg	2.8 ^A 5.7 ^B 0.73 ^C	0.0241 U	0.0238 U	0.0256 U	0.0255 U	0.0246 U
Nickel	mg/kg	310 ^A 10000 ^B 130 ^C	17.0	16.4	21.5	21.9	18.8
Potassium	mg/kg	10000 ^A n/V ^B 10000 ^C	1430 J	1310 J	1580 J	1570 J	1300 J
Selenium	mg/kg	1500 ^A 6800 ^B 4 ^C	5.1 U	4.7 U	5.1 U	5.0 U	4.9 U
Silver	mg/kg	1500 ^A 6800 ^B 8.3 ^C	0.637 U	0.585 U	0.643 U	0.631 U	0.615 U
Sodium	mg/kg	10000 ^A n/V ^B 10000 ^C	96.4 J	111 J	88.4 J	120 J	78.2 J
Thallium	mg/kg	10000 ^A n/V ^B 10000 ^C	7.6 U	7.0 U	7.7 U	7.6 U	7.4 U
Vanadium	mg/kg	10000 ^A n/V ^B 10000 ^C	11.2	10.7	13.3	14.5	12.7
Zinc	mg/kg	10000 ^{AB} 2480 ^C	46.2 B	45.0 B	52.3 B	50.1 B	43.6
Pesticides							
Aldrin	µg/kg	680 ^A 1400 ^B 190 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
BHC, alpha-	µg/kg	3400 ^A 6800 ^B 20 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
BHC, beta-	µg/kg	3000 ^A 14000 ^B 90 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
BHC, delta-	µg/kg	500000 ^A 1000000 ^B 250 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Camphechlor (Toxaphene)	µg/kg	500000 ^A n/V ^B 1000000 ^C	21 U	20 U	21 U J	21 U	21 U
Chlordane (Total)	µg/kg	500000 ^A n/V ^B 1000000 ^C	21 U	-	21 U J	-	-
Chlordane, alpha-	µg/kg	24000 ^A 47000 ^B 2900 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Chlordane, gamma-	µg/kg	500000 ^A n/V ^B 1000000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
DDD (p,p'-DDD)	µg/kg	92000 ^A 180000 ^B 14000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
DDE (p,p'-DDE)	µg/kg	62000 ^A 120000 ^B 17000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
DDT (p,p'-DDT)	µg/kg	47000 ^A 94000 ^B 136000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Dieldrin	µg/kg	1400 ^A 2800 ^B 100 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Endosulfan I	µg/kg	200000 ^A 920000 ^B 102000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Endosulfan II	µg/kg	200000 ^A 920000 ^B 102000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Endosulfan Sulfate	µg/kg	200000 ^A 920000 ^B 1000000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Endrin	µg/kg	89000 ^A 410000 ^B 60 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Endrin Aldehyde	µg/kg	500000 ^A n/V ^B 1000000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Endrin Ketone	µg/kg	500000 ^A n/V ^B 1000000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Heptachlor	µg/kg	15000 ^A 29000 ^B 380 ^C	2.1 U	2.0 U J	2.1 U J	2.1 U J	2.1 U J
Heptachlor Epoxide	µg/kg	500000 ^A n/V ^B 1000000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	9200 ^A 23000 ^B 100 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	500000 ^A n/V ^B 1000000 ^C	2.1 U	2.0 U	2.1 U J	2.1 U	2.1 U

See next page for notes.

Table 11
Summary of Analytical Results in Subsurface Soil from Boring and Monitoring Well Locations
Phase II (2009) and Remedial Investigation (2010-2011)
Former Allegany Bitumens
Belmont Asphalt Plant
Amity, New York

Sample Location			B/MW-9	B/MW-10	B/MW-14	B-15	B-17
Sample Date			30-Nov-10	30-Nov-10	30-Nov-10	2-Dec-10	3-Dec-10
Sample ID			BA-B9-S	BA-B10-S	BA-B14-S	BA-B15-S	BA-B17-S
Sample Depth			8 - 10 ft	8 - 9.6 ft	8 - 10 ft	8 - 10.3 ft	4.6 - 6.6 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			RTK1728	RTK1728	RTK1728	RTK1728	RTK1728
Laboratory Sample ID			RTK1728-04	RTL0315-01	RTK1728-03	RTL0493-04	RTL0522-03
Sample Type	Units	6NYCRR					
Polychlorinated Biphenyls							
Aroclor 1016	µg/kg	1000 ^A 25000 ^B 3200 ^C	21 U J	20 U J	21 U J	21 U J	21 U J
Aroclor 1221	µg/kg	1000 ^A 25000 ^B 3200 ^C	21 U	20 U	21 U	21 U	21 U
Aroclor 1232	µg/kg	1000 ^A 25000 ^B 3200 ^C	21 U	20 U	21 U	21 U	21 U
Aroclor 1242	µg/kg	1000 ^A 25000 ^B 3200 ^C	21 U	20 U	21 U	21 U	21 U
Aroclor 1248	µg/kg	1000 ^A 25000 ^B 3200 ^C	21 U	20 U	21 U	21 U	21 U
Aroclor 1254	µg/kg	1000 ^A 25000 ^B 3200 ^C	21 U	20 U	21 U	21 U	21 U
Aroclor 1260	µg/kg	1000 ^A 25000 ^B 3200 ^C	21 U	20 U	21 U	21 U	21 U
Aroclor 1262	µg/kg	n/v	21 U	20 U	21 U	21 U	21 U
Aroclor 1268	µg/kg	n/v	21 U	20 U	21 U	21 U	21 U

- Notes:**
- 6NYCRR NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
 - A NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
 - B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
 - C NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
 - 6.5^A** Concentration exceeds the indicated standard.
 - 15.2** Concentration was detected but did not exceed applicable standards.
 - 0.50 U** Laboratory estimated quantitation limit exceeded standard.
 - 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
 - n/v No standard/guideline value.
 - Parameter not analyzed / not available.
 - NS_d No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium. For commercial use, these are 1500 and 400 mg/kg respectively.
 - c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
 - d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
 - AB_e The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
 - ABC_g For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
 - AB_j This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
 - ABC_o The criterion is applicable to total PCBs, and the individual aroclors should be added for comparison.
 - B Analyte was detected in the associated Method Blank.
 - J Indicates estimated value.
 - TALAM Test America Laboratories Inc., Amherst, New York
 - ft feet

Table 12
 Summary of Analytical Results in Groundwater
 Phase II (2009) and Remediation Investigation (2010-2011)
 Former Allegany Bitumens Belmont Asphalt Plant
 Amity, New York

Sample Location		Units	TOGS	BS-1		BS-2		BS-3			BS-4			B/MW-5		B/MW-6		B/MW-7		B/MW-8		B/MW-9					
				10-Dec-09	10-Dec-09	5-Jan-11	21-Apr-11	11-Dec-09	5-Jan-11	21-Apr-11	11-Dec-09	4-Jan-11	21-Apr-11	5-Jan-11	20-Apr-11	6-Jan-11	21-Apr-11	5-Jan-11	20-Apr-11	7-Jan-11	20-Apr-11	5-Jan-11	5-Jan-11				
Sample Date	Sample ID	Sampling Company	Laboratory	Laboratory Work Order	Laboratory Sample ID	Sample Type	BS-GW-1	BS-GW-2	BA-BS2-W	BA-BS2-R2-W	BS-GW-3	BA-BS3-W	BA-BS3-R2-W	BS-GW-4	BA-BS4-W	BA-BS4-R2-W	BA-MW5-W	BA-MW5-R2-W	BA-MW6-W	BA-MW6-R2-W	BA-MW7-W	BA-MW7-R2-W	BA-MW8-W	BA-MW8-R2-W	BA-MW9-W	BA-MW9-W/D	
Laboratory	Laboratory Work Order	Laboratory Sample ID	Sample Type				STANTEC	STANTEC	TALAM	TALAM	STANTEC	TALAM	TALAM	STANTEC	TALAM	TALAM	STANTEC	TALAM	STANTEC	STANTEC	STANTEC	STANTEC	TALAM	TALAM	TALAM	TALAM	
							SB05469	SB05469	480-548-1	480-4050-1	SB05538	480-548-1	480-4050-1	SB05538	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-548-1	
							SB05469-03	SB05469-04	480-633-6	480-4050-7	SB05538-02	480-633-5	480-4050-8	SB05538-04	480-548-3	480-4050-9	480-633-4	480-4050-4	480-689-5	480-4050-10	480-633-2	480-4050-5	480-689-7	480-4050-2	480-548-5	480-548-6	
Sample Type	Units	TOGS																								Field Duplicate	
Volatile Organic Compounds																											
Acetone	µg/L	50 ^A	4.6 U	45.8 U	10 U	10 U	4.6 U	10 U	10 U	22.9 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acrylonitrile	µg/L	5 ^B	0.5 U	4.8 U	5.0 U	-	0.5 U	5.0 U	-	2.4 U	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U
Benzene	µg/L	1 ^B	0.5 U	4.9 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	2.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	µg/L	5 ^B	0.5 U	4.7 U	-	-	0.5 U	-	-	2.4 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bromodichloromethane	µg/L	50 ^A	0.5 U	4.9 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	2.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform (tribromomethane)	µg/L	50 ^A	1.0 U	9.7 U	1.0 U	1.0 U J	1.0 U	1.0 U	1.0 U J	4.8 U	1.0 U	1.0 U J	4.8 U	1.0 U	1.0 U J	4.8 U	1.0 U	1.0 U	1.0 U	1.0 U J	4.8 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5 ^B	1.2 U	12.5 U	1.0 U	1.0 U	1.2 U	1.0 U	1.0 U	6.2 U	1.0 U	1.0 U	6.2 U	1.0 U	1.0 U	6.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Butylbenzene, n-	µg/L	5 ^B	0.8 U	8.3 U	-	-	0.8 U	-	-	4.2 U	-	-	4.2 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butylbenzene, tert-	µg/L	5 ^B	0.5 U	5.1 U	-	-	0.5 U	-	-	2.6 U	-	-	2.6 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	µg/L	60 ^A	0.9 U	8.9 U	1.0 U	1.0 U	0.9 U	1.0 U	1.0 U	4.4 U	1.0 U	1.0 U	4.4 U	1.0 U	1.0 U	4.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5 ^B	0.8 U	8.5 U	1.0 U	1.0 U	0.8 U	1.0 U	1.0 U	4.2 U	1.0 U	1.0 U	4.2 U	1.0 U	1.0 U	4.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Fluorocarbon (Freon 113)	µg/L	5 ^B	1.0 U	9.9 U	-	1.0 U	1.0 U	-	1.0 U	5.0 U	-	1.0 U	5.0 U	-	1.0 U	5.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-
Chlorobenzene (Monochlorobenzene)	µg/L	5 ^B	0.5 U	5.0 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobromomethane	µg/L	5 ^B	1.0 U	9.5 U	1.0 U	-	1.0 U	1.0 U	-	4.8 U	1.0 U	-	4.8 U	1.0 U	-	4.8 U	1.0 U	-	4.8 U	1.0 U	-	4.8 U	1.0 U	-	4.8 U	1.0 U	1.0 U
Chloroethane (Ethyl Chloride)	µg/L	5 ^B	1.1 U	11.0 U	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	5.5 U	1.0 U	1.0 U	5.5 U	1.0 U	1.0 U	5.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	7 ^B	0.8 U	8.1 U	1.0 U	1.0 U	0.8 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	5 ^B	0.9 U	8.8 U	1.0 U	1.0 U	0.9 U	1.0 U	1.0 U	4.4 U	1.0 U	1.0 U	4.4 U	1.0 U	1.0 U	4.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorotoluene, 2-	µg/L	5 ^B	0.7 U	6.7 U	-	-	0.7 U	-	-	3.4 U	-	-	3.4 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorotoluene, 4-	µg/L	5 ^B	0.5 U	5.3 U	-	-	0.5 U	-	-	2.6 U	-	-	2.6 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	n/v		-	-	1.0 U	-	-	1.0 U	-	-	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-
Cymene (p-Isopropyltoluene)	µg/L	5 ^B	0.5 U	5.1 U	-	-	0.5 U	-	-	2.6 U	-	-	2.6 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromo-3-Chloropropane (DBCP), 1,2-	µg/L	0.04 ^B	1.7 U	16.6 U	1.0 U	1.0 U	1.7 U	1.0 U	1.0 U	8.3 U	1.0 U	1.0 U	8.3 U	1.0 U	1.0 U	8.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	50 ^A	0.4 U	4.4 U	1.0 U	1.0 U J	0.4 U	1.0 U	1.0 U J	2.2 U	1.0 U	1.0 U J	2.2 U	1.0 U	1.0 U J	2.2 U	1.0 U	1.0 U	1.0 U J	2.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane (Methylene Bromide)	µg/L	5 ^B	0.7 U	6.7 U	1.0 U	-	0.7 U	1.0 U	-	3.4 U	1.0 U	-	3.4 U	1.0 U	-	3.4 U	1.0 U	-	3.4 U	1.0 U	-	3.4 U	1.0 U	-	3.4 U	1.0 U	1.0 U
Dichlorobenzene, 1,2-	µg/L	3 ^B	0.4 U	4.5 U	1.0 U	1.0 U	0.4 U	1.0 U	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U	1.0 U	1.0 U	2.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorobenzene, 1,3-	µg/L	3 ^B	0.5 U	5.4 U	-	1.0 U	0.5 U	-	1.0 U	2.7 U	-	1.0 U	2.7 U	-	1.0 U	2.7 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-
Dichlorobenzene, 1,4-	µg/L	3 ^B	0.5 U	5.2 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	2.6 U	1.0 U	1.0 U	2.6 U	1.0 U	1.0 U	2.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorobutene, trans-1,4-	µg/L	n/v	2.8 U	27.7 U	5.0 U	-	2.8 U	5.0 U	-	13.8 U	5.0 U	-	13.8 U	5.0 U	-	13.8 U	5.0 U	-	13.8 U	5.0 U	-	13.8 U	5.0 U	-	13.8 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/L	5 ^B	0.9 U	8.8 U	-	1.0 U	0.9 U	-	1.0 U	4.4 U	-	1.0 U	4.4 U	-	1.0 U	4.4 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-
Dichloroethane, 1,1-	µg/L	5 ^B	0.6 U	8.4 J ^B	200 ^B	1.0 U	0.6 U	1.0 U	1.0 U	110 ^B	190 ^B	1.2	110 ^B	190 ^B	1.2	110 ^B	190 ^B	1.2	110 ^B	190 ^B	1.2	110 ^B	190 ^B	1.2	110 ^B	190 ^B	1.2
Dichloroethane, 1,2-	µg/L	0.6 ^B	0.6 U	6.3 U	1.0 U	1.0 U	0.6 U	1.0 U	1.0 U	3.2 U	1.0 U	1.0 U	3.2 U	1.0 U	1.0 U	3.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethylene, 1,1-	µg/L	5 ^B	0.7 U	7.2 U	28 ^B	1.0 U	0.7 U	1.0 U	1.0 U	25.6 ^B	120 ^B	2.5	25.6 ^B	120 ^B	2.5	25.6 ^B	120 ^B	2.5	25.6 ^B	120 ^B	2.5	25.6 ^B	120 ^B	2.5	25.6 ^B	120 ^B	2.5
Dichloroethylene, cis-1,2-	µg/L	5 ^B	0.6 U	6.6 J ^B	160 ^B	1.4	0.6 U	1.0 U	1.0 U	8.0 ^B	12 ^B	1.0 U	8.0 ^B	12 ^B	1.0 U	8.0 ^B	12 ^B	1.0 U	8.0 ^B	12 ^B	1.0 U	8.0 ^B	12 ^B	1.0 U	8.0 ^B	12 ^B	1.0 U
Dichloroethylene, trans-1,2-	µg/L	5 ^B	0.9 U	9.1 U	1.7	1.0 U	0.9 U	1.0 U	1.0 U	4.6 U	1.4	1.0 U	4.6 U	1.4	1.0 U	4.6 U	1.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropane, 1,2-	µg/L	1 ^B	0.5 U	5.3 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	2.6 U	1.0 U	1.0 U	2.6 U	1.0 U	1.0 U	2.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropane, 1,3-	µg/L	5 ^B	0.7 U	6.6 U	-	-	0.7 U	-	-	3.3 U	-	-	3.3 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5 ^B	0.6 U	6.2 U	-	-	0.6 U	-	-	3.1 U	-	-	3.1 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,1-	µg/L	5 ^B	0.8 U	7.8 U	-	-	0.8 U	-	-	3.9 U	-	-	3.9 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4 ^B	0.4 U	4.0 U	1.0 U	1.0 U	0.4 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U								

Table 12
 Summary of Analytical Results in Groundwater
 Phase II (2009) and Remediation Investigation (2010-2011)
 Former Allegany Bitumens Belmont Asphalt Plant
 Amity, New York

Sample Location	Units	TOGS	BS-1		BS-2		BS-3			BS-4			B/MW-5		B/MW-6		B/MW-7		B/MW-8		B/MW-9	
			10-Dec-09	10-Dec-09	5-Jan-11	21-Apr-11	11-Dec-09	5-Jan-11	21-Apr-11	11-Dec-09	4-Jan-11	21-Apr-11	5-Jan-11	20-Apr-11	6-Jan-11	21-Apr-11	5-Jan-11	20-Apr-11	7-Jan-11	20-Apr-11	5-Jan-11	5-Jan-11
Sample Date			BS-GW-1	BS-GW-2	BA-BS2-W	BA-BS2-R2-W	BS-GW-3	BA-BS3-W	BA-BS3-R2-W	BS-GW-4	BA-BS4-W	BA-BS4-R2-W	BA-MW5-W	BA-MW5-R2-W	BA-MW6-W	BA-MW6-R2-W	BA-MW7-W	BA-MW7-R2-W	BA-MW8-W	BA-MW8-R2-W	BA-MW9-W	BA-MW9-W/D
Sample ID			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Sampling Company			SPECTRUM	SPECTRUM	TALAM	TALAM	SPECTRUM	TALAM	TALAM	SPECTRUM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory			SB05469	SB05469	480-548-1	480-4050-1	SB05538	480-548-1	480-4050-1	SB05538	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-548-1	480-548-1
Laboratory Work Order			SB05469-03	SB05469-04	480-633-6	480-4050-7	SB05538-02	480-633-5	480-4050-8	SB05538-04	480-548-3	480-4050-9	480-633-4	480-4050-4	480-689-5	480-4050-10	480-633-2	480-4050-5	480-689-7	480-4050-2	480-548-5	480-548-6
Laboratory Sample ID																						
Sample Type																						Field Duplicate
Volatile Organic Compounds (cont'd)																						
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006 ^B	0.5 U	4.9 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	2.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	0.5 ^B	0.5 U	4.9 U	-	-	0.5 U	-	-	2.4 U	-	-	-	-	-	-	-	-	-	-	-	-
Hexanone, 2-	µg/L	50 ^A	2.7 U	26.8 U	5.0 U	5.0 U	2.7 U	5.0 U	5.0 U	13.4 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Iodomethane	µg/L	5 ^B	-	-	1.0 U	-	-	1.0 U	-	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	1.0 U
Isopropylbenzene	µg/L	5 ^B	0.5 U	5.2 U	-	1.0 U	0.5 U	-	1.0 U	2.6 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	-
Methyl Acetate	µg/L	n/v	-	-	-	1.0 U	-	-	1.0 U	-	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	-
Methyl Ethyl Ketone (MEK)	µg/L	50 ^A	4.1 U	40.8 U	10 U	10 U	4.1 U	10 U	10 U	20.4 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	1.1 U	10.9 U	5.0 U	5.0 U	1.1 U	5.0 U	5.0 U	5.4 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether (MTBE)	µg/L	10 ^A	0.8 U	8.5 U	-	1.0 U	0.8 U	-	1.0 U	4.2 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	-
Methylcyclohexane	µg/L	n/v	-	-	-	1.0 U	-	-	1.0 U	-	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	-
Methylene Chloride (Dichloromethane)	µg/L	5 ^B	0.6 U	6.4 U	1.0 U	1.0 U	0.6 U	1.0 U	1.0 U	3.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	10 ^B	1.0 U	9.6 U	-	-	1.0 U	-	-	4.8 U	-	-	-	-	-	-	-	-	-	-	-	-
Phenylbutane, 2- (sec-Butylbenzene)	µg/L	5 ^B	0.5 U	5.4 U	-	-	0.5 U	-	-	2.7 U	-	-	-	-	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/L	5 ^B	0.5 U	5.3 U	-	-	0.5 U	-	-	2.6 U	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	5 ^B	0.9 U	9.2 U	1.0 U	1.0 U	0.9 U	1.0 U	1.0 U	4.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tert Amyl Methyl Ether	µg/L	n/v	0.6 U	6.4 U	-	-	0.6 U	-	-	3.2 U	-	-	-	-	-	-	-	-	-	-	-	-
Tert-Butyl Alcohol	µg/L	n/v	9.6 U	96.4 U	-	-	9.6 U	-	-	48.2 U	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/L	5 ^B	0.5 U	5.4 U	1.0 U	-	0.5 U	1.0 U	-	2.7 U	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	1.0 U
Tetrachloroethane, 1,1,2,2-	µg/L	5 ^B	0.5 U	4.6 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	2.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethylene (PCE)	µg/L	5 ^B	0.7 U	7.2 U	5.6 ^B	1.6	0.7 U	1.0 U	1.0 U	3.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrahydrofuran	µg/L	50 ^A	2.4 U	24.2 U	-	-	2.4 U	-	-	12.1 U	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/L	5 ^B	0.8 U	7.6 U	1.2	1.0 U	1.6	1.0 U	1.0 U	3.8 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorobenzene, 1,2,3-	µg/L	5 ^B	0.6 U	5.7 U	-	-	0.6 U	-	-	2.8 U	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorobenzene, 1,2,4-	µg/L	5 ^B	0.6 U	5.9 U	-	1.0 U	0.6 U	-	1.0 U	3.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	-
Trichlorobenzene, 1,3,5-	µg/L	5 ^B	0.5 U	5.4 U	-	-	0.5 U	-	-	2.7 U	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,1-	µg/L	5 ^B	0.6 U	80.3 ^B	4.6	4.7	1.5	1.0 U	1.0 U	12.8 ^B	22 ^B	9.7 ^B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U
Trichloroethane, 1,1,2-	µg/L	1 ^B	0.7 U	7.3 U	1.0 U	1.0 U	0.7 U	1.0 U	1.0 U	3.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethylene (TCE)	µg/L	5 ^B	1.3	611 ^B	12000 ^B	46 ^B	8.2 ^B	1.0 U	1.0 U	2080 ^B	3600 ^B	91 ^B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3	6.6 ^B	1.0 U
Trichlorofluoromethane (Freon 11)	µg/L	5 ^B	0.7 U	6.9 U	1.0 U	1.0 U	0.7 U	1.0 U	1.0 U	3.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloropropane, 1,2,3-	µg/L	0.04 ^B	0.9 U	9.3 U	1.0 U	-	0.9 U	1.0 U	-	4.6 U	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	1.0 U
Trimethylbenzene, 1,2,4-	µg/L	5 ^B	0.4 U	4.5 U	-	-	0.4 U	-	-	2.2 U	-	-	-	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	5 ^B	0.5 U	5.0 U	-	-	0.5 U	-	-	2.5 U	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	µg/L	n/v	-	-	5.0 U	-	-	5.0 U	-	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	-	5.0 U	5.0 U
Vinyl chloride	µg/L	2 ^B	0.9 U	8.6 U	1.0 U	1.0 U	0.9 U	1.0 U	1.0 U	4.3 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene, m & p-	µg/L	5 ^B	1.0 U	9.8 U	-	-	1.0 U	-	-	4.9 U	-	-	-	-	-	-	-	-	-	-	-	-
Xylene, o-	µg/L	5 ^B	0.5 U	4.9 U	-	-	0.5 U	-	-	2.4 U	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	µg/L	5 ^B	-	-	2.0 U	2.0 U	-	2.0 U	2.0 U	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOC	µg/L	n/v	1.3	706.3	12401.1	53.7	11.3	ND	ND	2236.4	3947	104.4	ND	ND	ND	1	ND	ND	3.3	8.5	ND	ND

See last page for notes.

Table 12

Summary of Analytical Results in Groundwater
Phase II (2009) and Remediation Investigation (2010-2011)
Former Allegheny Bitumens Belmont Asphalt Plant
Amity, New York

Sample Location			B/MW-10	B/MW-11	B/MW-12	B/MW-13	B/MW-14	B/MW-22		B/MW-23			B/MW-25		B/MW-26	B/MW-27			B/MW-28D	WSW	TP-RB	
Sample Date			6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	5-Jan-11	20-Apr-11	7-Jan-11	21-Apr-11	21-Apr-11	4-Jan-11	20-Apr-11	22-Feb-11	22-Feb-11	22-Feb-11	22-Feb-11	22-Feb-11	7-Dec-10	26-Oct-10	
Sample ID			BA-MW10-W	BA-MW11-W	BA-MW12-W	BA-MW13-W*	BA-MW14-W	BA-MW22-W	BA-MW22-R2-W	BA-MW23-W	BA-MW23-R2-W	BA-MW23-R2-W/D	BA-MW25-W	BA-MW25-R2-W	BA-MW26-W	BA-MW27-W	BA-MW27-W/D	BA-MW28D-W	BA-MW28D-W	BA-WSW-W	BA-TP-RB-W	
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	
Laboratory Work Order			480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-4050-1	480-548-1	480-4050-1	480-1891-1	480-1891-1	480-1891-1	480-1891-1	480-1891-1	RTL0627	RTJ1956	
Laboratory Sample ID			480-689-1	480-633-7	480-689-3	480-689-4	480-689-2	480-633-3	480-4050-3	480-689-6	480-4050-11	480-4050-12	480-548-2	480-4050-6	480-1891-1	480-1891-2	480-1891-4	480-1891-3	480-1891-3	RTL0627-01	RTJ1956-13	
Sample Type	Units	TOGS																				
Volatile Organic Compounds																						
Acetone	µg/L	50 ^A	10 U	10 U	10 U	46 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Acrylonitrile	µg/L	5 ^{..B}	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	-	5.0 U	-	-	5.0 U	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	-	-	
Benzene	µg/L	1 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromobenzene	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bromodichloromethane	µg/L	50 ^A	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform (tribromomethane)	µg/L	50 ^A	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Butylbenzene, n-	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Butylbenzene, tert-	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Carbon Disulfide	µg/L	60 ^A	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorinated Fluorocarbon (Freon 113)	µg/L	5 ^{..B}	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	-	1.0 U J	1.0 U	
Chlorobenzene (Monochlorobenzene)	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobromomethane	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	-	1.0 U	-	-	1.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
Chloroethane (Ethyl Chloride)	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform	µg/L	7 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorotoluene, 2-	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chlorotoluene, 4-	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cyclohexane	µg/L	n/v	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	-	1.0 U	1.0 U	
Cymene (p-Isopropyltoluene)	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dibromo-3-Chloropropane (DBCP), 1,2-	µg/L	0.04 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	µg/L	50 ^A	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromomethane (Methylene Bromide)	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	-	1.0 U	-	-	1.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
Dichlorobenzene, 1,2-	µg/L	3 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorobenzene, 1,3-	µg/L	3 ^B	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	-	1.0 U	1.0 U	
Dichlorobenzene, 1,4-	µg/L	3 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorobutene, trans-1,4-	µg/L	n/v	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	-	5.0 U	-	-	5.0 U	-	50 U	50 U	50 U	50 U	50 U	-	-	
Dichlorodifluoromethane	µg/L	5 ^{..B}	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	-	1.0 U	1.0 U	
Dichloroethane, 1,1-	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	71 ^B	1.0 U	1.0 U	4.6	1.0 U	1.0 U	2.4	2.4	1.0 U	1.0 U	1.0 U	1.0 U	
Dichloroethane, 1,2-	µg/L	0.6 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichloroethylene, 1,1-	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	71 ^B	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichloroethylene, cis-1,2-	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	6.0 ^B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1.2	1.0 U	1.0 U	1.0 U	1.0 U	
Dichloroethylene, trans-1,2-	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichloropropane, 1,2-	µg/L	1 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichloropropane, 1,3-	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichloropropane, 2,2-	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichloropropene, 1,1-	µg/L	5 ^{..B}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dichloropropene, cis-1,3-	µg/L	0.4 ^{p,B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichloropropene, trans-1,3-	µg/L	0.4 ^{p,B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Diisopropyl Ether	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dioxane, 1,4-	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethanol	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethyl Ether	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethyl Tert Butyl Ether	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethylbenzene	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

See last page for notes.

Table 12
Summary of Analytical Results in Groundwater
Phase II (2009) and Remediation Investigation (2010-2011)
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Sample Location			B/MW-10	B/MW-11	B/MW-12	B/MW-13	B/MW-14	B/MW-22		B/MW-23			B/MW-25		B/MW-26	B/MW-27		B/MW-28D	WSW	TP-RB	
Sample Date			6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	5-Jan-11	20-Apr-11	7-Jan-11	21-Apr-11	21-Apr-11	4-Jan-11	20-Apr-11	22-Feb-11	22-Feb-11	22-Feb-11	22-Feb-11	7-Dec-10	26-Oct-10	
Sample ID			BA-MW10-W	BA-MW11-W	BA-MW12-W	BA-MW13-W*	BA-MW14-W	BA-MW22-W	BA-MW22-R2-W	BA-MW23-W	BA-MW23-R2-W	BA-MW23-R2-W/D	BA-MW25-W	BA-MW25-R2-W	BA-MW26-W	BA-MW27-W	BA-MW27-W/D	BA-MW28D-W	BA-WSW-W	BA-TP-RB-W	
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	
Laboratory Work Order			480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-4050-1	480-548-1	480-4050-1	480-4050-1	480-548-1	480-4050-1	480-1891-1	480-1891-1	480-1891-1	480-1891-1	RTL0627	RTJ1956	
Laboratory Sample ID			480-689-1	480-633-7	480-689-3	480-689-4	480-689-2	480-633-3	480-4050-3	480-689-6	480-4050-11	480-4050-12	480-548-2	480-4050-6	480-1891-1	480-1891-2	480-1891-4	480-1891-3	RTL0627-01	RTJ1956-13	
Sample Type	Units	TOGS										Field Duplicate					Field Duplicate			Material Rinse Blank	
Volatile Organic Compounds (cont'd)																					
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Hexachlorobutadiene	µg/L	0.5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hexanone, 2-	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Iodomethane	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	-	1.0 U	-	-	1.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
Isopropylbenzene	µg/L	5 ^B	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	1.0 U	1.0 U	
Methyl Acetate	µg/L	n/v	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	1.0 U	1.0 U	
Methyl Ethyl Ketone (MEK)	µg/L	50 ^A	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Methyl tert-butyl ether (MTBE)	µg/L	10 ^A	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	1.0 U	1.0 U	
Methylcyclohexane	µg/L	n/v	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	1.0 U	1.0 U	
Methylene Chloride (Dichloromethane)	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	3.1 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Naphthalene	µg/L	10 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phenylbutane, 2- (sec-Butylbenzene)	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Propylbenzene, n-	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Styrene	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tert Amyl Methyl Ether	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tert-Butyl Alcohol	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethane, 1,1,1,2-	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	-	1.0 U	-	-	1.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
Tetrachloroethane, 1,1,2,2-	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethylene (PCE)	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrahydrofuran	µg/L	50 ^A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Toluene	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichlorobenzene, 1,2,3-	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichlorobenzene, 1,2,4-	µg/L	5 ^B	-	-	-	-	-	-	1.0 U	-	1.0 U	1.0 U	-	1.0 U	-	-	-	-	1.0 U	1.0 U	
Trichlorobenzene, 1,3,5-	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichloroethane, 1,1,1-	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	290 ^B	1.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethane, 1,1,2-	µg/L	1 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethylene (TCE)	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	2600 ^B	2.9	3.5	29 ^B	12 ^B	1.0 U	2.8	3.0	1.0 U	1.0 U	1.0 U	
Trichlorofluoromethane (Freon 11)	µg/L	5 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloropropane, 1,2,3-	µg/L	0.04 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	-	1.0 U	-	-	1.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	-	-	
Trimethylbenzene, 1,2,4-	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trimethylbenzene, 1,3,5-	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vinyl Acetate	µg/L	n/v	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	-	5.0 U	-	-	5.0 U	-	5.0 U	5.0 U	5.0 U	5.0 U	-	-	
Vinyl chloride	µg/L	2 ^B	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylene, m & p-	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Xylene, o-	µg/L	5 ^B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Xylenes, Total	µg/L	5 ^B	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Total VOC	µg/L	n/v	ND	ND	ND	49.1	ND	ND	ND	3039.7	2.9	3.5	37.2	12	ND	6.6	6.6	1	ND	ND	

See last page for notes.

Table 12
Summary of Analytical Results in Groundwater
Phase II (2009) and Remediation Investigation (2010-2011)
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Sample Location			Trip Blank							
Sample Date			8-Dec-09	11-Dec-09	7-Dec-10	4-Jan-11	5-Jan-11	6-Jan-11	22-Feb-11	20-Apr-11
Sample ID			TRIP BLANK	TRIP BLANK	BA-TB	BA-TB010411-W	BA-TB010511-W	BA-TB010611-W	BA-TB-022211-W	BA-TB-042011-W
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			SPECTRUM	SPECTRUM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			SB05470	SB05538	RTL0627	480-548-1	480-548-1	480-548-1	480-1891-1	480-4050-1
Laboratory Sample ID			SB05470-10	SB05538-05	RTL0627-04	480-548-1	480-633-1	480-689-8	480-1891-5	480-4050-1
Sample Type	Units	TOGS	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Volatile Organic Compounds										
Acetone	µg/L	50 ^A	4.6 U	4.6 U	10 U	10 U	10 U	10 U	10 U	10 U
Acrylonitrile	µg/L	5 ^{..B}	0.5 U	0.5 U	-	5.0 U	5.0 U	5.0 U	5.0 U	-
Benzene	µg/L	1 ^B	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	µg/L	5 ^{..B}	0.5 U	0.5 U	-	-	-	-	-	-
Bromodichloromethane	µg/L	50 ^A	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform (tribromomethane)	µg/L	50 ^A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5 ^{..B}	1.2 U	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Butylbenzene, n-	µg/L	5 ^{..B}	0.8 U	0.8 U	-	-	-	-	-	-
Butylbenzene, tert-	µg/L	5 ^{..B}	0.5 U	0.5 U	-	-	-	-	-	-
Carbon Disulfide	µg/L	60 ^A	0.9 U	0.9 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5 ^B	0.8 U	0.8 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Fluorocarbon (Freon 113)	µg/L	5 ^{..B}	1.0 U	1.0 U	1.0 U J	-	-	-	-	1.0 U
Chlorobenzene (Monochlorobenzene)	µg/L	5 ^{..B}	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobromomethane	µg/L	5 ^{..B}	1.0 U	1.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	-
Chloroethane (Ethyl Chloride)	µg/L	5 ^{..B}	1.1 U	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/L	7 ^B	0.8 U	0.8 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	5 ^{..B}	1.2	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorotoluene, 2-	µg/L	5 ^{..B}	0.7 U	0.7 U	-	-	-	-	-	-
Chlorotoluene, 4-	µg/L	5 ^{..B}	0.5 U	0.5 U	-	-	-	-	-	-
Cyclohexane	n/v	-	-	-	1.0 U	-	-	-	-	1.0 U
Cymene (p-Isopropyltoluene)	µg/L	5 ^{..B}	0.5 U	0.5 U	-	-	-	-	-	-
Dibromo-3-Chloropropane (DBCP), 1,2-	µg/L	0.04 ^B	1.7 U	1.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	50 ^A	0.4 U	0.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane (Methylene Bromide)	µg/L	5 ^{..B}	0.7 U	0.7 U	-	1.0 U	1.0 U	1.0 U	1.0 U	-
Dichlorobenzene, 1,2-	µg/L	3 ^B	0.4 U	0.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorobenzene, 1,3-	µg/L	3 ^B	0.5 U	0.5 U	1.0 U	-	-	-	-	1.0 U
Dichlorobenzene, 1,4-	µg/L	3 ^B	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorobutene, trans-1,4-	µg/L	n/v	2.8 U	2.8 U	-	5.0 U	5.0 U	5.0 U	5.0 U	-
Dichlorodifluoromethane	µg/L	5 ^{..B}	0.9 U	0.9 U	1.0 U	-	-	-	-	1.0 U
Dichloroethane, 1,1-	µg/L	5 ^{..B}	0.6 U	0.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethane, 1,2-	µg/L	0.6 ^B	0.6 U	0.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethylene, 1,1-	µg/L	5 ^{..B}	0.7 U	0.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethylene, cis-1,2-	µg/L	5 ^{..B}	0.6 U	0.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethylene, trans-1,2-	µg/L	5 ^{..B}	0.9 U	0.9 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropane, 1,2-	µg/L	1 ^B	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropane, 1,3-	µg/L	5 ^{..B}	0.7 U	0.7 U	-	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5 ^{..B}	0.6 U	0.6 U	-	-	-	-	-	-
Dichloropropene, 1,1-	µg/L	5 ^{..B}	0.8 U	0.8 U	-	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4 _p ^B	0.4 U	0.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropene, trans-1,3-	µg/L	0.4 _p ^B	0.4 U	0.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Diisopropyl Ether	µg/L	n/v	0.6 U	0.6 U	-	-	-	-	-	-
Dioxane, 1,4-	µg/L	n/v	20.0 U	20.0 U	-	-	-	-	-	-
Ethanol	µg/L	n/v	37.7 U	37.7 U	-	-	-	-	-	-
Ethyl Ether	µg/L	n/v	0.6 U	0.6 U	-	-	-	-	-	-
Ethyl Tert Butyl Ether	µg/L	n/v	0.5 U	0.5 U	-	-	-	-	-	-
Ethylbenzene	µg/L	5 ^{..B}	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 12
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Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Sample Location			Trip Blank							
Sample Date			8-Dec-09	11-Dec-09	7-Dec-10	4-Jan-11	5-Jan-11	6-Jan-11	22-Feb-11	20-Apr-11
Sample ID			TRIP BLANK	TRIP BLANK	BA-TB	BA-TB010411-W	BA-TB010511-W	BA-TB010611-W	BA-TB-022211-W	BA-TB-042011-W
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			SPECTRUM	SPECTRUM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			SB05470	SB05538	RTL0627	480-548-1	480-548-1	480-548-1	480-1891-1	480-4050-1
Laboratory Sample ID			SB05470-10	SB05538-05	RTL0627-04	480-548-1	480-633-1	480-689-8	480-1891-5	480-4050-1
Sample Type	Units	TOGS	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Volatile Organic Compounds (cont'd)										
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006 ^B	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	0.5 ^B	0.5 U	0.5 U	-	-	-	-	-	-
Hexanone, 2-	µg/L	50 ^A	2.7 U	2.7 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Iodomethane	µg/L	5 ^B	-	-	-	1.0 U	1.0 U	1.0 U	1.0 U	-
Isopropylbenzene	µg/L	5 ^B	0.5 U	0.5 U	1.0 U	-	-	-	-	1.0 U
Methyl Acetate	µg/L	n/v	-	-	1.0 U	-	-	-	-	1.0 U
Methyl Ethyl Ketone (MEK)	µg/L	50 ^A	4.1 U	4.1 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	1.1 U	1.1 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether (MTBE)	µg/L	10 ^A	0.8 U	0.8 U	1.0 U	-	-	-	-	1.0 U
Methylcyclohexane	µg/L	n/v	-	-	1.0 U	-	-	-	-	1.0 U
Methylene Chloride (Dichloromethane)	µg/L	5 ^B	0.6 U	0.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	10 ^B	1.0 U	1.0 U	-	-	-	-	-	-
Phenylbutane, 2- (sec-Butylbenzene)	µg/L	5 ^B	0.5 U	0.5 U	-	-	-	-	-	-
Propylbenzene, n-	µg/L	5 ^B	0.5 U	0.5 U	-	-	-	-	-	-
Styrene	µg/L	5 ^B	0.9 U	0.9 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tert Amyl Methyl Ether	µg/L	n/v	0.6 U	0.6 U	-	-	-	-	-	-
Tert-Butyl Alcohol	µg/L	n/v	9.6 U	9.6 U	-	-	-	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/L	5 ^B	0.5 U	0.5 U	-	1.0 U	1.0 U	1.0 U	1.0 U	-
Tetrachloroethane, 1,1,2,2-	µg/L	5 ^B	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethylene (PCE)	µg/L	5 ^B	0.7 U	0.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrahydrofuran	µg/L	50 ^A	2.4 U	2.4 U	-	-	-	-	-	-
Toluene	µg/L	5 ^B	0.8 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorobenzene, 1,2,3-	µg/L	5 ^B	0.6 U	0.6 U	-	-	-	-	-	-
Trichlorobenzene, 1,2,4-	µg/L	5 ^B	0.6 U	0.6 U	1.0 U	-	-	-	-	1.0 U
Trichlorobenzene, 1,3,5-	µg/L	5 ^B	0.5 U	0.5 U	-	-	-	-	-	-
Trichloroethane, 1,1,1-	µg/L	5 ^B	0.6 U	0.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethane, 1,1,2-	µg/L	1 ^B	0.7 U	0.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethylene (TCE)	µg/L	5 ^B	0.6 U	0.6 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (Freon 11)	µg/L	5 ^B	0.7 U	0.7 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloropropane, 1,2,3-	µg/L	0.04 ^B	0.9 U	0.9 U	-	1.0 U	1.0 U	1.0 U	1.0 U	-
Trimethylbenzene, 1,2,4-	µg/L	5 ^B	0.4 U	0.4 U	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	5 ^B	0.5 U	0.5 U	-	-	-	-	-	-
Vinyl Acetate	µg/L	n/v	-	-	-	5.0 U	5.0 U	5.0 U	5.0 U	-
Vinyl chloride	µg/L	2 ^B	0.9 U	0.9 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene, m & p-	µg/L	5 ^B	1.0 U	1.0 U	-	-	-	-	-	-
Xylene, o-	µg/L	5 ^B	0.5 U	0.5 U	-	-	-	-	-	-
Xylenes, Total	µg/L	5 ^B	-	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOC	µg/L	n/v	1.2	4.6	ND	ND	ND	ND	ND	ND

Notes:

- TOGS NYSDEC Technical and Operational Guideline Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guideline Values and Groundwater Effluent Limitations (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
- ^A TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
- ^B TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.

- The principal organic contaminant standard for groundwater of 5 µg/L (described elsewhere in the TOGS table) applies to this substance.
- ^p Applies to the sum of cis- and trans-1,3-dichloropropene.
- E Compound was over the calibration range.
- J Indicates estimated value.
- SPECTRUM Spectrum Analytical Inc., Agawam, MA
- TALAM Test America Laboratories Inc., Amherst, NY
- ND Not detected
- * Subsequent to receipt of laboratory report and the Data Usability Summary Report, reporting limits for the diluted sample BA-MW13-W were recalculated by the laboratory based on the practical quantitation limit.

Table 12
 Summary of Analytical Results in Groundwater
 Phase II (2009) and Remediation Investigation (2010-2011)
 Former Allegany Bitumens Belmont Asphalt Plant
 Amity, New York

Sample Location	Units	TOGS	B/MW-9		B/MW-10	B/MW-11	B/MW-12	B/MW-13	B/MW-14	B/MW-25	WSW	SS-RB	TP-RB
			5-Jan-11	5-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	4-Jan-11	7-Dec-10	25-Oct-10
Sample ID			BA-MW9-W	BA-MW9-W/D	BA-MW10-W	BA-MW11-W	BA-MW12-W	BA-MW13-W	BA-MW14-W	BA-MW25-W	BA-WSW-W	BA-SS-RB-W	BA-TP-RB-W
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	RTJ1956	RTJ1956
Laboratory Sample ID			480-548-5	480-548-6	480-689-1	480-633-7	480-689-3	480-689-4	480-689-2	480-548-2	RTL0627-01	RTJ1956-10	RTJ1956-13
Sample Type				Field Duplicate								Material Rinse Blank	Material Rinse Blank
Semi-Volatile Organic Compounds													
Acenaphthene	µg/L	20 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Acenaphthylene	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Acetophenone	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Anthracene	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Atrazine	µg/L	7.5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Benzaldehyde	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Benzo(a)anthracene	µg/L	0.002 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Benzo(a)pyrene	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Benzo(b)fluoranthene	µg/L	0.002 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Benzo(g,h,i)perylene	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Benzo(k)fluoranthene	µg/L	0.002 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Biphenyl, 1,1'- (Biphenyl)	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Bis(2-Chloroethoxy)methane	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Bis(2-Chloroethyl)ether	µg/L	1 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U J	4.8 U	5.0 U
Bromophenyl Phenyl Ether, 4-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Butyl Benzyl Phthalate	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Caprolactam	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Carbazole	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Chloro-3-methyl phenol, 4-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Chloroaniline, 4	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Chloronaphthalene, 2-	µg/L	10 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Chlorophenol, 2-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U J	4.8 U	5.0 U
Chlorophenyl Phenyl Ether, 4-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Chrysene	µg/L	0.002 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Cresol, o- (Methylphenol, 2-)	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Cresol, p- (Methylphenol, 4-)	µg/L	n/v	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
Dibenzo(a,h)anthracene	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Dibenzofuran	µg/L	n/v	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	5.7 U	4.8 U	5.0 U
Dichlorobenzidine, 3,3'-	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Dichlorophenol, 2,4-	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Diethyl Phthalate	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Dimethyl Phthalate	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Dimethylphenol, 2,4-	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Di-n-Butyl Phthalate	µg/L	50 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Dinitro-o-cresol, 4,6-	µg/L	n/v	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
Dinitrophenol, 2,4-	µg/L	10 ^A	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
Dinitrotoluene, 2,4-	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Dinitrotoluene, 2,6-	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Di-n-Octyl phthalate	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Fluoranthene	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Fluorene	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Hexachlorobenzene	µg/L	0.04 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Hexachlorobutadiene	µg/L	0.5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Hexachlorocyclopentadiene	µg/L	5 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U

See next page for notes.

Table 12
Summary of Analytical Results in Groundwater
Phase II (2009) and Remediation Investigation (2010-2011)
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Sample Location	Units	TOGS	B/MW-9		B/MW-10	B/MW-11	B/MW-12	B/MW-13	B/MW-14	B/MW-25	WSW	SS-RB	TP-RB
			5-Jan-11	5-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	6-Jan-11	4-Jan-11	7-Dec-10	25-Oct-10	26-Oct-10
Sample Date													
Sample ID			BA-MW9-W	BA-MW9-W/D	BA-MW10-W	BA-MW11-W	BA-MW12-W	BA-MW13-W	BA-MW14-W	BA-MW25-W	BA-WSW-W	BA-SS-RB-W	BA-TP-RB-W
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	RTL0627	RTJ1956	RTJ1956
Laboratory Sample ID			480-548-5	480-548-6	480-689-1	480-633-7	480-689-3	480-689-4	480-689-2	480-548-2	RTL0627-01	RTJ1956-10	RTJ1956-13
Sample Type				Field Duplicate								Material Rinse Blank	Material Rinse Blank
Semi-Volatile Organic Compounds (cont'd)													
Hexachloroethane	µg/L	5 ^{..B}	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Indeno(1,2,3-cd)pyrene	µg/L	0.002 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Isophorone	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Methylnaphthalene, 2-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Naphthalene	µg/L	10 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Nitroaniline, 2-	µg/L	5 ^{..B}	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
Nitroaniline, 3-	µg/L	5 ^{..B}	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
Nitroaniline, 4-	µg/L	5 ^{..B}	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
Nitrobenzene	µg/L	0.4 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Nitrophenol, 2-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Nitrophenol, 4-	µg/L	n/v	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
N-Nitrosodi-n-Propylamine	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
n-Nitrosodiphenylamine	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Pentachlorophenol	µg/L	1.0 ^B	10 U	10 U	10 U	10 U J	10 U	10 U	10 U	10 U	11 U	9.5 U	9.9 U
Phenanthrene	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Phenol	µg/L	1.0 ^B	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Pyrene	µg/L	50 ^A	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Trichlorophenol, 2,4,5-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U
Trichlorophenol, 2,4,6-	µg/L	n/v	5.0 U	5.0 U	5.0 U	5.0 U J	5.0 U	5.0 U	5.0 U	5.0 U	5.7 U	4.8 U	5.0 U

- Notes:**
- TOGS NYSDEC Technical and Operational Guideline Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guideline Values and Groundwater Effluent Limitations (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
 - ^A TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
 - ^B TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
 - 6.5^A** Concentration exceeds the indicated standard.
 - 15.2** Concentration was detected but did not exceed applicable standards.
 - 0.50 U** Laboratory estimated quantitation limit exceeded standard.
 - 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
 - n/v No standard/guideline value.
 - Parameter not analyzed / not available.
 - .. The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
 - J Indicates estimated value.
 - TALAM Test America Laboratories Inc., Amherst, NY

Table 12
Summary of Analytical Results in Groundwater
Phase II (2009) and Remediation Investigation (2010-2011)
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Sample Location	Units	TOGS	B/MW-9		B/MW-11	B/MW-25		WSW	SS-RB		TP-RB	
			5-Jan-11	5-Jan-11	6-Jan-11	4-Jan-11	5-Jan-11	7-Dec-10	25-Oct-10	25-Oct-10	26-Oct-10	26-Oct-10
Sample ID			BA-MW9-W	BA-MW9-W/D	BA-MW11-W	BA-MW25-W	BA-MW25-W	BA-WSW-W	BA-SS-RB-W	BA-SS-RB-W	BA-TP-RB-W	BA-TP-RB-W
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	RTL0627	RTJ1956	RTJ1956	RTJ1956	RTJ1956
Laboratory Sample ID			480-548-5	480-548-6	480-633-7	480-548-2	480-548-4	RTL0627-01	RTJ1956-10	RTJ1956-10RE1	RTJ1956-13	RTJ1956-13RE1
Sample Type				Field Duplicate					Material Rinse Blank	Material Rinse Blank	Material Rinse Blank	Material Rinse Blank
Metals												
Aluminum	mg/L	n/v	0.20 U	0.20 U	0.20 U	-	2.2	0.200 U	0.057 J	-	0.063 J	-
Antimony	mg/L	0.003 ^B	0.020 U	0.020 U	0.020 U	-	0.020 U	0.0200 U	0.0200 U	-	0.0200 U	-
Arsenic	mg/L	0.025 ^B	0.010 U	0.010 U	0.010 U	-	0.010 U	0.188 ^B	0.0100 U	-	0.0100 U	-
Barium	mg/L	1 ^B	0.040	0.039	0.045	-	0.030	0.694	0.0020 U	-	0.0020 U	-
Beryllium	mg/L	0.003 ^A	0.0020 U	0.0020 U	0.0020 U	-	0.0020 U	0.0020 U	0.0020 U	-	0.0020 U	-
Cadmium	mg/L	0.005 ^B	0.0010 U	0.0010 U	0.0010 U	-	0.0010 U	0.0008 J	0.0010 U	-	0.0010 U	-
Calcium	mg/L	n/v	47.8	46.8	50.0	-	11.8	51.8 B	0.2 J	-	0.4 J	-
Chromium (Total)	mg/L	0.05 ^B	0.0040 U	0.0040 U	0.0040 U	-	0.0040 U	0.0036 J	0.0009 J	-	0.0040 U	-
Cobalt	mg/L	n/v	0.0040 U	0.0040 U	0.0040 U	-	0.0040 U	0.0006 J	0.0040 U	-	0.0040 U	-
Copper	mg/L	0.2 ^B	0.010 U	0.010 U	0.010 U	-	0.010 U	0.0026 J	0.0100 U	-	0.0100 U	-
Iron	mg/L	0.3 ^B	0.050 U	0.050 U	0.078	-	1.5 ^B	3.99 ^B	0.050 U	-	0.042 J	-
Lead	mg/L	0.025 ^B	0.0050 U	0.0050 U	0.0050 U	-	0.0050 U	0.0048 J	0.0050 U	-	0.0050 U	-
Magnesium	mg/L	35 ^A	8.5	8.5	12.1	-	2.8	15.6	0.200 U	-	0.095 J	-
Manganese	mg/L	0.3 ^B	0.0055	0.0046	2.9 ^B	-	0.056	0.119 B	0.0024 J	-	0.0018 U	-
Mercury	mg/L	0.0007 ^B	0.00020 U	0.00020 U	0.00020 U	-	0.00020 U	0.0002 U	0.0002 U	-	0.0002 U	-
Nickel	mg/L	0.1 ^B	0.010 U	0.010 U	0.010 U	-	0.010 U	0.0032 J	0.0100 U	-	0.0100 U	-
Potassium	mg/L	n/v	3.0	2.9	2.7	-	5.1	1.48	0.500 U	-	0.500 U	-
Selenium	mg/L	0.01 ^B	0.015 U	0.015 U	0.015 U	-	0.015 U	0.0150 U	0.0150 U	-	0.0150 U	-
Silver	mg/L	0.05 ^B	0.0030 U	0.0030 U	0.0030 U	-	0.0030 U	0.0030 U	0.0030 U	-	0.0030 U	-
Sodium	mg/L	20 ^B	4.7	4.6	16.5	-	2.3	129 ^B	1.0 U	-	1.0 U	-
Thallium	mg/L	0.0005 ^A	0.020 U	0.020 U	0.020 U	-	0.020 U	0.0200 U	0.0200 U	-	0.0200 U	-
Vanadium	mg/L	n/v	0.0050 U	0.0050 U	0.014	-	0.0050 U	0.0050 U	0.0050 U	-	0.0050 U	-
Zinc	mg/L	2 ^A	0.010 U	0.010 U	0.010 U	-	0.010 U	0.999	0.0020 J	-	0.0100 U	-
Pesticides												
Aldrin	µg/L	n/v	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
BHC, alpha-	µg/L	0.01 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
BHC, beta-	µg/L	0.04 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
BHC, delta-	µg/L	0.04 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Camphechlor (Toxaphene)	µg/L	0.06 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U J	0.49 U J	-	0.50 U J	-
Chlordane (Total)	µg/L	0.05 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	-	0.49 U J	-	0.50 U J	-
Chlordane, alpha-	µg/L	n/v	-	-	-	-	-	0.050 U J	0.049 U J	-	0.050 U J	-
Chlordane, gamma-	µg/L	n/v	-	-	-	-	-	0.050 U J	0.049 U J	-	0.050 U J	-
DDD (p,p'-DDD)	µg/L	0.3 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
DDE (p,p'-DDE)	µg/L	0.2 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
DDT (p,p'-DDT)	µg/L	0.2 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Dieldrin	µg/L	0.004 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Endosulfan I	µg/L	n/v	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Endosulfan II	µg/L	n/v	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Endosulfan Sulfate	µg/L	n/v	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Endrin	µg/L	n/v	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Endrin Aldehyde	µg/L	5 ^{-B}	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Endrin Ketone	µg/L	5 ^{-B}	-	-	-	-	-	0.050 U J	0.049 U J	-	0.050 U J	-
Heptachlor	µg/L	0.04 ^{AB}	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Heptachlor Epoxide	µg/L	0.03 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Lindane (Hexachlorocyclohexane, gamma)	µg/L	0.05 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-
Methoxychlor (4,4'-Methoxychlor)	µg/L	35 ^B	0.050 U	0.050 U	0.050 U	0.050 U	-	0.050 U J	0.049 U J	-	0.050 U J	-

See next page for notes.

Table 12
Summary of Analytical Results in Groundwater
Phase II (2009) and Remediation Investigation (2010-2011)
Former Allegany Bitumens Belmont Asphalt Plant
Amity, New York

Sample Location	Units	TOGS	B/MW-9		B/MW-11	B/MW-25		WSW	SS-RB		TP-RB	
			5-Jan-11	5-Jan-11	6-Jan-11	4-Jan-11	5-Jan-11	7-Dec-10	25-Oct-10	25-Oct-10	26-Oct-10	26-Oct-10
Sample Date												
Sample ID			BA-MW9-W	BA-MW9-W/D	BA-MW11-W	BA-MW25-W	BA-MW25-W	BA-WSW-W	BA-SS-RB-W	BA-SS-RB-W	BA-TP-RB-W	BA-TP-RB-W
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM	TALAM
Laboratory Work Order			480-548-1	480-548-1	480-548-1	480-548-1	480-548-1	RTL0627	RTJ1956	RTJ1956	RTJ1956	RTJ1956
Laboratory Sample ID			480-548-5	480-548-6	480-633-7	480-548-2	480-548-4	RTL0627-01	RTJ1956-10	RTJ1956-10RE1	RTJ1956-13	RTJ1956-13RE1
Sample Type				Field Duplicate					Material Rinse Blank	Material Rinse Blank	Material Rinse Blank	Material Rinse Blank
Polychlorinated Biphenyls												
Aroclor 1016	µg/L	0.09 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U J	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1221	µg/L	0.09 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1232	µg/L	0.09 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1242	µg/L	0.09 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1248	µg/L	0.09 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1254	µg/L	0.09 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1260	µg/L	0.09 ^B	0.50 U	0.50 U	0.50 U	0.50 U	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1262	µg/L	n/v	-	-	-	-	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J
Aroclor 1268	µg/L	n/v	-	-	-	-	-	0.50 U	0.49 U	0.48 U J	0.50 U	0.50 U J

Notes:

- TOGS NYSDEC Technical and Operational Guideline Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guideline Values and Groundwater Effluent Limitations (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
- ^A TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
- ^B TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
- 6.5^A** Concentration exceeds the indicated standard.
- 15.2** Concentration was detected but did not exceed applicable standards.
- 0.50 U** Laboratory estimated quantitation limit exceeded standard.
- 0.03 U The analyte was not detected above the laboratory estimated quantitation limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- The standard for Iron and Manganese is 500 ug/L, which applies to the sum of these substances. As individual standards, the standard is 300 ug/L.
- The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
- B Indicates analyte was found in associated blank, as well as in the sample.
- J Indicates estimated value.
- TALAM Test America Laboratories Inc., Amherst, NY

Table 13
Human Exposure Assessment Summary
Former Allegany Bitumens Belmont Asphalt Plant Remedial Investigation
5392 State Route 19
Amity, NY

Environmental Media & Exposure Route	Human Exposure Assessment
Direct contact with surface soils (and incidental ingestion)	Surface soil was not demonstrated to be contaminated, therefore contact with it would not provide an exposure route to contamination.
Direct contact with subsurface soils (and incidental ingestion)	People can come into contact with contaminated subsurface soil if they complete ground-intrusive work.
Ingestion of groundwater	People can come into contact with contaminated groundwater if shallow private water supply wells are installed on the property. The deep water supply well on the property is not being used now and in the past was not used for drinking water supply.
Direct contact with groundwater	People can come into contact with shallow groundwater contamination if they complete ground-intrusive work
Inhalation of air (exposure related to soil vapor intrusion)	It is possible that people may come into contact with contaminated air if they occupy site buildings. However, a soil vapor intrusion investigation has not been completed as the site buildings are not currently being used and plans for their demolition are being initiated.

APPENDICES

Appendix A

Test Pit Logs



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-1 Inspected By: S. Reynolds-Smith Weather/Temp: Sun, 60s °F
 Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster
 Date: 10/26/10 Start/Stop Time: 11:05/12:45 Agency Rep: W. Murray (DEC)

Comments:

- No Rock Encountered.
 - Rock Encountered At ___ Ft.
 - No Ground Water Encountered.
 - Ground Water Encountered At ~7 Ft.
- _____ Fill % _____ MSW %
 _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-1.4	Asphalt.				
1.4-2.5	Coarse grained gravel with some silt (apparently basal material of asphalt).	1.7	1.7	0.4	Sample 1.4-1.8 ft BGS (BA-TP1-S), which is apparently the gravel base material for the asphalt.
2.5-4	Brown clayey silt with some coarse grained gravel, possibly native, moist.	0.8	0.8	0.5	Sample 2.5-3 ft BGS (BA-TP1-S2), which is the possible top of native.
4-6	Yellowish brown clayey silt with little coarse grained gravel, native, moist-wet.	0.8	0.8	0.5	
6-7	Brown to yellowish brown fine grained sand, trace coarse grained gravel, moist-wet.	0.9	0.9	0.6	
	Wet at ~7 ft BGS.				
	Bottom of excavation at top of water.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No:	TP-2	Inspected By:	S. Reynolds-Smith	Weather/Temp:	Clouds, 70s °F
Equipment Used:	Kubota KX121-3 excavator	Contractor:	TREC Environmental, Inc.	Operator:	S. Stockmaster
Date:	10/26/10	Start/Stop Time:	13:01/13:59	Agency Rep:	W. Murray (DEC)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 10 Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-5	Brown fine grained sand, trace coarse grained gravel, dry-moist.	0.7	0.7	0.6	
5-7	Brown coarse grained gravel, dry-moist.	0.7	0.7	0.6	
7-10	Brown fine grained sand and coarse grained gravel, moist.	0.6	0.6	0.6	Sample 9.5-10 ft BGS (BA-TP2-S) at deepest reach of excavator.
	Wet at 10 ft BGS.				
	Bottom of excavation at top of water.				
	Test pit excavated in aggregate stockpile area, test pit did not appear to reach through aggregate material into native material.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-3 Inspected By: S. Reynolds-Smith Weather/Temp: Overcast, 70s °F
 Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster
 Date: 10/26 /10 Start/Stop Time: 14:10/15:10 Agency Rep: W. Murray (DEC)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-1	Brown fine grained sand.	0.6	0.6	0.6	
1-6	Brown very coarse grained gravel and small cobbles, angular.	0.6	0.6	0.6	
6-8	Brown to yellowish brown silty clay and very coarse grained gravel to small cobbles, native, moist.	0.6	0.6	0.6	Sample 6-7 ft BGS (BA-SS3-S) as this is apparently the top of native.
8-10	Brown clayey silt and coarse to very coarse grained gravel, moist.	0.6	0.6	0.6	Sample 10-10.5 ft BGS (BA-TP3-S). Unable to target non-native fill because of coarse grain size, so sample deepest reach.
	Bottom of excavation at deepest reach of excavator.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-4 Inspected By: S. Reynolds-Smith Weather/Temp: Sun, 70s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/26/10 Start/Stop Time: 15:25/16:30 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-5	Brown silt with some coarse grained gravel, asphalt pieces at 2 ft BGS.	0.6	0.6	0.6	
2	Asphalt pieces at 2 ft BGS.	1.1	1.1	0.6	
5-6	Brown fine to medium grained sand, dry.	0.6	0.6	0.6	
6-8	Brown fine to medium grained sand and coarse grained gravel, moist.	0.6	0.6	0.6	
8-9.5	Brown silt, moist-wet.	0.7	0.7	0.6	Sample 9-9.5 ft BGS (BA-TP4-S). Did not sample shallow fill as this material was sampled as a surface soil sample. Sampled at deepest reach of excavator.
	Bottom of excavation at deepest reach of excavator.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-5 Inspected By: S. Reynolds-Smith Weather/Temp: Sun, 50s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/27/10 Start/Stop Time: 08:18/09:13 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
 - Rock Encountered At ___ Ft.
 - No Ground Water Encountered.
 - Ground Water Encountered At 4 Ft.
- _____ Fill % _____ MSW %
 _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-0.4	Asphalt.				
0.4-1	Gravel (asphalt subbase).				
1-1.4	Brown coarse grained gravel and silt.	0	0	0	
1.4-2.5	Brown silty clay, few coarse grained gravel, moist.	0	0	0	Sample 1.4-1.6 ft BGS (BA-SS5-S) as apparent top of native.
2.5-3.5	Brown silt and fine to coarse grained gravel, moist.	0	0	0	
3.5-4	Brown coarse grained gravel/small cobbles, few silt, moist-wet.	0	0	0	Sample 3.5-4 ft BGS (BA-TP5-S) as deepest interval.
	Wet at 4'.				
	Bottom of excavation at top of water.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-6 Inspected By: S. Reynolds-Smith Weather/Temp: Sun, 60-70s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/27/10 Start/Stop Time: 14:00/14:55 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
 - Rock Encountered At ___ Ft.
 - No Ground Water Encountered.
 - Ground Water Encountered At 3 Ft.
- _____ Fill % _____ MSW %
 _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
10-6 ft AGS	Brown silt, some medium to coarse gravel, dry-moist.	0	0	0	Ground surface assumed to be at the base of the berm. Measurements taken above ground surface (AGS) and below ground surface (BGS).
6-0 ft AGS	Yellowish brown silt and coarse grained gravel.	0	0	0	No analytical sample collected at this location as no impacts were noted.
0-3 ft BGS	Brown fine to coarse grained gravel, some coarse to medium sand, moist.	0	0	0	
	Wet at 3 ft BGs and sidewalls caving in significantly.	0	0	0	
	Bottom of excavation at top of water.	0	0	0	



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-7 Inspected By: S. Reynolds-Smith Weather/Temp: Sun, 60s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/27/10 Start/Stop Time: 12:20/13:40 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
 - Rock Encountered At ___ Ft.
 - No Ground Water Encountered.
 - Ground Water Encountered At 2.5 Ft.
- _____ Fill % _____ MSW %
 _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
7.5-6 ft AGS	Berm is 7.5 ft high (that is, ft AGS). The peak of the berm (top 1.5 feet of the berm) was topsoil. Topsoil also formed a thin discontinuous layer up to 2 inches thick along slopes of berm.				Ground surface assumed to be at the base of the berm. Measurements taken above ground surface (AGS) and below ground surface (BGS).
6-0 ft AGS	Hard asphalt.	0	0	0	
0-0.5 ft BGS	Gray silt and fine to coarse grained gravel, slight odor.	0	0	0	
0.5-2.5 ft BGS	Brown clayey silt and coarse grained gravel, slight odor, moist-wet.	0	0	0	Sample 0.5-2.5 ft BGS (BA-TP7-S) of apparently impacted soils.
2.5-3 ft BGS	Gray coarse grained gravel to small cobbles, some fine grained gravel and silt, wet.	0	0	0	Sample 2.5-3 ft BGS (BA-TP7-S2) apparently below impacts.
	Bottom of excavation at top of water.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-8 Inspected By: S. Reynolds-Smith Weather/Temp: Sun, 50s °F
 Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster
 Date: 10/27/10 Start/Stop Time: 09:30/12:00 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-2	Brown loose fine grained sand/silt, dry-moist.				
2-4	Remnants of a fire and other debris, including glass, asphalt pieces, pieces of Styrofoam, steel cable, burned beer cans, and ash intermixed with soils.	0	0	0	Sample and duplicate sample at 2-4 ft BGS (BA-TP8-S and BA-TP8-S/D) of apparently impacted materials.
4-4.5	Coarse grained gravel covered in black non-solidified asphalt (similar to cold patch asphalt), flexible steel pipe (possibly a vehicle exhaust pipe).	0	0	0	
4.5-5	Brown silt through coarse grained gravel, moist.	0	0	0	Sample 4.5-5 ft BGS (BA-TP8-S2) of materials directly under asphalt materials.
5-6	Brown clayey silt, compact, dry-moist.	0	0	0	Sample 5-5.5ft BGs (BA-TP8-S3) of apparently native non-impacted soils.
6-7.5	Silt and medium grained gravel, looser than materials directly above, dry-moist.	0	0	0	
7.5-8	Gray silt with some medium to coarse grained gravel (till), moist-dry.	0	0	0	
8-	Brown silt, little medium to coarse grained gravel, loose, dry.	0	0	0	
	Bottom of excavation in native materials.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-9 Inspected By: S. Reynolds-Smith Weather/Temp: Sun, 70s °F
 Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster
 Date: 10/27/10 Start/Stop Time: 15:05/16:00 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
10-0 ft AGS	Brown fine to coarse grained sand and fine grained gravel. Occasional pockets of fine to medium grained gravel. Berm appears to be aggregate stockpile.	0	0	0	Ground surface assumed to be at the base of the berm. Measurements taken above ground surface (AGS) and below ground surface (BGS).
0-3 ft BGS	Brown fine to coarse grained sand and fine grained gravel with occasional asphalt pieces (less than 1-inch) and black powder.	0	0	0	Sample 0-3 ft BGS (BA-TP9-S) at deepest interval reached.
	Bottom of excavation at 3 ft BGS. Unable to excavate deeper due to caving of berm.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No:	TP-10	Inspected By:	S. Reynolds-Smith	Weather/Temp:	Sun, 70s °F
Equipment Used:	Kubota KX121-3 excavator	Contractor:	TREC Environmental, Inc.	Operator:	S. Stockmaster
Date:	10/27/10	Start/Stop Time:	16:00/16:50	Agency Rep:	W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-4.5	Brown medium to coarse grained sand and fine grained gravel, dry-moist. At ~1.5-2.5 ft BGS on north sidewall, hard asphalt.	0	0	0	
4.5-6.5	Brown coarse grained sand and medium to coarse grained gravel, some pieces of asphalt with diameters ranging from 0.5 inches up to 1.5 ft x 1 ft x 0.5 ft.	0	0	0	
6.5	Hard surface, possibly asphalt, unable to excavate deeper.				Sample 6-6.5 ft BGS (BA-TP10-S) at deepest interval reached.



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-11 Inspected By: S. Reynolds-Smith Weather/Temp: Mostly cloudy, windy, 50s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/28/10 Start/Stop Time: 10:17/11:19 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
5-0 ft AGS	Brown medium to coarse grained sand and fine grained gravel, dry. Some topsoil on eastern top side of berm.	0.3	0.1	0.1	Ground surface assumed to be at the base of the berm. Measurements taken above ground surface (AGS) and below ground surface (BGS).
0-5.5 ft BGS	As above with chunks of asphalt (up to 1' x 1' x 0.5') intermixed. At 5-5.5 ft BGS, some black powdery material intermixed with soils.	0.5	0.5	0.3	Sample 4-5 ft BGS (BA-TP11-S) of asphalt impacted materials.
5.5-6.5 ft BGS	Brown fine to coarse grained sand and fine to very coarse gravel, appear to be out of asphalt impacts, dry.	0.5	0.5	0.5	Sample 5-5.5 ft BGS (BW-TP11-S2) below apparent asphalt impacted materials.
	Unable to go deeper than 6.5 ft BGS.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12 Inspected By: S. Reynolds-Smith Weather/Temp: Overcast, windy, 50s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/28/10 Start/Stop Time: 13:26/14:15 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
5 ft AGS- 2 ft BGS	Brown fine to medium grained gravel with some fine to medium grained gravel, asphalt chunks.	0.5	0.5	0.5	Ground surface assumed to be at the base of the berm. Measurements taken above ground surface (AGS) and below ground surface (BGS).
2-4ft BGS	Brown fine grained gravel with some silt and medium grained gravel, odor of asphalt, less asphalt than above.	0.5	0.5	0.5	
4-6 ft BGS	Brown silt and fine grained gravel, debris (shoe, plastic shopping bag, sour cream container), smaller asphalt chunks and less of them than above.	0.5	0.5	0.5	Sample 4-5 ft BGS (BA-TP12-S) from interval with debris.
	Unable to excavate deeper than 6 ft BGS due to a combination of cave-in and hard asphalt layers.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-13 Inspected By: S. Reynolds-Smith Weather/Temp: Overcast, some rain, 40s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/29/10 Start/Stop Time: 08:30/09:30 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-0.6	Asphalt.				
0.6-1.6	Brown to yellowish brown fine grained sand/silt, dry-moist.	0.6	0.7	0.1	
1.6-4	Gray silty clay, moist.	0.6	0.6	0.1	Sample 2-2.5 ft BGS (BA-TP13-S) from native soil.
	Test pit excavated into native materials.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-14 Inspected By: S. Reynolds-Smith Weather/Temp: Overcast, some rain, 40s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/29/10 Start/Stop Time: 09:40/11:20 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-0.5	Asphalt paving on west end of test pit and potential spillage from asphalt tanks on east end of test pit.				
0.5-3	Brown coarse gravel and cobbles with some silt at west end of test pit. Brown coarse gravel/cobbles with oily looking solid chunks of asphalt at east end of test pit, odor.				Sample 3 ft BGS (BA-TP14-S and BA-TP14-S/D) from interval with high PID reading.
3-6	Gray silty clay, moist.				Sample 6 ft BGS (BA-TP14-S2) from native soils beneath elevated PID reading interval.
	Unable to excavate deeper due to space constraints (asphalt tanks to east and another structure to northwest).				
	PID READINGS				
2		64	64	0.1	
3		804	804	0.1	
5		6	6	0.1	
6		2	2	0.1	



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No:	TP-15	Inspected By:	S. Reynolds-Smith	Weather/Temp:	Overcast, 50s °F
Equipment Used:	Kubota KX121-3 excavator	Contractor:	TREC Environmental, Inc.	Operator:	S. Stockmaster
Date:	10/29/10	Start/Stop Time:	11:30/11:59	Agency Rep:	W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-4	Brown fine to coarse grained gravel and medium to coarse grained sand, asphalt chunks on eastern end of test pit, moist.	0.4	0.4	0.4	
4-4.5	Brown coarse gravel and cobbles little coarse sand and fine grained gravel, moist.	0.4	0.4	0.4	Sample 4-4.5 ft BGS (BA-TP15-S) from deepest interval excavated.
	Test pit excavated until apparently non-impacted materials reached.				
	Test pit located along south edge of equipment and extending 6 feet to east. Excavated to 2 ft BGS directly south of equipment and unable to go deeper due to encountering underground piping. Therefore excavate deeper to the southeast of equipment.				
	Cannot dig direct west of equipment because concrete pad extends 3 ft beyond equipment. There do not appear to be impacts that far away from equipment.				
	Cannot dig directly to east of eqpt because of overhead obstructions.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-16 Inspected By: S. Reynolds-Smith Weather/Temp: Partly cloudy, 50s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/29/10 Start/Stop Time: 12:20/13:30 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH		PID READINGS			
(ft. BGS*)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0-1	Asphalt – possibly paving to former gate in fence at north end of test pit.	0.5	0.5	0.5	No analytical sample collected.
1-3.5	Brown silt, moist.	0.5	0.5	0.5	
3.5-6	Brown sand and gravel, moist-dry	0.5	0.5	0.5	
6-8	Yellowish brown silt, moist-dry.	0.4	0.4	0.4	
8-9	Gray silty clay, moist.	0.4	0.4	0.4	
	Test pit excavated into native soils.				
	*Depths at north end of test pit.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-17 Inspected By: S. Reynolds-Smith Weather/Temp: Overcast, 40s-50s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/29/10 Start/Stop Time: 13:50/15:15 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH (ft. BGS*)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
0-5	Brown fine to medium grained sand, little fine grained gravel, trace coarse grained gravel, asphalt.	0.7	0.7	0.4	
5-6	Brown fine grained gravel and coarse grained sand, little coarse grained gravel, asphalt chunks, debris (plastic bags, metal, bricks, electrical panel) (at west end, metal objects found as shallow as 3.5 ft BGS).	0.6	0.6	0.4	Sample 3.5-4 ft BGS (BA-TP17-S) from west end of test pit near metal objects. Electrical panel was wrapped in plastic and left on the surface for future disposal.
6	Asphalt layer, very tarry and hard.	0.5	0.5	0.5	
	Unable to excavate deeper due to hard asphalt layer.				
	*Depths measured at east end of test pit.				



TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-18 Inspected By: S. Reynolds-Smith Weather/Temp: Mostly cloudy, 40s °F

Equipment Used: Kubota KX121-3 excavator Contractor: TREC Environmental, Inc. Operator: S. Stockmaster

Date: 10/29/10 Start/Stop Time: 15:25/16:00 Agency Rep: W. Murray (DEC) (Not present)

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- _____ Fill % _____ MSW %
- _____ C&D% _____ Native %(USCS)

LOCATION SKETCH:

See Figure

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		Max	Sust	Bkgd	
(ft. BGS)					
0-4	Brown coarse grained sand/fine grained gravel with chunks and large slabs of asphalt (up to 3' x 2' x 1.5').	0.5	0.5	0.5	
4-10	Brown fine to coarse grained sand and fine grained gravel, much less asphalt than above, debris (plastic bags, paper towels, cloths, wire, metal pipe, Gatorade bottle, three tires, etc).	0.5 1.1 0.5	0.5 1.1 0.5	0.5 0.5 0.5	Sample 9.5-10 ft BGS (BA-TP18-S) from deepest interval reached.
	Bottom of excavation at deepest reach of excavator.				

Appendix B

Monitoring Well and Boring Logs

Monitoring Well: B/MW-5

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 02-Dec-2010
Ground surface elevation: 1,367.57 ft AMSL
Top of casing elevation: 1,370.24 ft AMSL
Easting: 1292546.29
Northing: 814116.9

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m)	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface	1367.57 0.00						
0.60		TOPSOIL dark brown, silty with trace clay, cobble in macrocore shoe, moist	1366.97 0.60	1	MC	7.2" 15%	● 0	<p>Concrete seal with Stick up casing</p> <p>Bentonite Seal</p> <p>Sand Pack (#00N size)</p> <p>PVC Screen (0.010 slot)</p>	
4.50		coarse GRAVEL/ COBBLES brown, few fine sand, wet	1363.57 4.00 1363.07 4.50	2	MC	6" 13%	● 0		
10.30		CLAYEY SILT gray, wet	1358.17 9.40	3	MC	27" 56%	● 0		
12.00		SILTY CLAY gray, wet	1355.57 12.00	4	MC	48" 100%	● 0		
16.00		End of Borehole	1351.57 16.00						

Sand Pack Interval: 2.50 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.50 - 2.50 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

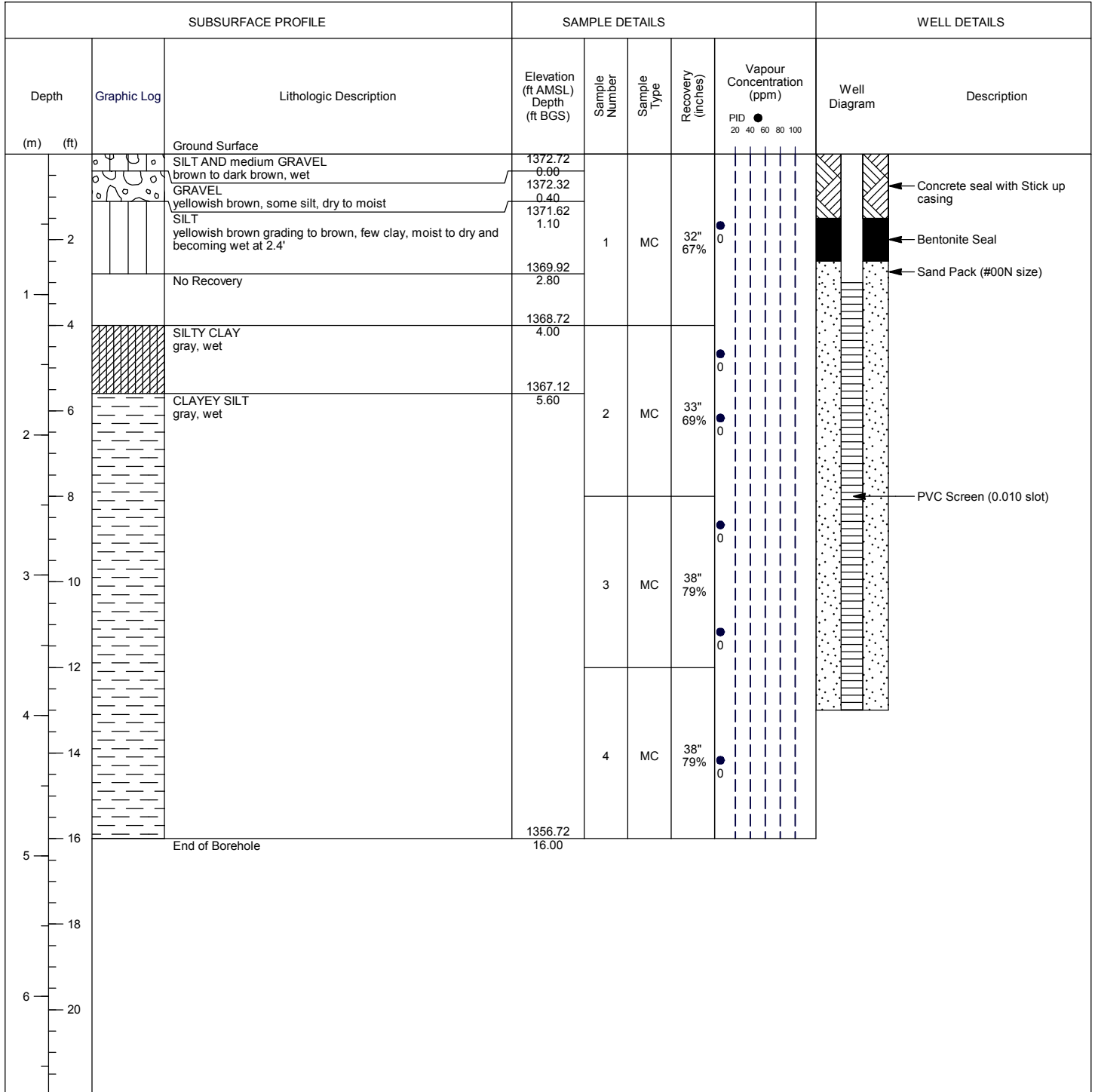
Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-6

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 01-Dec-2010
Ground surface elevation: 1,372.72 ft AMSL
Top of casing elevation: 1,375.40 ft AMSL
Easting: 1292746.16
Northing: 814075.47



Sand Pack Interval: 2.50 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.50 - 2.50 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

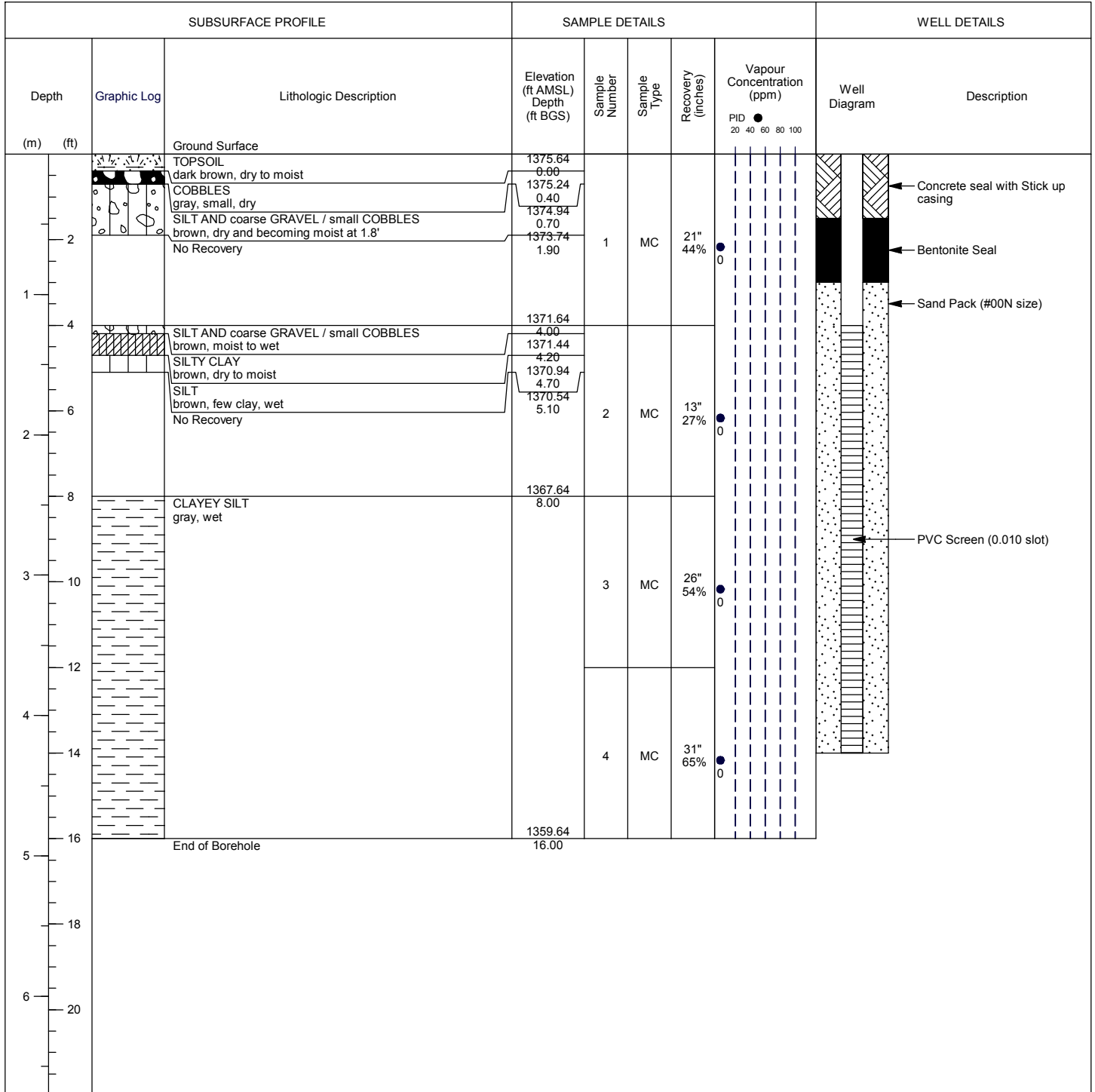
Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-7

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 02-Dec-2010
Ground surface elevation: 1,375.64 ft AMSL
Top of casing elevation: 1,378.68 ft AMSL
Easting: 1292676.22
Northing: 814165.19



Sand Pack Interval: 3.00 - 14.00 ft BGS
 Screen Interval: 4.00 - 14.00 ft BGS
 Well Seal Interval: 1.50 - 3.00 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-8

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 01-Dec-2010
Ground surface elevation: 1,365.91 ft AMSL
Top of casing elevation: 1,368.70 ft AMSL
Easting: 1292620.66
Northing: 814148.74

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m) (ft)	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface CLAYEY SILT gray, wet	1365.91 0.00						
2				1	MC	15" 31%	● 0		Concrete seal with Stick up casing
4									Bentonite Seal
6				2	MC	29" 60%	● 0		Sand Pack (#00N size)
8									
10				3	MC	36" 75%	● 0		PVC Screen (0.010 slot)
12		NO RECOVERY	1353.91 12.00						
14				4	MC	0" 0%			
16		End of Borehole	1349.91 16.00						
18									
20									

Sand Pack Interval: 2.50 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.40 - 2.50 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

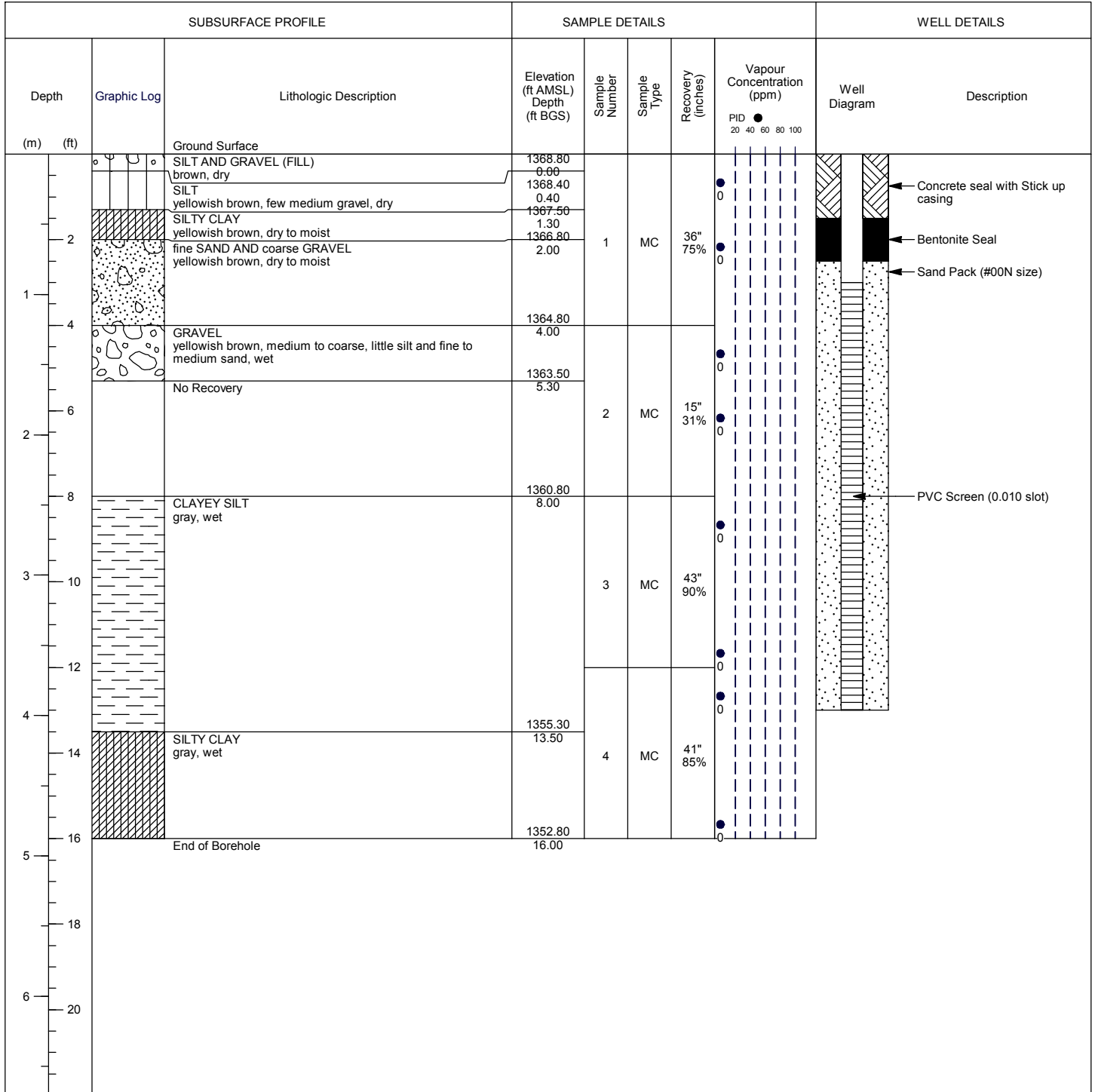
Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-9

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 30-Nov-2010
Ground surface elevation: 1,368.80 ft AMSL
Top of casing elevation: 1,371.68 ft AMSL
Easting: 1292901.29
Northing: 813988.81



Sand Pack Interval: 2.50 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.50 - 2.50 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-10

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 30-Nov-2010
Ground surface elevation: 1,370.90 ft AMSL
Top of casing elevation: 1,373.76 ft AMSL
Easting: 1292784.72
Northing: 814000.33

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m) (ft)	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface	1370.90						
	[Pattern: Dotted]	ASPHALT AND GRAVEL base	0.00						
	[Pattern: Dotted]	SAND yellowish brown, medium, few medium to coarse gravel, dry	1370.50 0.40						
2	[Pattern: Dotted]	coarse GRAVEL AND small COBBLES yellowish brown, few medium to fine gravel, dry and becoming moist at 2'	1369.30 1.60	1	MC	27.6" 58%	● 0	[Pattern: Dotted]	Concrete seal with Stick up casing
		No Recovery	1368.60 2.30					[Pattern: Dotted]	Bentonite Seal
4	[Pattern: Dotted]	coarse GRAVEL AND small COBBLES yellowish brown, little fine sand, few fine gravel, wet	1366.90 4.00					[Pattern: Dotted]	Sand Pack (#00N size)
		No Recovery	1365.40 5.50	2	MC	18" 38%	● 0	[Pattern: Dotted]	
8	[Pattern: Diagonal Lines]	SILTY CLAY brown, wet	1362.90 8.00					[Pattern: Diagonal Lines]	PVC Screen (0.010 slot)
	[Pattern: Horizontal Lines]	CLAYEY SILT grey, wet	1362.30 8.60					[Pattern: Horizontal Lines]	
		No Recovery	1361.30 9.60	3	MC	19.2" 32%	● 0	[Pattern: Horizontal Lines]	
13.00		End of Borehole	1357.90 13.00					[Pattern: Horizontal Lines]	

Sand Pack Interval: 2.40 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.50 - 2.40 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

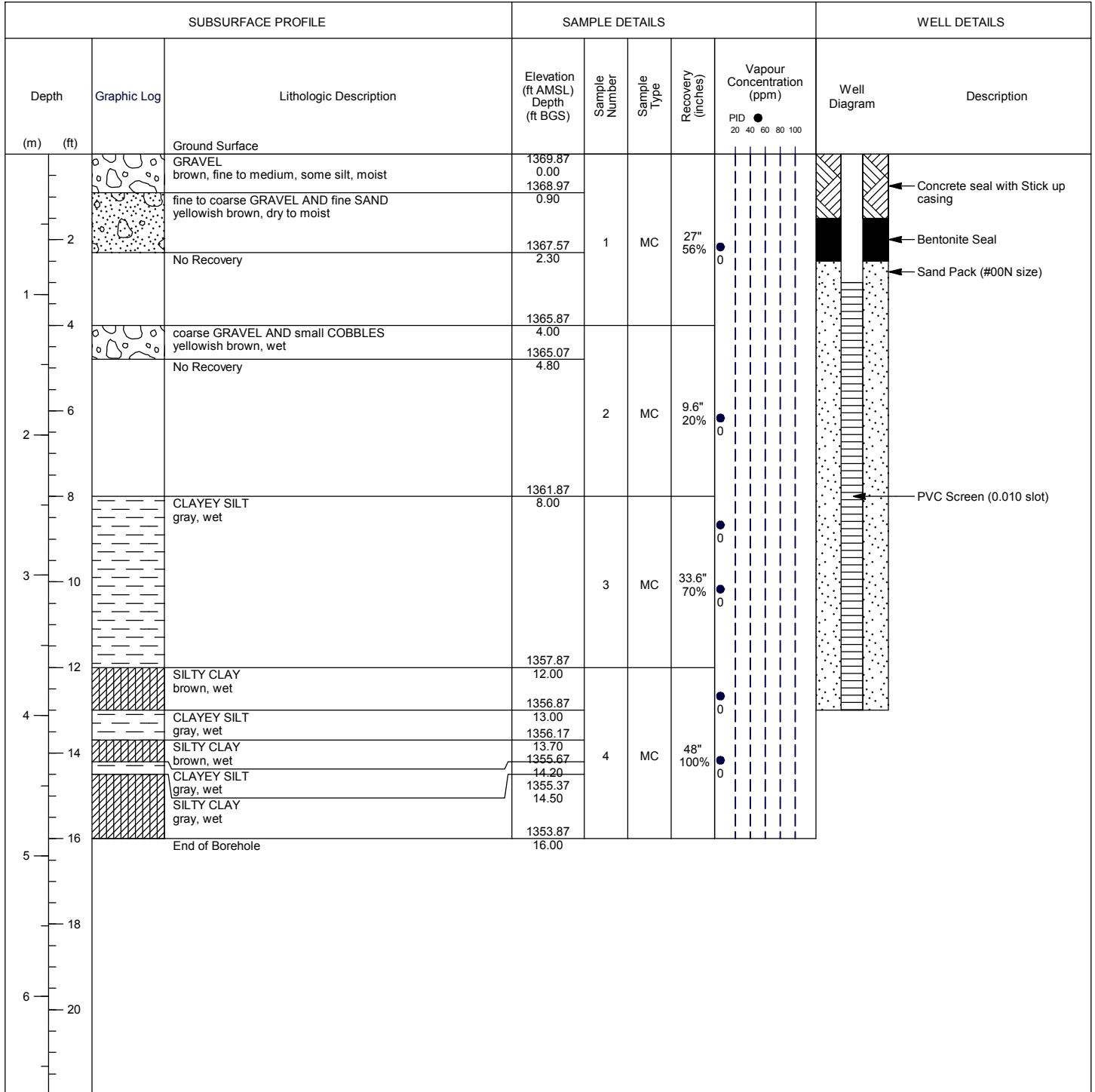
Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-11

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 30-Nov-2010
Ground surface elevation: 1,369.87 ft AMSL
Top of casing elevation: 1,372.39 ft AMSL
Easting: 1292790.71
Northing: 813908.64



Sand Pack Interval: 2.50 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.50 - 2.50 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

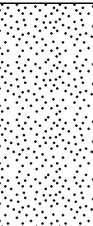

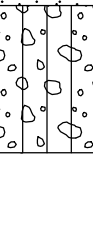
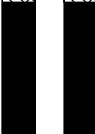
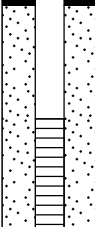


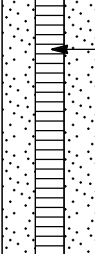

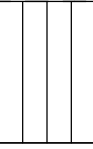
Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-12

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 29-Nov-2010
Ground surface elevation: 1,378.46 ft AMSL
Top of casing elevation: 1,381.50 ft AMSL
Easting: 1292595.82
Northing: 813823.14

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m) (ft)	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface	1378.46 0.00						
0 - 2		SAND brown, medium to coarse, few fine gravel, dry	1378.46 0.00	1	MC	38" 79%	● 0.2		Concrete seal with Stick up casing
1 - 4		SILT AND medium to coarse GRAVEL gray at 4' - 5.4' and yellowish brown at 5.4' - 6.6', dry to moist	1374.46 4.00	2	MC	30" 63%	● 0.1		Bentonite Seal
2 - 6		No Recovery	1371.86 6.60						Sand Pack (#00N size)
2 - 8		SAND brown, medium, few medium gravel, wet	1370.46 8.00						
3 - 9		SAND brown, fine to medium, trace medium gravel, wet	1369.36 9.10						
3 - 10		No Recovery	1368.66 9.80	3	MC	20" 42%	● 0.4		PVC Screen (0.010 slot)
4 - 12		CLAYEY SILT brown, wet	1366.46 12.00						
4 - 14		SILT gray, trace clay, wet	1364.96 13.50	4	MC	39" 81%	● 0.2		
5 - 16		End of Borehole	1362.46 16.00						

Sand Pack Interval: 4.00 - 16.00 ft BGS
 Screen Interval: 6.00 - 16.00 ft BGS
 Well Seal Interval: 1.60 - 4.00 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-13

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 29-Nov-2010
Ground surface elevation: 1,371.24 ft AMSL
Top of casing elevation: 1,374.00 ft AMSL
Easting: 1292840.77
Northing: 813509.36

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m) (ft)	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface	1371.24						
		GRAVEL brown, fine to coarse, some fine sand, dry	0.00						
		ASPHALT black, coarse sand to fine gravel pieces, dry	1.30						
2		SAND brown, fine to medium, few medium gravel, dry	1.60	1	MC	33" 69%	● 0.1		Concrete seal with Stick up casing
		GRAVEL dark gray, fine, trace silt, dry	2.00						
1		fine SAND AND SILT gray, trace clay, trace coarse gravel, dry to moist	2.20						
4		SILT brown, some coarse sand and fine gravel, dry to moist	4.00				● 0.1		Bentonite Seal
2		SILT brown, few fine gravel, wet	6.30	2	MC	27" 56%	● 0.1		Sand Pack (#00N size)
3		No Recovery	9.00				● 0.1		
10		No Recovery	9.00	3	MC	10.8" 23%	● 0.1		PVC Screen (0.010 slot)
12		CLAYEY SILT gray, wet, at 13.1' to 13.2' gray fine to medium sand	12.00				● 0		
14		No Recovery	15.00	4	MC	34.8" 73%	● 0		
16		No Recovery	15.00						
5		End of Borehole	16.00						

Sand Pack Interval: 3.80 - 16.00 ft BGS
 Screen Interval: 6.00 - 16.00 ft BGS
 Well Seal Interval: 2.00 - 3.80 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-14

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 30-Nov-2010
Ground surface elevation: 1,363.62 ft AMSL
Top of casing elevation: 1,366.54 ft AMSL
Easting: 1292987.42
Northing: 814026.5

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m)	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface	1363.62 0.00						
2		SILT AND fine to coarse GRAVEL brown, roots, dry	1361.92 1.70	1	MC	20.4" 43%	● 0		Concrete seal with Stick up casing
4		SILT brown, orange mottling, few medium gravel, dry	1359.62 4.00				● 0		Grout
6		CLAYEY SILT gray, moist	1358.22 5.40	2	MC	36" 75%	● 0		Bentonite Seal
8		SAND gray, fine, some medium angular gravel, moist to wet	1356.62 7.00				● 0		
10		fine SAND AND fine to coarse GRAVEL gray, moist to wet	1355.62 8.00	3	MC	17" 35%	● 0		Sand Pack (#00N size)
12		CLAYEY SILT gray, wet	1354.72 8.90				● 0		
14			1354.12 9.50	4	MC	33" 69%	● 0		PVC Screen (0.010 slot)
16			1351.62 12.00				● 0		
18				5	MC	48" 100%	● 0		
20		End of Borehole	1343.62 20.00						

Sand Pack Interval: 7.50 - 20.00 ft BGS
 Screen Interval: 10.00 - 20.00 ft BGS
 Well Seal Interval: 5.30 - 7.50 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-15

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 02-Dec-2010
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
(m) (ft)							PID ● 20 40 60 80 100
	Ground Surface						
	TOPSOIL	dark brown, silt with roots, moist	0.00				
	CLAYEY SILT	yellowish brown, some medium gravel, moist	0.90				
	SILT	dark brown, few clay, looks like topsoil, moist	1.30				
	SILTY CLAY	gray with orange mottling, dry to moist	1.40				
2		No Recovery	1.60	1	MC	21.6" 45%	● 0
1							
4	coarse GRAVEL / small COBBLES	brown, some silt and fine sand, wet	4.00				
6		No Recovery	5.80	2	MC	21.6" 45%	● 0
2							
8	CLAYEY SILT	gray, wet	8.00				
10				3	MC	27.6" 58%	● 0
3							
12		End of Borehole	12.00				
4							
14							
16							
5							
18							
6							
20							

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-16

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 03-Dec-2010
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth (m) (ft)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
		Ground Surface					
		TOPSOIL dark brown, silt, few medium gravel, grass and roots for top 0.2', moist	0.00				
		ASPHALT dark brown to black, dry	0.70 1.00				
2		SILT yellowish brown, with some coarse gravel, dry to moist	1.50	1	MC	34.8" 73%	0
		SILT yellowish brown, some orange mottling, few medium gravel, dry to moist	2.90				0
1		No Recovery	4.00				
4		SILTY CLAY yellowish brown to brown, few gravel, moist	5.30	2	MC	38.4" 80%	0
6		medium SAND & coarse GRAVEL / small COBBLES brown, moist to wet	6.10				13.4
2		SILTY CLAY brown grading to gray, moist	8.00				
3		SILTY CLAY gray, moist to becoming wet - coarse sand layer at 8.6' to 8.7'	10.40	3	MC	38.4" 80%	15.2
10		- coarse sand layer at 10.2' - 10.3'	11.20				40
		CLAYEY SILT gray, wet	12.00				
		No Recovery	12.70				
4		SAND brown, coarse, wet	13.70	4	MC	38.4" 80%	28.1
		SAND brown, fine, wet					12
14		SILT brown, few clay, wet	18.00	5	MC	24" 50%	4
5		No Recovery					
6		End of Borehole	20.00				

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-17

Project: Remedial Investigation	Drilling method: Macrocore
Client: Blades Holding Company Inc.	Date started/completed: 03-Dec-2010
Location: 5392 Rt 19, Amity, NY	Ground surface elevation: 1,374.42 ft AMSL
Number: 190500593.300	Top of casing elevation: n/a
Field investigator: S. Reynolds-Smith	Easting: 1292673.04
Contractor: Nothnagle Drilling	Northing: 814070.46

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
		Ground Surface	1374.42				
		SILT dark brown, few coarse gravel, dry to moist	0.00				
			1373.02				
2		CLAYEY SILT brown, dry to moist and becoming moist at 2.6'	1.40	1	MC	32.4"	68%
		SILT AND medium to coarse GRAVEL brown, dry to moist	1.90				
		No Recovery	2.70				
1							
4		fine to coarse GRAVEL brown, little fine to coarse sand, wet	1370.42	2	MC	36"	75%
		CLAYEY SILT brown at 4.6' - 5.6', gray at 5.6' - 7', wet	4.00				
			1369.82				
2			4.60				
		NO RECOVERY	1367.42				
			7.00				
3				3	MC	0"	0%
10							
12		End of Borehole	1362.42				
			12.00				
4							
14							
16							
5							
18							
20							
6							

Notes:
ft AMSL - feet above mean sea level
ft BGS - feet below ground surface
ft BTOC - feet below top of casing
ft AGS - feet above ground surface
ppm - parts per million
n/a - not available
MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-18

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 02-Dec-2010
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth (m) (ft)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
		Ground Surface					
		TOPSOIL	0.00				
		dark brown, silt with coarse gravel, dry	0.30				
		SILT brown, dry to moist	0.60				
2		SILT brown, with little medium gravel, dry to moist	0.90	1	MC	26.4"	
		SILT AND coarse GRAVEL / fine COBBLES brown, dry to moist and becoming wet at 8.6'				55%	● 0
1							
2							
				2	MC	21.6"	
						45%	● 0
3		SILT brown at 9.2' - 9.6' and grayish brown at 9.6' - 10.7', wet	9.20				● 0
				3	MC	32.4"	
						68%	● 0
		No Recovery	10.70				
4		End of Borehole	12.00				

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-19

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 03-Dec-2010
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
(m)	(ft)						PID ● 20 40 60 80 100
		Ground Surface					
		ASPHALT	0.00				
		GRAVEL asphalt subbase	0.10				
		dry	0.70				
2		GRAVEL brown, medium to coarse, some silt, dry		1	MC	34.8" 73%	● 0
1		CLAYEY SILT brown, moist and becoming wet at about 4'	2.30				
4							
6				2	MC	26.4" 55%	● 0
2							
8							
10		CLAYEY SILT gray, wet	9.00				● 0
3							
11.00		No Recovery	11.00	3	MC	33.6" 70%	● 0
12		End of Borehole	12.00				
4							
14							
16							
5							
18							
6							
20							

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-20

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 03-Dec-2010
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
(m) (ft)							PID ● 20 40 60 80 100
	Ground Surface		0.00				
	TOPSOIL	dark brown, roots, wet	0.40				
	GRAVEL	brown, fine to medium, wet to moist	0.60				
	SILT	dark brown, some medium gravel, dry to moist	0.70				
2		SILT AND medium to coarse GRAVEL / small COBBLES	2.30	1	MC	31.2" 65%	● 0
	CLAYEY SILT	brown to yellowish brown					
1		CLAYEY SILT					● 0
4		CLAYEY SILT	4.50				● 0
6		CLAYEY SILT		2	MC	31.2" 65%	● 0
2		CLAYEY SILT					
6		CLAYEY SILT					● 0
8							● 0
10				3	MC	28.8" 60%	● 0
3		No Recovery	10.50				
12		End of Borehole	12.00				● 0
4							● 0
14							● 0
16							● 0
5							● 0
18							● 0
6							● 0
20							● 0






Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-21

Project: Remedial Investigation	Drilling method: Macrocore
Client: Blades Holding Company Inc.	Date started/completed: 03-Dec-2010
Location: 5392 Rt 19, Amity, NY	Ground surface elevation: n/a
Number: 190500593.300	Top of casing elevation: n/a
Field investigator: S. Reynolds-Smith	Easting: n/a
Contractor: Nothnagle Drilling	Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
(m)	(ft)						PID ● 20 40 60 80 100
		Ground Surface					
		TOPSOIL dark brown, silt with roots, few medium to coarse gravel, moist	0.00				
		SILT AND fine to coarse GRAVEL yellowish brown, dry to moist and becoming wet at 1.7'	0.60				
2		CLAYEY SILT brown, little medium gravel, wet	2.00	1	MC	26.4"	●
		NO RECOVERY	2.20				
1							
4							
6							
2							
				2	MC	0"	●
						0%	0
8		CLAYEY SILT brown, wet	8.00				●
							0
3		CLAY brown, few silt, wet	9.60	3	MC	37.2"	●
		CLAYEY SILT gray, wet	9.80				
		No Recovery	11.10				
12		End of Borehole	12.00				
4							
14							
16							
5							
18							
6							
20							

Notes:
ft AMSL - feet above mean sea level
ft BGS - feet below ground surface
ft BTOC - feet below top of casing
ft AGS - feet above ground surface
ppm - parts per million
n/a - not available
MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-22

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 03-Dec-2010
Ground surface elevation: 1,365.66 ft AMSL
Top of casing elevation: 1,368.32 ft AMSL
Easting: 1292524.37
Northing: 814248.27

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m) (ft)	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface	1365.66						
		TOPSOIL dark brown, roots, wet	0.00						
		CLAYEY SILT brown, wet	0.30						
2		coarse GRAVEL / COBBLES brown, little fine to coarse sand, wet	1.40	1	MC	25.2" 53%	● 0		Concrete seal with Stick up casing Bentonite Seal Sand Pack (#00N size)
4		NO RECOVERY	1361.16						
4.50			4.50						
6				2	MC	6" 13%	● 0		
8									
10				3	MC	0" 0%			
12		SILTY CLAY gray, wet	1353.66						
12.00			12.00						
14				4	MC	46.8" 98%	● 0		
16		End of Borehole	1349.66						
16.00			16.00						
18									
20									

Sand Pack Interval: 2.50 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.50 - 2.50 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

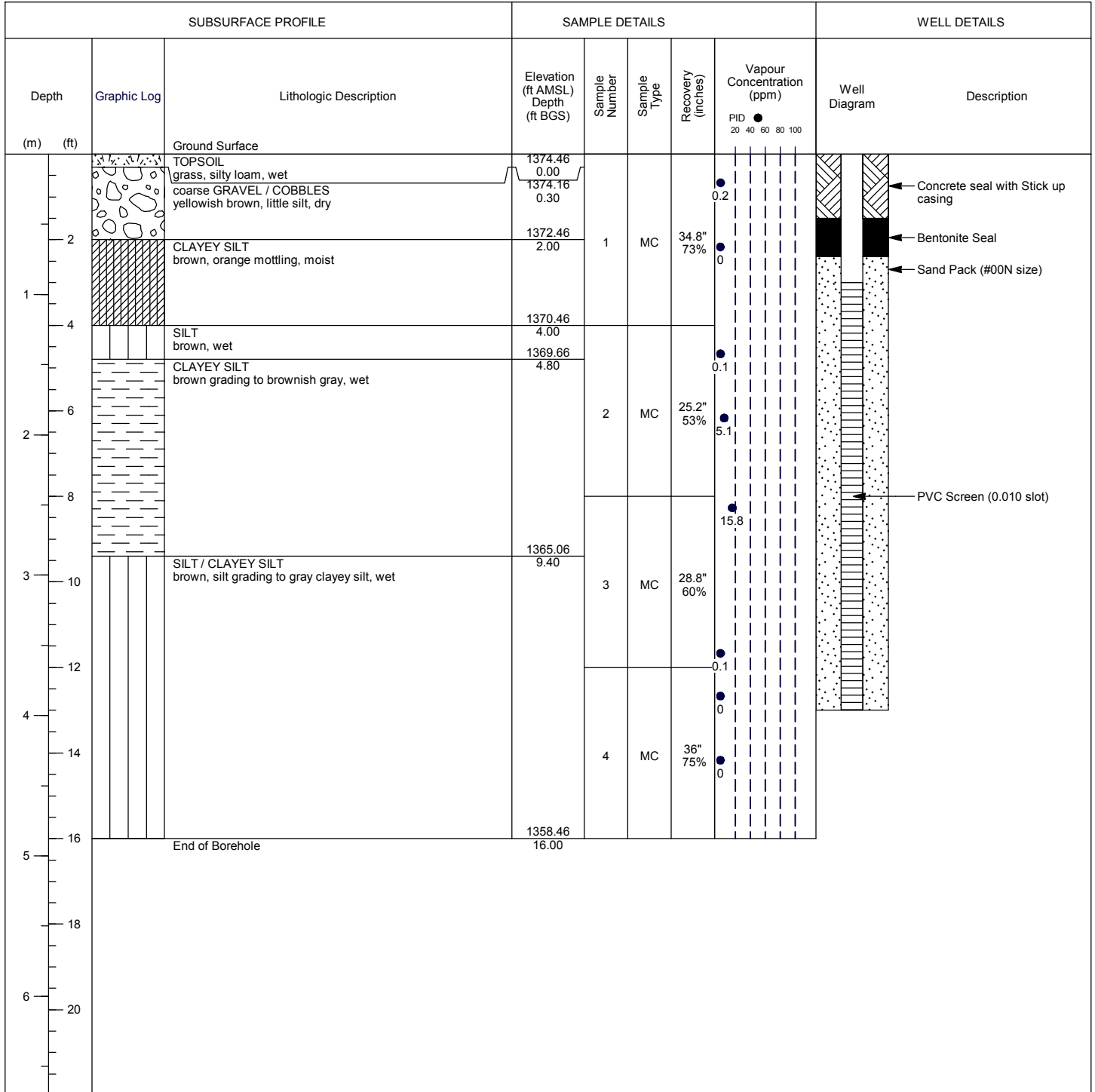
Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-23

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 06-Dec-2010 / 07-Dec-2010
Ground surface elevation: 1,374.46 ft AMSL
Top of casing elevation: 1,377.59 ft AMSL
Easting: 1292619.71
Northing: 814024.92



Sand Pack Interval: 2.40 - 13.00 ft BGS
 Screen Interval: 3.00 - 13.00 ft BGS
 Well Seal Interval: 1.50 - 2.40 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore









Drawn By/Checked By: KP / SRS



Borehole: B-24

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 06-Dec-2010
Ground surface elevation: 1,375.57 ft AMSL
Top of casing elevation: n/a
Easting: 1292608.7
Northing: 814063.85

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth	Graphic Log	Lithologic Description	Elevation (ft AMSL) Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
(m)	(ft)						PID ● 20 40 60 80 100
		Ground Surface					
		TOPSOIL AND GRASS wet	1375.57 0.00				
		GRAVEL black to dark brown, granular low density material, fine to coarse, dry	1375.37 0.20				
		COBBLES brown, few clayey silt, dry to moist	1374.97 0.60				
2		No Recovery	1374.57 1.00	1	MC	12" 25%	0.1
4		coarse GRAVEL / small COBBLES brown, few silt, dry to moist	1371.57 4.00				
		SILT brown	1370.77 4.80				
		SILTY CLAY brown, moist	1370.67 4.90				
2		No Recovery	1368.97 6.60	2	MC	31.2" 65%	0.2 37 50
8		CLAYEY SILT brownish gray, less clay with depth, wet	1367.57 8.00				
3				3	MC	32.4" 68%	19.9
12		SILT brownish gray, few clay, wet	1363.57 12.00				
4				4	MC	34.8" 73%	7 1.3
5		End of Borehole	1359.57 16.00				0.1

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-25

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 06-Dec-2010
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m) (ft)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description
		Ground Surface	0.00						
2		SILTY SAND grayish brown, little gravel, moist	2.00	1	MC	24" 50%	0.8	<p>Concrete seal with Stick up casing</p> <p>Bentonite Seal</p> <p>Sand Pack (#00N size)</p> <p>PVC Screen (0.010 slot)</p>	
4		GRAVELLY SAND brown, moist							
6		SAND AND GRAVEL brown, moist to wet, black staining	6.00	2	MC	24" 50%	0.1		
7		CLAYEY SILT light gray brown, moist	7.00						
8		SILT light grayish brown to gray, trace clay, moist to wet	8.00						
10				3	MC	40" 83%	3.3		
12			12.00						
14		SILT gray, wet		4	MC	38" 79%	0.3		
16		End of Borehole	16.00						

Sand Pack Interval: 4.00 - 16.00 ft BGS
 Screen Interval: 6.00 - 16.00 ft BGS
 Well Seal Interval: 2.00 - 4.00 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

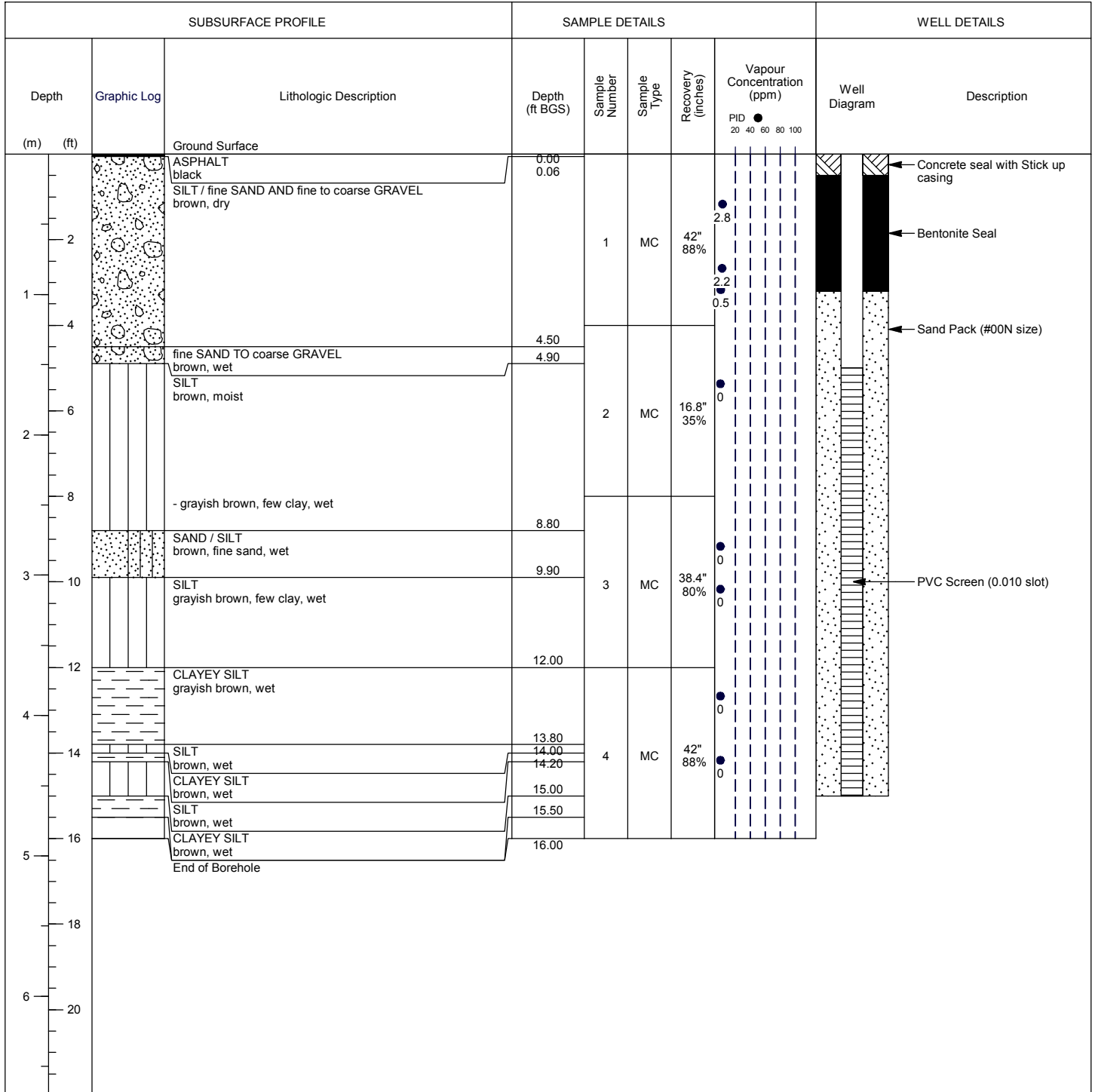
Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-26

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 03-Feb-2011
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a



Sand Pack Interval: 3.20 - 15.00 ft BGS
 Screen Interval: 5.00 - 15.00 ft BGS
 Well Seal Interval: 0.50 - 3.20 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-27

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 03-Feb-2011
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)	Well Diagram	Description
		Ground Surface	0.00						
		ASPHALT black	0.40						
		SILT AND GRAVEL gray / dark brown, base for asphalt, dry	0.90						
2		SILT, fine to medium SAND AND fine to coarse GRAVEL brown, dry and becoming moist at 2.5'		1	MC	33.6" 70%	58		Concrete seal with Stick up casing
		No Recovery	2.80				5.4		Bentonite Seal
1							0.7		
4		SILT grading TO CLAYEY SILT brown grading to grayish brown, moist and becoming moist-wet at 5.7'	4.00						Sand Pack (#00N size)
2				2	MC	39.6" 83%	0.1		
6							0.1		
8		SILT brown, trace clay, wet	8.00				0		
3				3	MC	40.8" 85%	0		PVC Screen (0.010 slot)
10							0		
4				4	MC	44.4" 93%	0		
12							0		
14							0		
5		End of Borehole	16.00						
16									
18									
6									
20									

Sand Pack Interval: 3.10 - 15.00 ft BGS
 Screen Interval: 5.00 - 15.00 ft BGS
 Well Seal Interval: 0.50 - 3.10 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-28D

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 01-Feb-2011
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS		
Depth (m)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)	Well Diagram	Description
		Ground Surface	0.00				PID ● 20 40 60 80 100		
		SILTY TOPSOIL brown, trace clay, trace medium to coarse gravel, roots, moist to dry	0.90						
		SILTY CLAY yellowish brown, dry to moist	1.40						
2		coarse SAND AND fine GRAVEL brown, dry to moist	2.20	1	MC	28.8" 60%	● 0		
		SILTY CLAY yellowish brown, dry to moist	2.30						
		SAND brown, fine, few medium sand, dry	2.40						
1		No Recovery	4.00						
4		fine to medium SAND AND medium GRAVEL brown, moist	4.40	2	MC	31.2" 65%	● 0		
		GRAVEL yellowish brown, angular, medium to coarse, moist	4.90						
		fine to medium, GRAVEL yellowish brown, few coarse sand, wet	5.30						
		CLAYEY SAND brown, wet	5.50						
2		CLAYEY SILT brown, wet	8.00						
3		CLAYEY SILT grayish brown	10.00	3	MC	39.6" 83%	● 0		
			12.00				● 0		
4			14.80	4	MC	37.2" 78%	● 0		← Grout
		SILTY CLAY grayish brown, wet	16.00				● 0		
5		CLAYEY SILT grayish brown, wet	18.00	5	MC	43.2" 90%	● 0		
			20.00				● 0		
6		SILTY CLAY brown, wet	20.40				● 0		
		CLAYEY SILT brown, wet	20.40				● 0		
			20.40				● 0		

Sand Pack Interval: 27.70 - 40.00 ft BGS
 Screen Interval: 30.00 - 40.00 ft BGS
 Well Seal Interval: 25.00 - 27.70 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Monitoring Well: B/MW-28D

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore / Hollow Stem Auger
Date started/completed: 01-Feb-2011
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				WELL DETAILS			
Depth (m) (ft)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm) PID ● 20 40 60 80 100	Well Diagram	Description	
7		CLAYEY SILT brown, wet	23.30	6	MC	43.2" 90%	●			
24		SILTY CLAY brown, wet		7	MC	48" 100%	●			
8		CLAYEY SILT brown, wet	26.00	7	MC	48" 100%	●			← Bentonite Seal
26	SILTY CLAY brown, wet	26.30								
		CLAYEY SILT brown, wet	27.10	8	MC	48" 100%	●			← Sand Pack (#00N size)
28	SILTY CLAY brown, wet	27.70								
		CLAYEY SILT brown, wet	29.00	9	MC	48" 100%	●			← PVC Screen (0.010 slot)
9	SILTY CLAY brown, wet	30.20								
		CLAYEY SILT brown, wet	30.20	10	MC	42" 88%	●			
10	SILTY CLAY brown, wet	33.10								
		CLAYEY SILT brown, wet	34.10	10	MC	42" 88%	●			
11	SILTY CLAY brown, wet	34.70								
		CLAYEY SILT brown, wet	35.10	10	MC	42" 88%	●			
12	SILTY CLAY brown, wet	36.00								
		CLAYEY SILT brown, wet	37.00	10	MC	42" 88%	●			
13	SILTY CLAY brown, wet	37.30								
		CLAYEY SILT brown, wet	38.00	10	MC	42" 88%	●			
12	SILTY CLAY brown, wet	38.00								
		CLAYEY SILT brown, wet	40.00				●			
		End of Borehole	40.00				●			

Sand Pack Interval: 27.70 - 40.00 ft BGS
 Screen Interval: 30.00 - 40.00 ft BGS
 Well Seal Interval: 25.00 - 27.70 ft BGS

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore











Drawn By/Checked By: KP / SRS



Borehole: B-30

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 04-Feb-2011
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth (m) (ft)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
		Ground Surface	0.00				
		ASPHALT black	0.30				
		GRAVEL asphalt subbase	0.60				
2		SILT AND fine to coarse GRAVEL brown with orange mottling, dry	1.40				
		SILTY CLAY brown, tight, dry	2.50	1	MC	36"	●
		SILT AND fine to coarse GRAVEL brown with orange mottling, dry	3.00			75%	0
1		No Recovery	4.00				0
4		GRAVEL brown, medium to fine, wet	4.60				
		SAND brown, medium, wet	5.40				0.4
		GRAVEL AND SAND brown, coarse gravel, wet	5.60	2	MC	40.8"	●
2		CLAYEY SILT brown, wet	7.00			85%	0.3
		SILTY CLAY brown, wet	8.00				
3		CLAYEY SILT brown, wet		3	MC	28.8"	●
						60%	0.1
4							
			14.40	4	MC	28.8"	●
		No Recovery				60%	0.2
5		End of Borehole	16.00				

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-31

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 04-Feb-2011
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth (m) (ft)	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
		Ground Surface	0.00				
		ASPHALT black	0.30				
		SILT dark brown at 0.3' to 1.1' and brown at 1.6' to 3', some fine to coarse gravel, odor, dry	1.60				
2		SILTY CLAY grayish brown, dry	3.00	1	MC	43.2" 90%	40.7
1		SILT AND fine to medium GRAVEL yellowish brown, dry	3.60				5.4
4		SILT brown, trace clay grading to few clay, few medium gravel, dry to moist and becoming wet at about 8'	7.10	2	MC	7.2" 15%	2.6
2			7.1				0.6
8			9.10	3	MC	36" 75%	2.0
3		fine SAND / SILT brown, wet	9.60				1.3
10		SILT brown, few clay, wet	12.00	4	MC	24" 50%	1.1
12		CLAYEY SILT brown, wet	13.60				
14		SILTY CLAY brown, wet No Recovery	14.00				
16		End of Borehole	16.00				
18							
20							

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Borehole: B-32

Project: Remedial Investigation
Client: Blades Holding Company Inc.
Location: 5392 Rt 19, Amity, NY
Number: 190500593.300
Field investigator: S. Reynolds-Smith
Contractor: Nothnagle Drilling

Drilling method: Macrocore
Date started/completed: 07-Feb-2011
Ground surface elevation: n/a
Top of casing elevation: n/a
Easting: n/a
Northing: n/a

SUBSURFACE PROFILE			SAMPLE DETAILS				
Depth	Graphic Log	Lithologic Description	Depth (ft BGS)	Sample Number	Sample Type	Recovery (inches)	Vapour Concentration (ppm)
(m) (ft)							PID ● 20 40 60 80 100
	Ground Surface						
	ASPHALT black		0.00				
	GRAVEL asphalt subbase		0.50				
	SILT AND medium GRAVEL yellowish brown, dry		0.90				
2	SILTY CLAY brown to yellowish brown with gray mottling, dry		1.60	1	MC	45.6" 95%	● 0
1							
4	SILT AND fine to coarse GRAVEL brown, dry		4.20	2	MC	26.4" 55%	● 0
2							
6	SAND brown, medium, moist to wet		6.00	3	MC	27.6" 58%	● 0
8	- fine grading to coarse, few coarse gravel, wet						
10	- fine to coarse		12.90	4	MC	30" 63%	● 0
4							
14	GRAVEL brown, medium to coarse, wet		13.40				
	CLAYEY SILT brown, wet		14.50				
	No Recovery						
16	End of Borehole		16.00				
5							
18							
6							
20							

Notes:
 ft AMSL - feet above mean sea level
 ft BGS - feet below ground surface
 ft BTOC - feet below top of casing
 ft AGS - feet above ground surface
 ppm - parts per million
 n/a - not available
 MC - macrocore

Drawn By/Checked By: KP / SRS



Appendix C

Water Well Video Survey Summary



RETAIL STORE:
12870 Rt. 39 Sardinia, NY 14134



Phone: (716) 492-3930 Fax: (716) 492-2878

Mailing: PO Box 30

Freedom, NY 14065

Website: www.willeywelldrilling.com

Email: wwdinc@localnet.com

"When Only The Best Will Do!"

December 6, 2010

Nothnagle Drilling
1821 Scottsville Mumford Road
Scottsville, NY 14546-9784

Re: Water Well Log

The following information pertains to the water well at #5392 State Road 19, Belmont, NY:

Total Depth: 180 ft.

Casing Diameter: 6 in.

Casing Length: 180 ft.

Pump Setting: 156 ft.

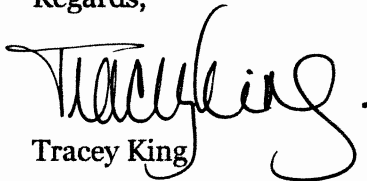
Static Level: 12 ft.

Casing Joints @ 18, 39, 59, 78, 99, 119, 139, 160 ft.

Submersible Pump: Goulds 48LE75

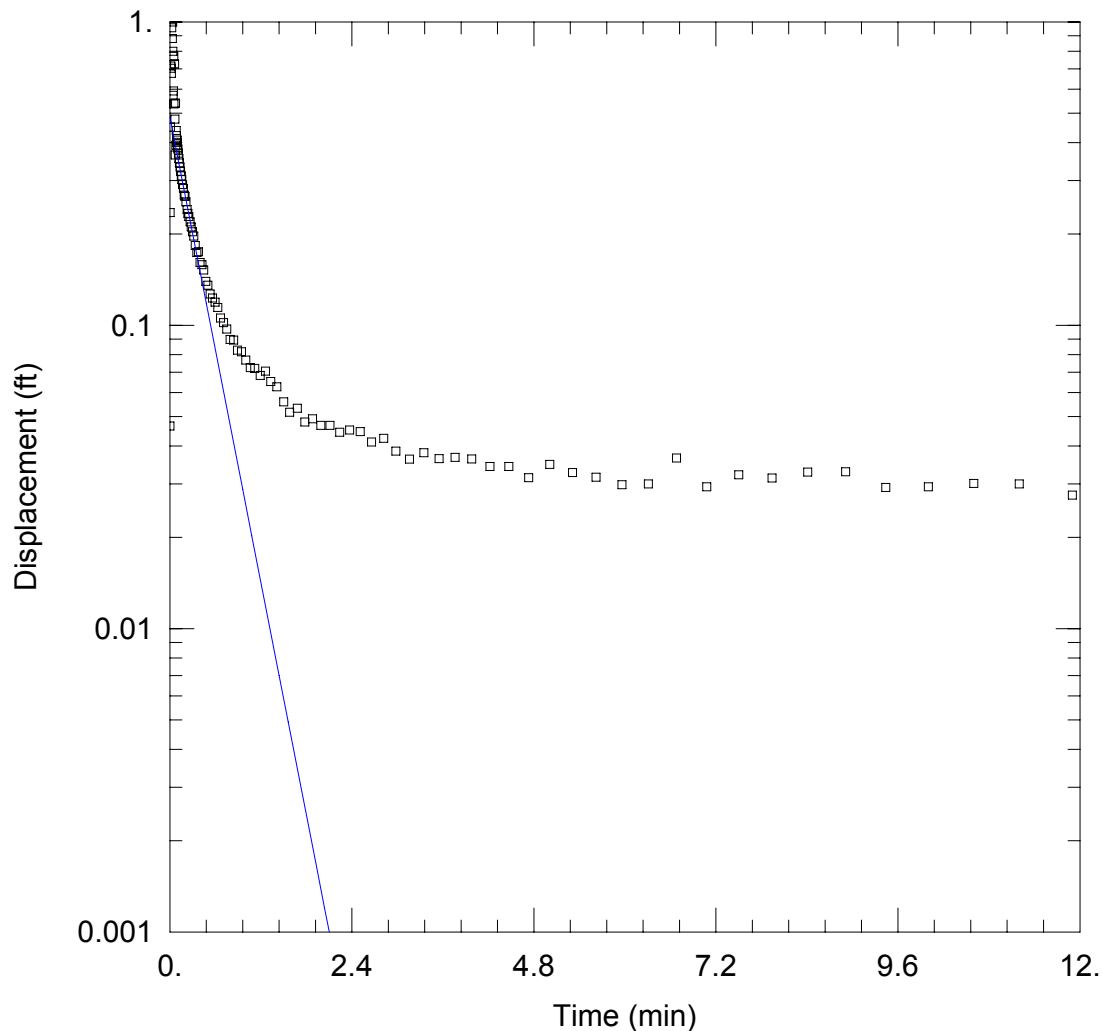
If you have any questions, please let me know. Thank you.

Regards,


Tracey King

Appendix D

Aquifer Testing Reports



MW-9 - FALLING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw9-F.aqt

Date: 06/20/11

Time: 12:48:17

PROJECT INFORMATION

Company: Stantec

Client: Blades Holding Company

Project: 190500593.300

Location: Former Belmont Asphalt Plant

Test Well: MW-9

Test Date: 2/23/11

AQUIFER DATA

Saturated Thickness: 9.08 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-9)

Initial Displacement: 1.04 ft

Static Water Column Height: 9.08 ft

Total Well Penetration Depth: 9.08 ft

Screen Length: 9.08 ft

Casing Radius: 0.0833 ft

Well Radius: 0.3333 ft

Gravel Pack Porosity: 0.4

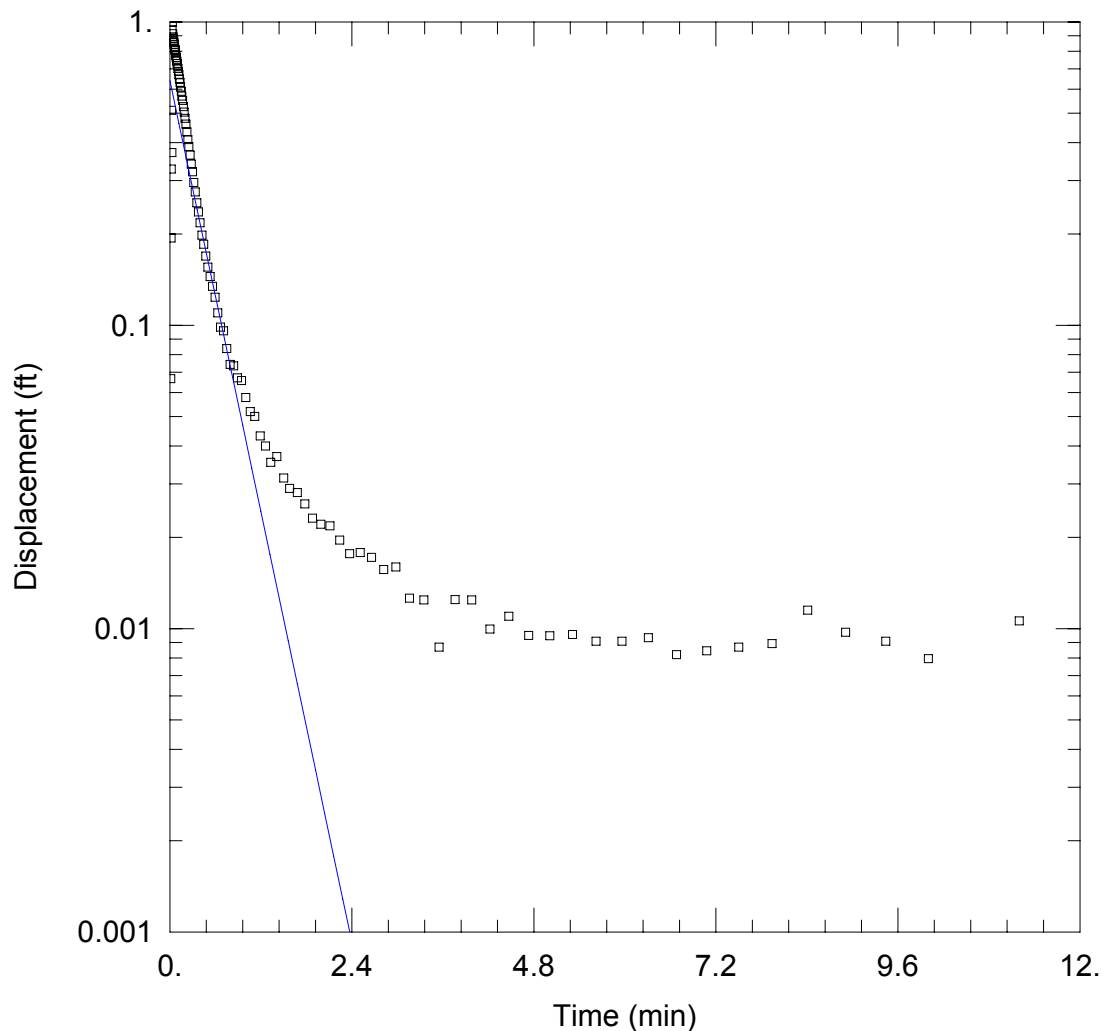
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

$K = 0.009769$ cm/sec

$y_0 = 0.4856$ ft



MW-9 - RISING HEAD TEST #1

Data Set: U:\190500593\field_data\Aquifer Test Data\mw9-R1.aqt

Date: 06/20/11

Time: 12:52:55

PROJECT INFORMATION

Company: Stantec

Client: Blades Holding Company

Project: 190500593.300

Location: Former Belmont Asphalt Plant

Test Well: MW-9

Test Date: 2/23/11

AQUIFER DATA

Saturated Thickness: 9.08 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-9)

Initial Displacement: 1.456 ft

Total Well Penetration Depth: 9.08 ft

Casing Radius: 0.0833 ft

Static Water Column Height: 9.08 ft

Screen Length: 9.08 ft

Well Radius: 0.3333 ft

Gravel Pack Porosity: 0.4

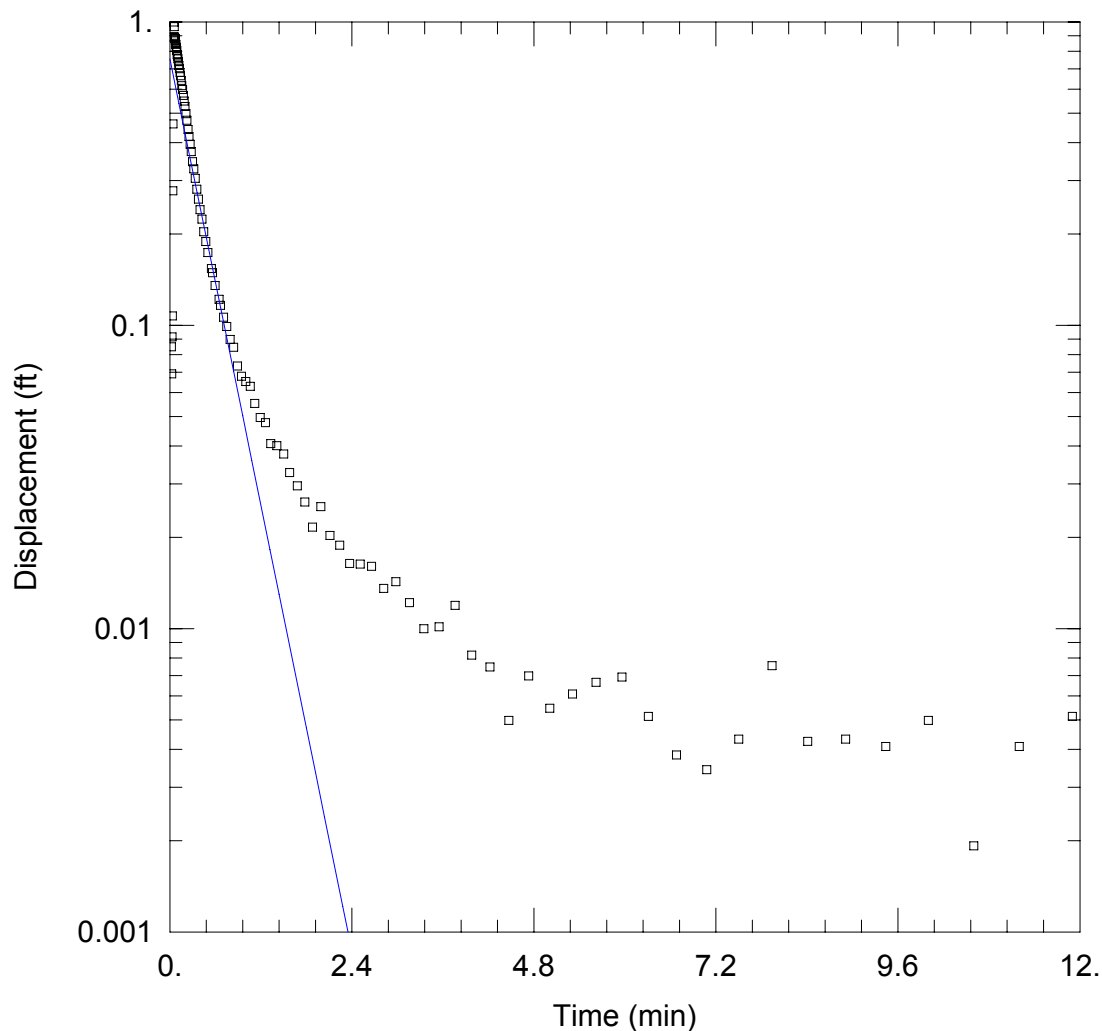
SOLUTION

Aquifer Model: Unconfined

$K = 0.009047$ cm/sec

Solution Method: Bower-Rice

$y_0 = 0.641$ ft



MW-9 - RISING HEAD TEST #2

Data Set: U:\190500593\field_data\Aquifer Test Data\mw9-R2.aqt
 Date: 06/20/11 Time: 12:53:19

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-9
 Test Date: 2/23/11

AQUIFER DATA

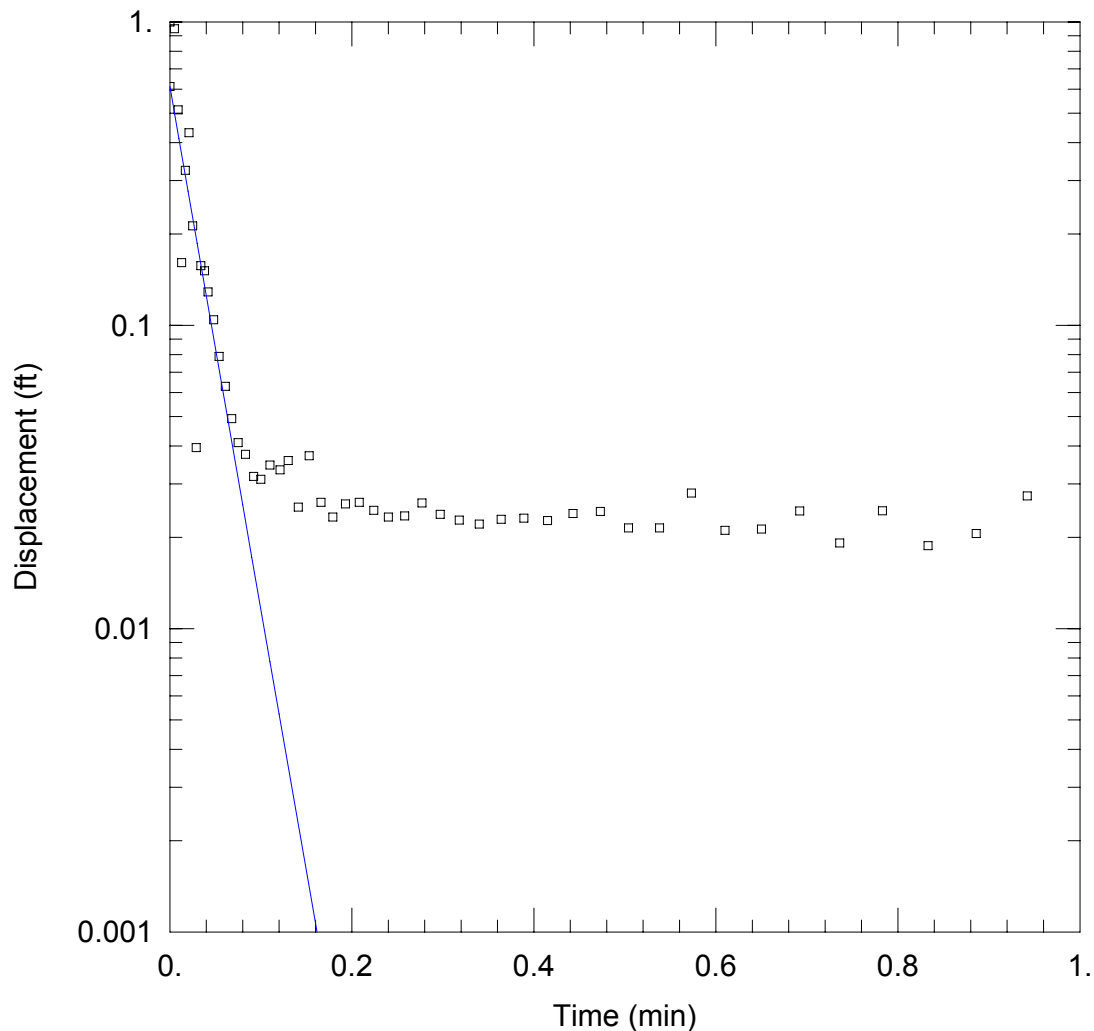
Saturated Thickness: 9.08 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9)

Initial Displacement: 1.44 ft Static Water Column Height: 9.08 ft
 Total Well Penetration Depth: 9.08 ft Screen Length: 9.08 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 0.009365 cm/sec y0 = 0.7547 ft



MW-11 - FALLING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw11-F.aqt
 Date: 06/20/11 Time: 12:54:50

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-11
 Test Date: 2/23/11

AQUIFER DATA

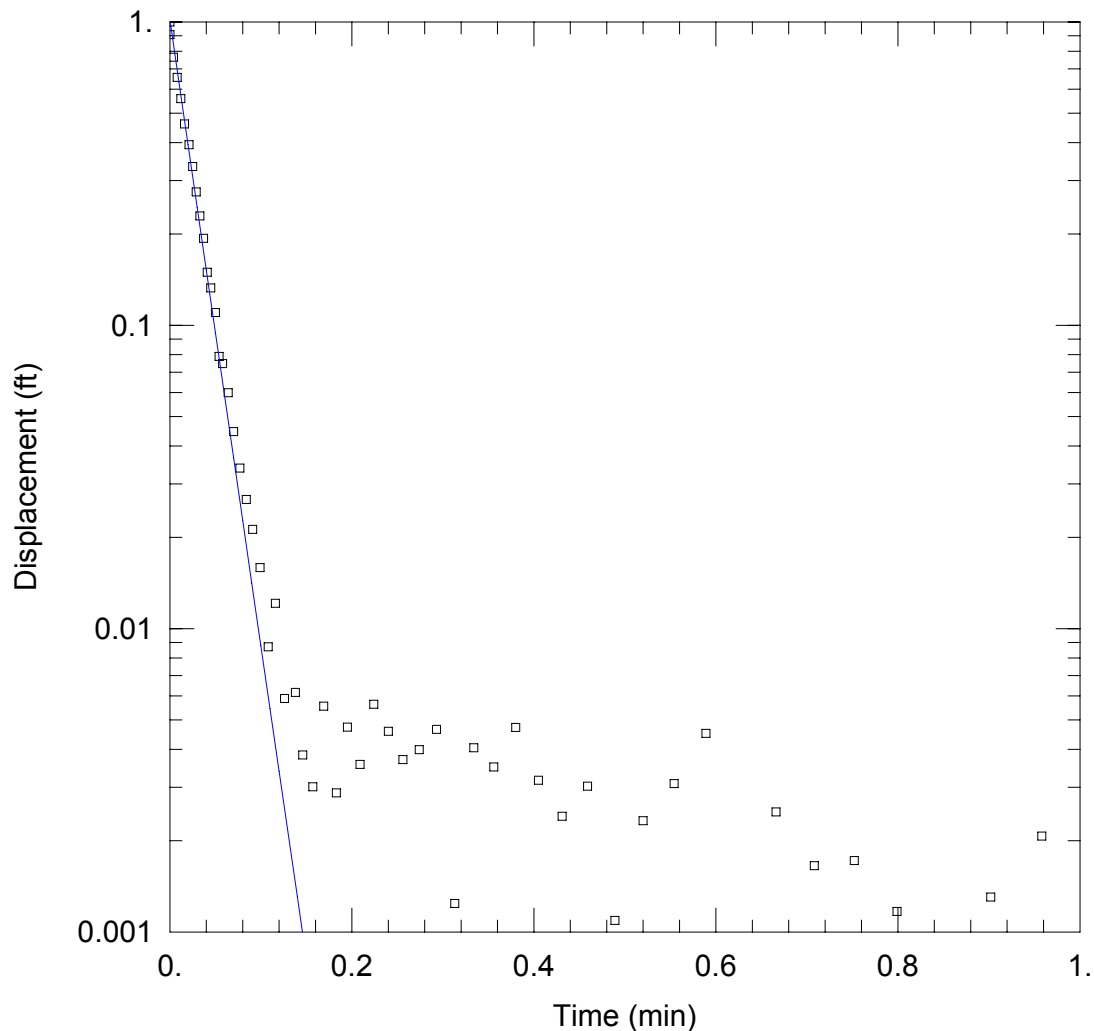
Saturated Thickness: 8.86 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-11)

Initial Displacement: 0.6123 ft Static Water Column Height: 8.86 ft
 Total Well Penetration Depth: 8.86 ft Screen Length: 8.86 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 0.1339 cm/sec y0 = 0.6128 ft



MW-11 - RISING HEAD TEST #1

Data Set: U:\190500593\field_data\Aquifer Test Data\mw11-R1.aqt
 Date: 06/20/11 Time: 12:55:15

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-11
 Test Date: 2/23/11

AQUIFER DATA

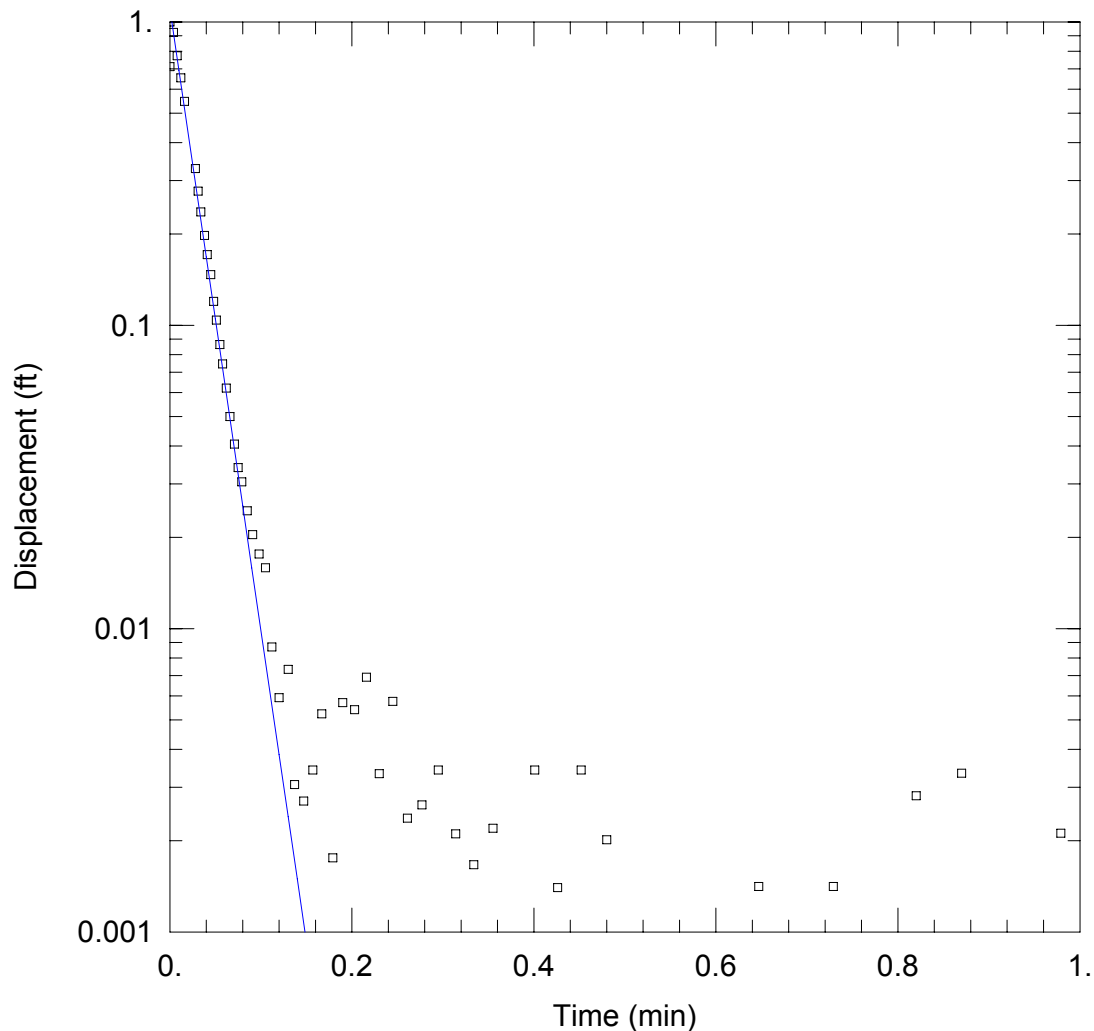
Saturated Thickness: 8.86 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-11)

Initial Displacement: 0.9076 ft Static Water Column Height: 8.86 ft
 Total Well Penetration Depth: 8.86 ft Screen Length: 8.86 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 0.1604 cm/sec y0 = 1.019 ft



MW-11 - RISING HEAD TEST #2

Data Set: U:\190500593\field_data\Aquifer Test Data\mw11-R2.aqt

Date: 06/20/11

Time: 12:55:41

PROJECT INFORMATION

Company: Stantec

Client: Blades Holding Company

Project: 190500593.300

Location: Former Belmont Asphalt Plant

Test Well: MW-11

Test Date: 2/23/11

AQUIFER DATA

Saturated Thickness: 8.86 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-11)

Initial Displacement: 0.7122 ft

Static Water Column Height: 8.86 ft

Total Well Penetration Depth: 8.86 ft

Screen Length: 8.86 ft

Casing Radius: 0.0833 ft

Well Radius: 0.3333 ft

Gravel Pack Porosity: 0.4

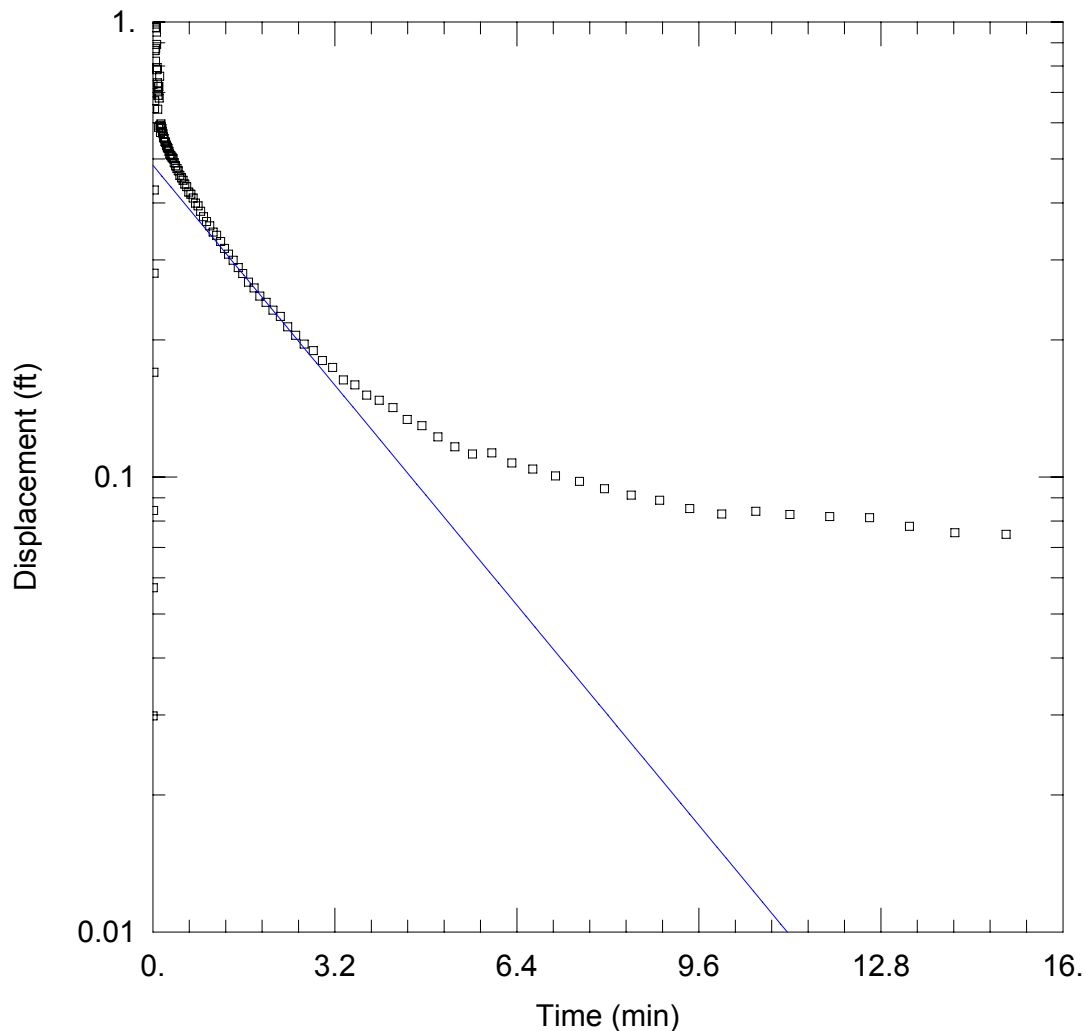
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.1593$ cm/sec

$y_0 = 1.11$ ft



MW-12 - FALLING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw12-F.aqt
 Date: 06/20/11 Time: 12:57:05

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-12
 Test Date: 2/23/11

AQUIFER DATA

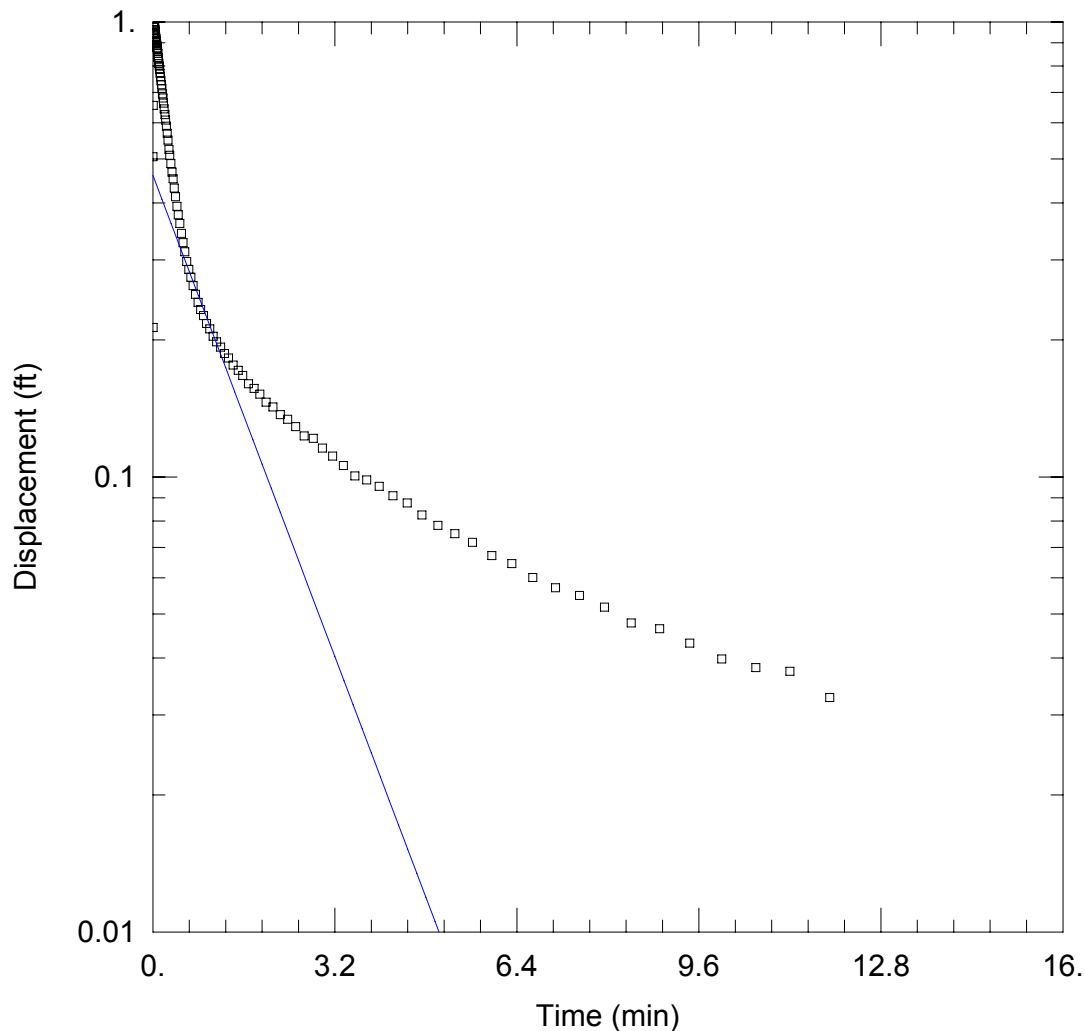
Saturated Thickness: 6.73 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-12)

Initial Displacement: 0.7292 ft Static Water Column Height: 6.73 ft
 Total Well Penetration Depth: 6.73 ft Screen Length: 6.73 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 K = 0.001396 cm/sec y0 = 0.4844 ft



MW-12 - RISING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw12-R.aqt
 Date: 06/20/11 Time: 12:57:46

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-12
 Test Date: 2/23/11

AQUIFER DATA

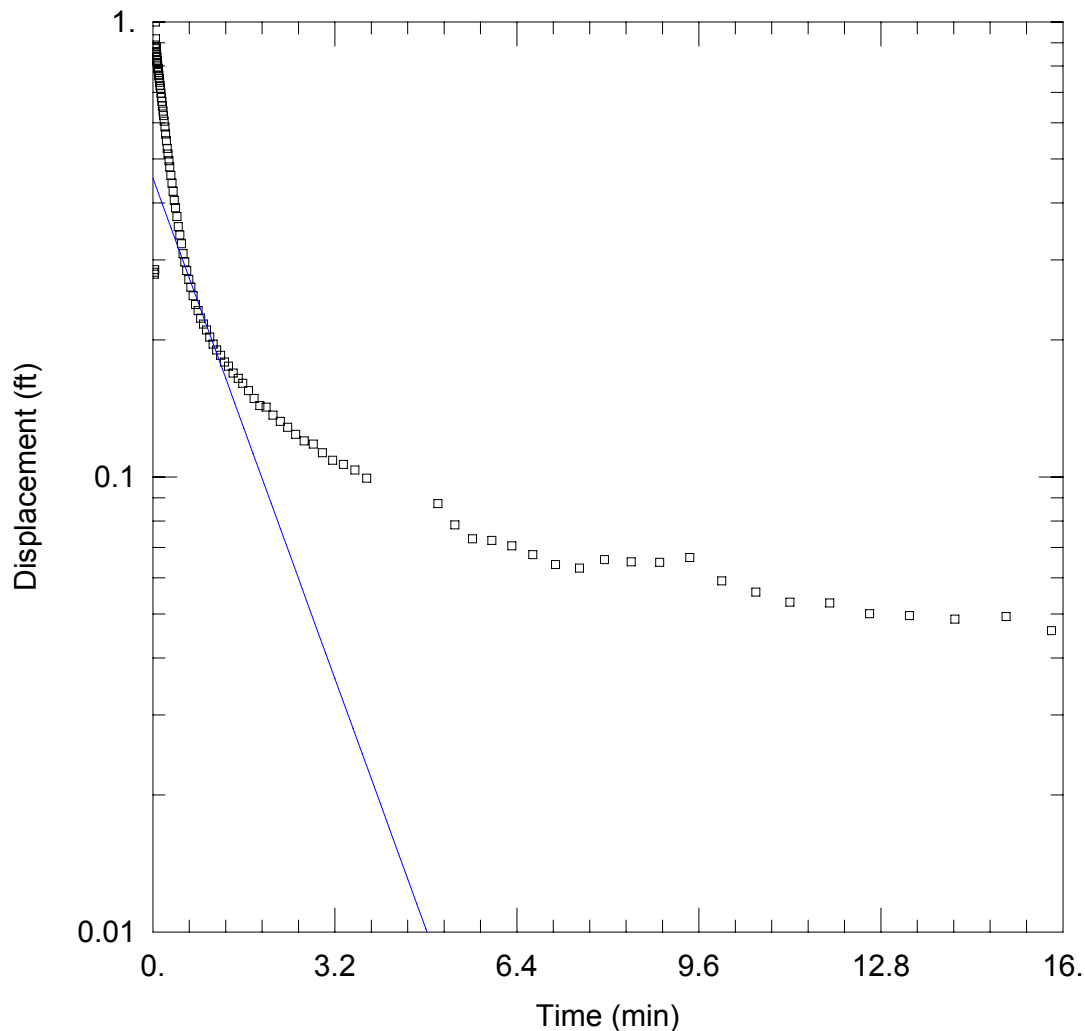
Saturated Thickness: 6.73 ft Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-12)

Initial Displacement: 1.022 ft Static Water Column Height: 6.73 ft
 Total Well Penetration Depth: 6.73 ft Screen Length: 6.73 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 $K = 0.003055$ cm/sec $y_0 = 0.4604$ ft



MW-12 - RISING HEAD TEST #2

Data Set: U:\190500593\field_data\Aquifer Test Data\mw12-R2.aqt
 Date: 06/20/11 Time: 12:57:27

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-12
 Test Date: 2/23/11

AQUIFER DATA

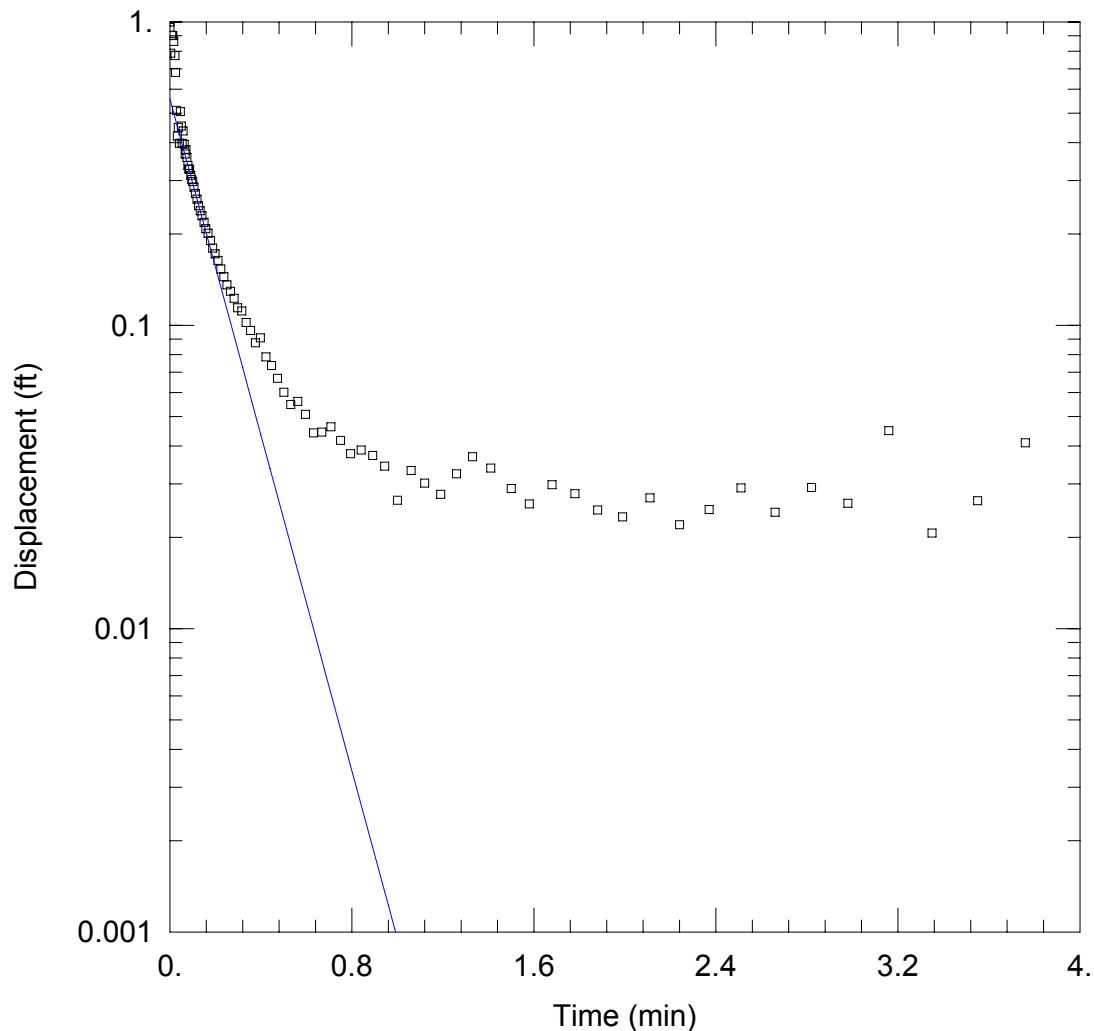
Saturated Thickness: 6.73 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-12)

Initial Displacement: 1.15 ft Static Water Column Height: 6.73 ft
 Total Well Penetration Depth: 6.73 ft Screen Length: 6.73 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 0.003177 cm/sec y0 = 0.4541 ft



MW-23 - FALLING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw23-F.aqt
 Date: 06/20/11 Time: 13:12:14

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-23
 Test Date: 2/23/11

AQUIFER DATA

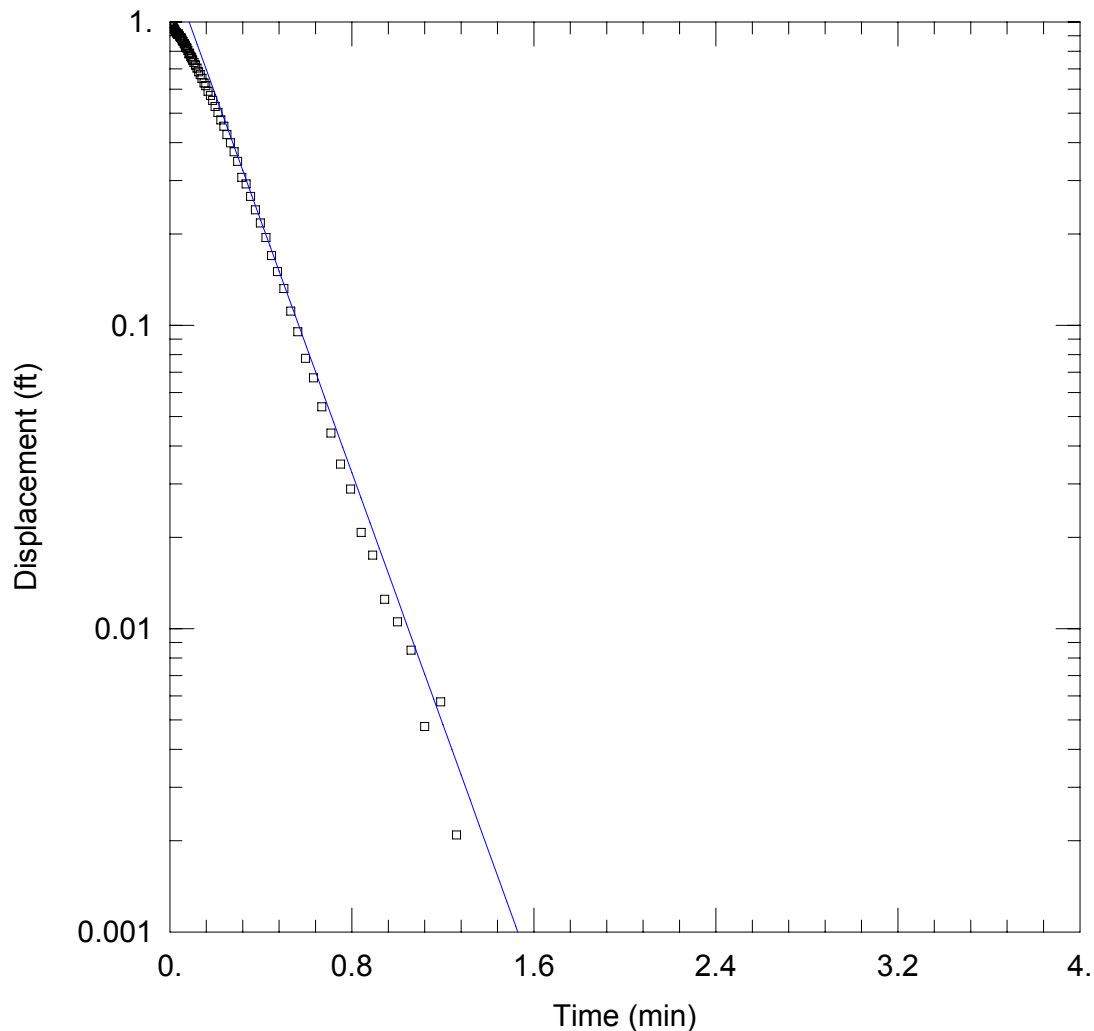
Saturated Thickness: 8.06 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23)

Initial Displacement: 0.959 ft Static Water Column Height: 8.06 ft
 Total Well Penetration Depth: 8.06 ft Screen Length: 8.06 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 0.02285 cm/sec y0 = 0.5572 ft



MW-23 - RISING HEAD TEST #1

Data Set: U:\190500593\field_data\Aquifer Test Data\mw23-R1.aqt
 Date: 06/20/11 Time: 13:12:54

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-23
 Test Date: 2/23/11

AQUIFER DATA

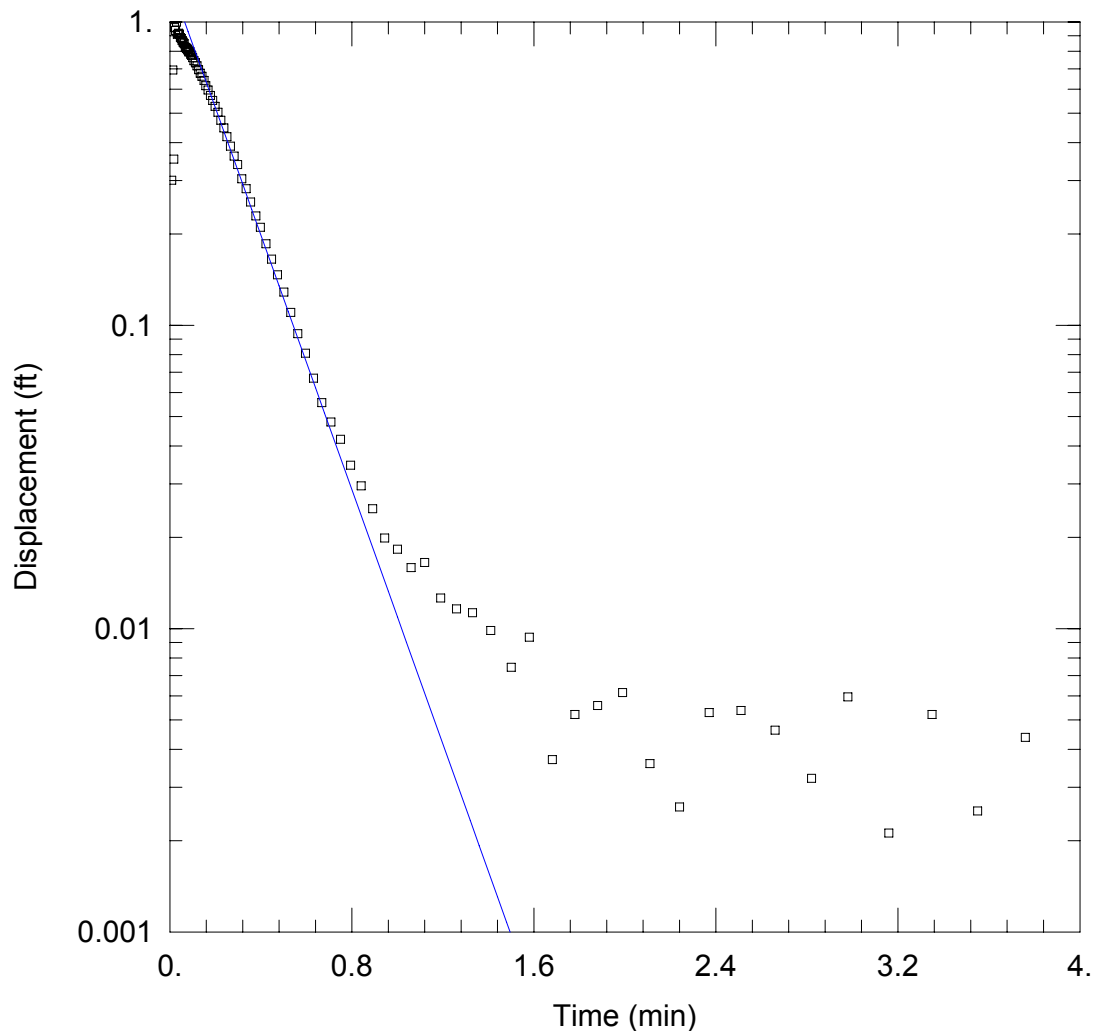
Saturated Thickness: 8.06 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23)

Initial Displacement: 1.316 ft Static Water Column Height: 8.06 ft
 Total Well Penetration Depth: 8.06 ft Screen Length: 8.06 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 0.01714 cm/sec y0 = 1.497 ft



MW-23 - RISING HEAD TEST #2

Data Set: U:\190500593\field_data\Aquifer Test Data\mw23-R2.aqt
 Date: 06/20/11 Time: 13:12:32

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-23
 Test Date: 2/23/11

AQUIFER DATA

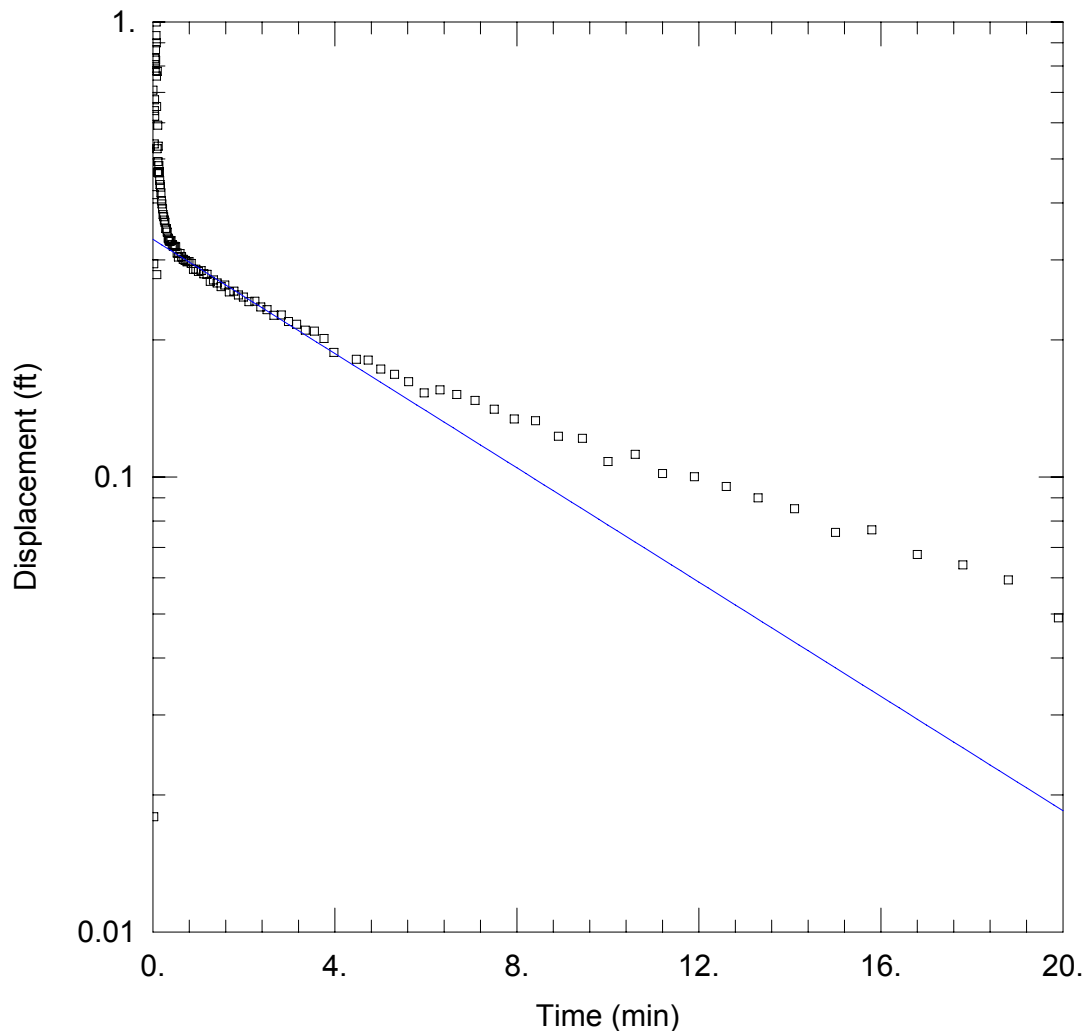
Saturated Thickness: 8.06 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23)

Initial Displacement: 1.405 ft Static Water Column Height: 8.06 ft
 Total Well Penetration Depth: 8.06 ft Screen Length: 8.06 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bower-Rice
 K = 0.01732 cm/sec y0 = 1.37 ft



MW-25 - FALLING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw25-F.aqt

Date: 06/20/11

Time: 13:13:52

PROJECT INFORMATION

Company: Stantec

Client: Blades Holding Company

Project: 190500593.300

Location: Former Belmont Asphalt Plant

Test Well: MW-25

Test Date: 2/23/11

AQUIFER DATA

Saturated Thickness: 8.67 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-25)

Initial Displacement: 0.7078 ft

Static Water Column Height: 8.67 ft

Total Well Penetration Depth: 8.67 ft

Screen Length: 8.67 ft

Casing Radius: 0.0833 ft

Well Radius: 0.3333 ft

Gravel Pack Porosity: 0.4

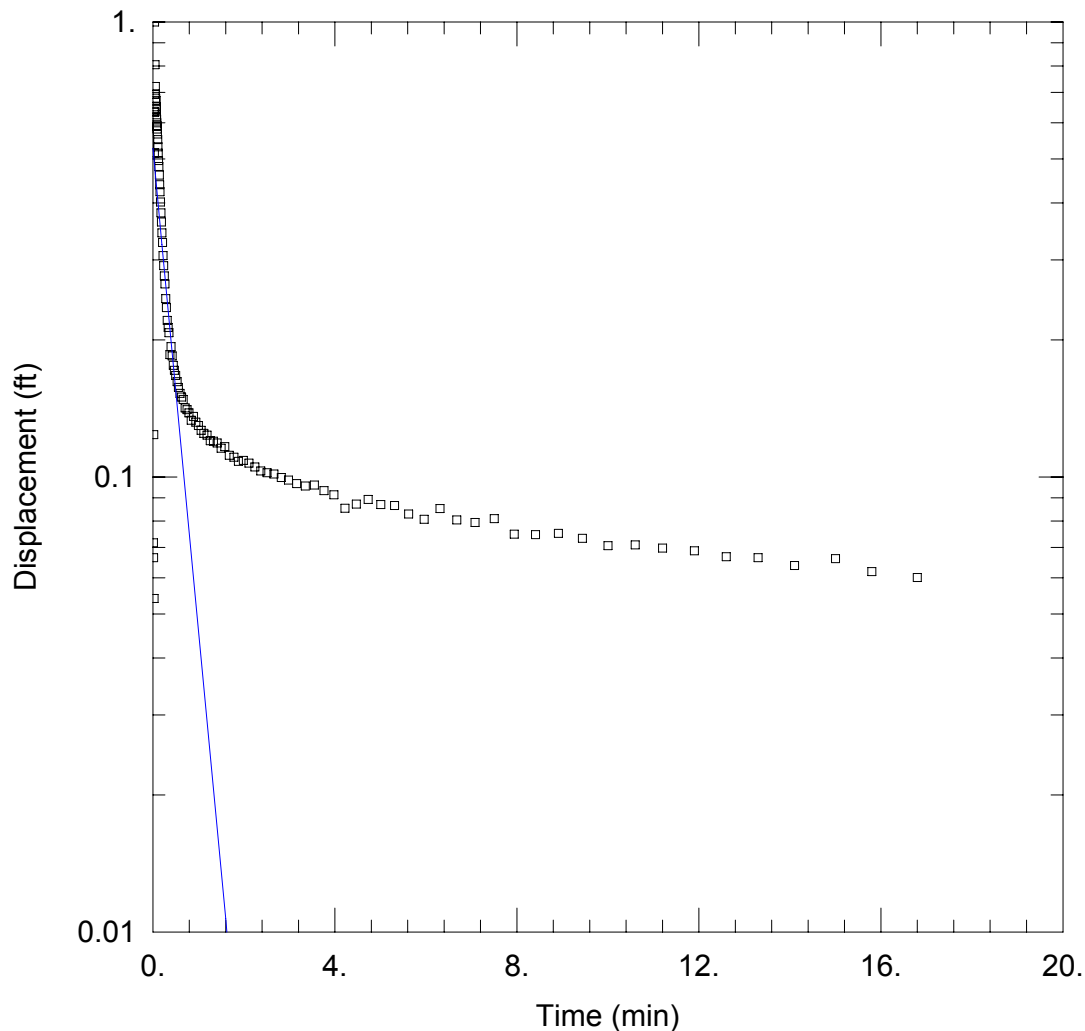
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

$K = 0.0004946$ cm/sec

$y_0 = 0.333$ ft



MW-25 - RISING HEAD TEST #1

Data Set: U:\190500593\field_data\Aquifer Test Data\mw25-R1.aqt
 Date: 06/20/11 Time: 13:14:08

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-25
 Test Date: 2/23/11

AQUIFER DATA

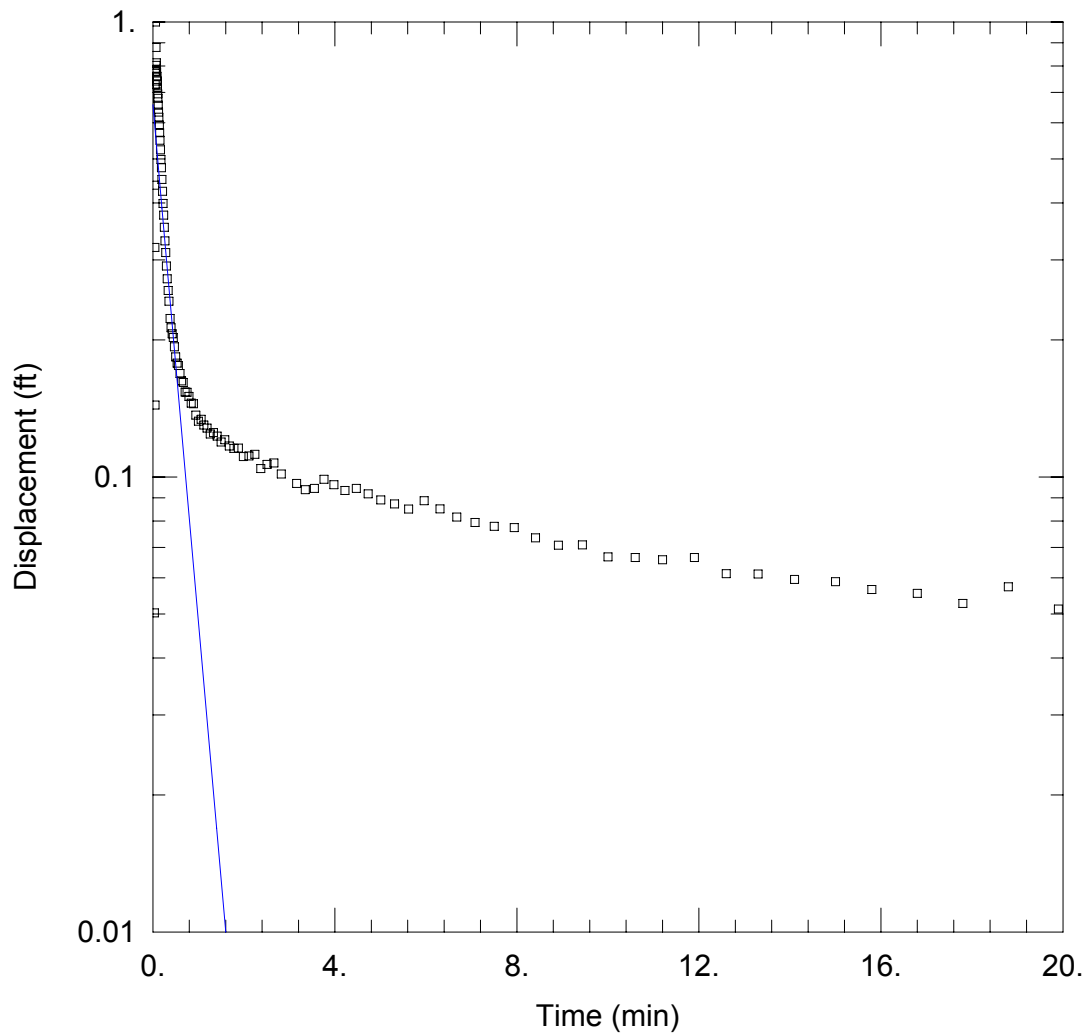
Saturated Thickness: 8.67 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25)

Initial Displacement: 1.201 ft Static Water Column Height: 8.67 ft
 Total Well Penetration Depth: 8.67 ft Screen Length: 8.67 ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 K = 0.008338 cm/sec y0 = 0.5278 ft



MW-25 - RISING HEAD TEST #2

Data Set: U:\190500593\field_data\Aquifer Test Data\mw25-R2.aqt

Date: 06/20/11

Time: 13:14:36

PROJECT INFORMATION

Company: Stantec

Client: Blades Holding Company

Project: 190500593.300

Location: Former Belmont Asphalt Plant

Test Well: MW-25

Test Date: 2/23/11

AQUIFER DATA

Saturated Thickness: 8.67 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25)

Initial Displacement: 1.133 ft

Static Water Column Height: 8.67 ft

Total Well Penetration Depth: 8.67 ft

Screen Length: 8.67 ft

Casing Radius: 0.0833 ft

Well Radius: 0.3333 ft

Gravel Pack Porosity: 0.4

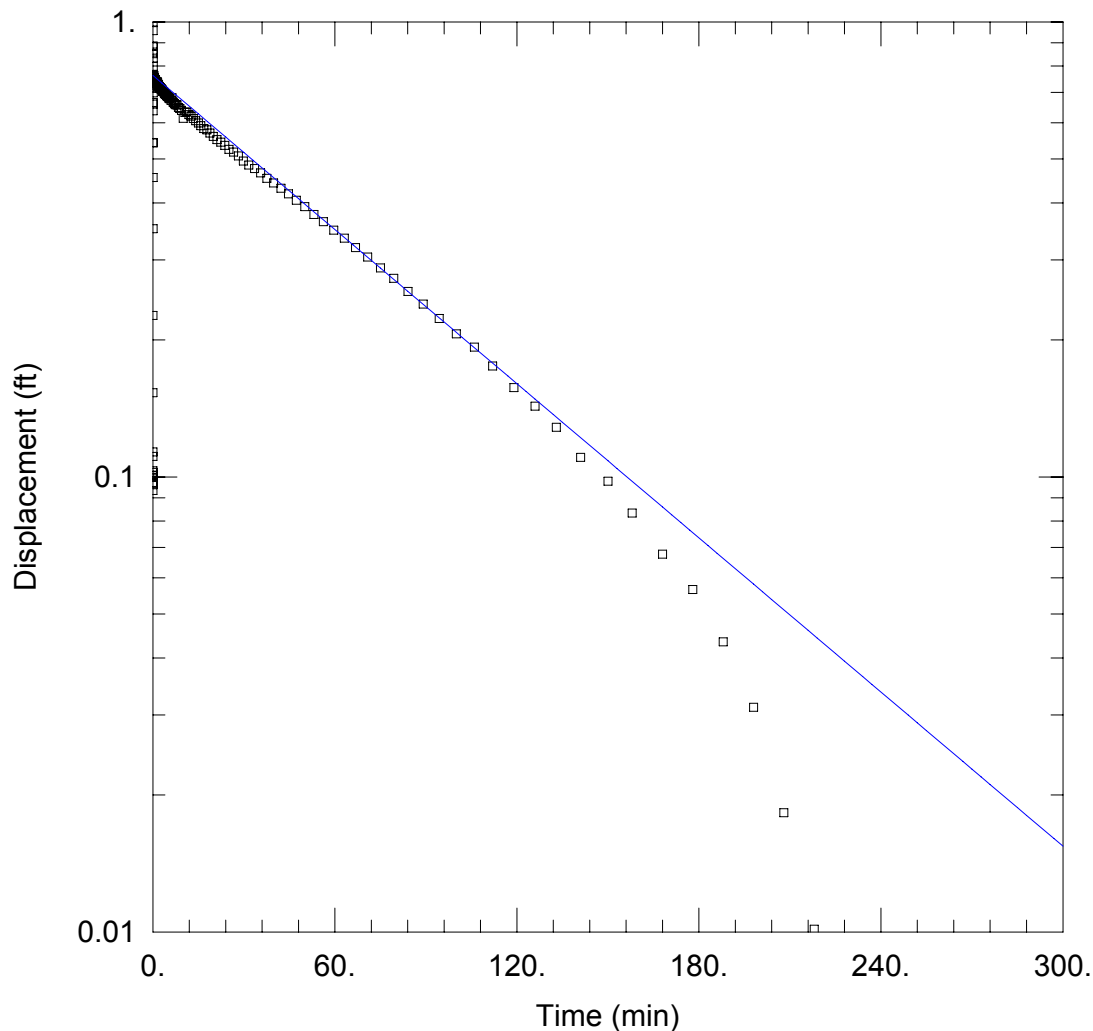
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.008948 cm/sec

y0 = 0.6579 ft



MW-28D - FALLING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw28D-F.aqt

Date: 06/20/11

Time: 13:15:40

PROJECT INFORMATION

Company: Stantec

Client: Blades Holding Company

Project: 190500593.300

Location: Former Belmont Asphalt Plant

Test Well: MW-28D

Test Date: 2/23/11

AQUIFER DATA

Saturated Thickness: 24.7 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-28D)

Initial Displacement: 1.284 ft

Static Water Column Height: 24.7 ft

Total Well Penetration Depth: 24.7 ft

Screen Length: 10. ft

Casing Radius: 0.0833 ft

Well Radius: 0.3333 ft

Gravel Pack Porosity: 0.4

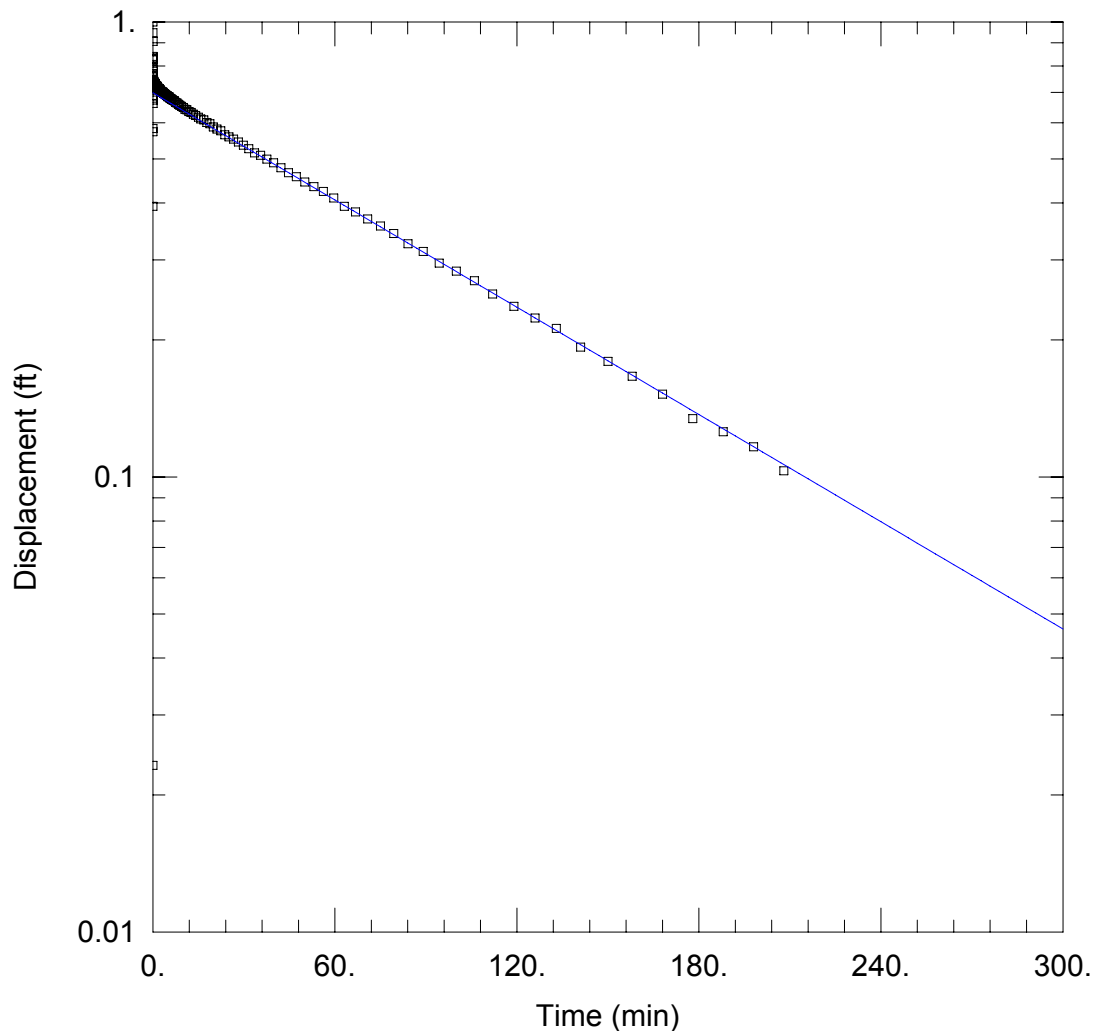
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

$K = 4.906E-5$ cm/sec

$y_0 = 0.763$ ft



MW-28D - RISING HEAD TEST

Data Set: U:\190500593\field_data\Aquifer Test Data\mw28D-R.aqt
 Date: 06/20/11 Time: 13:15:10

PROJECT INFORMATION

Company: Stantec
 Client: Blades Holding Company
 Project: 190500593.300
 Location: Former Belmont Asphalt Plant
 Test Well: MW-28D
 Test Date: 2/24/11

AQUIFER DATA

Saturated Thickness: 24.6 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25)

Initial Displacement: 1.286 ft Static Water Column Height: 24.6 ft
 Total Well Penetration Depth: 24.6 ft Screen Length: 10. ft
 Casing Radius: 0.0833 ft Well Radius: 0.3333 ft
 Gravel Pack Porosity: 0.4

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 K = 3.41E-5 cm/sec y0 = 0.6988 ft

Appendix E

Investigation Derived Waste Documentation

SHIPPING DOCUMENT	1. Generator ID Number NYD981564792	2. Page 1 of 1	3. Emergency Response Phone (877) 818-0087	4. Shipping Document Tracking Number ZZ 00171783					
5. Generator's Name and Mailing Address FORMER ALLEGANY BITUMENS BELMONT ASPHALT PLANT 5392 STATE ROUTE 19 BELMONT, NY 14813			Generator's Site Address (if different than mailing address) SAME						
Generator's Phone: 585 413-5272									
6. Transporter 1 Company Name VEOLIA ES TECHNICAL SOLUTIONS			U.S. EPA ID Number NJ D 0 8 0 8 3 1 3 8 9						
7. Transporter 2 Company Name VEOLIA ES INDUSTRIAL SERVICES			U.S. EPA ID Number T X R 0 0 0 0 7 7 9 7 0						
8. Designated Facility Name and Site Address VEOLIA ES TECHNICAL SOLUTIONS 4301 INFIRMARY ROAD			U.S. EPA ID Number						
Facility's Phone: 937 859-8101 WEST CARROLLTON, OH 45449			OH D 0 8 3 9 4 5 2 9 3						
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Codes		
		1. NON-REGULATED MATERIAL PER 40 & 49 CFR, (WASTE WATERS)	No.	Type					
			015	DM	6000	P	NONE L		
		2. NON-REGULATED MATERIAL PER 40 & 49 CFR, (PLASTIC SHEETING)							
			003	DM	00400	P	NONE L		
		3. NON-REGULATED MATERIAL PER 40 & 49 CFR, (SOIL/SOIL CUTTINGS)							
			015	DM	11000	P	NONE L		
		4.							
14. Special Handling Instructions and Additional Information ER Service Contracted by VESTS*NEED CERTIFICATE OF DISPOSAL*VEOLIA PERMIT# NJ410* +- 1)W:210564 A:SRRLFLIQ-NH 2)W:210571 A:SRRLFSOLID-NH 3)W:210561 A:SRRLFSOLID-NH									
15. GENERATOR S/OFFEROR S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.									
Generator's/Offeror's Printed/Typed Name Christopher Blados			Signature <i>[Signature]</i>			Month Day Year 0 8 1 5 1 1			
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Shipment								
	Transporter 1 Printed/Typed Name MICHAEL J. BOSE			Signature <i>[Signature]</i>			Month Day Year 0 8 1 5 1 1		
Transporter 2 Printed/Typed Name			Signature			Month Day Year			
DESIGNATED FACILITY	18. Discrepancy								
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
	Shipping Document Tracking Number: _____								
	18b. Alternate Facility (or Generator)			U.S. EPA ID Number					
	Facility's Phone:								
18c. Signature of Alternate Facility (or Generator)						Month Day Year			
19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)									
1.		2.		3.		4.			
20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a									
Printed/Typed Name			Signature			Month Day Year			

PACKING SUMMARY

Generator Number: 580998
FORMER ALLEGANY BITUMENS
BELMONT ASPHALT PLANT
BELMONT, NY 14813
Attn: STEPHANIE REYNOLDS
EPA ID: NYD981564792

Manifest Number: ZZ00171783
Field System ID: YL
Work Order Number: 1417598000
Date Shipped: 08/15/2011

Container#: YL-1417598000-002 Waste Area: Manifest Page/Line: 01 / 1
WMP: 210564 Disposal Code: SRRLFLIQ-NH PHY State: L
Date Accumulated: 08/15/2011 Gen Drum ID:
Shipping Name: NON-REGULATED MATERIAL PER 40 & 49 CFR, (WASTE WATERS)
No. of Commons: **15** Outer Container: 551A2-DM Inner Container:
Primary Waste Codes: NONE,L PCB Serial #: OOS Date: / /
Total Crms Wt: **6000** SIC: 2951 Source: G49 Form: W113 System: H141 Cubic Ft.: 7.50
Individual Common Weights: 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400 (POUNDS)

Units	Container Size	Net Weight	Chemical Name	EPA/State Codes
1	55 GAL		WATER FROM DECON, WELL DEVELOPMENT, PURGE WATER [100%]	NONE, L

Container#: YL-1417598000-003 Waste Area: Manifest Page/Line: 01 / 2
WMP: 210571 Disposal Code: SRRLFSOLID-NH PHY State: S
Date Accumulated: 08/15/2011 Gen Drum ID:
Shipping Name: NON-REGULATED MATERIAL PER 40 & 49 CFR, (PLASTIC SHEETING)
No. of Commons: **05** Outer Container: 551A2-DM Inner Container:
Primary Waste Codes: NONE,L PCB Serial #: OOS Date: / /
Total Crms Wt: **4000** SIC: 2951 Source: G49 Form: W002 System: H141 Cubic Ft.: 7.50
Individual Common Weights: **150, 150, 100, 100, 100** (POUNDS)

Units	Container Size	Net Weight	Chemical Name	EPA/State Codes
1	55 GAL		PLASTIC/PPE FROM WELL INSTALLATIONS AND BORING [100%]	NONE, L

Container#: YL-1417598000-001 Waste Area: Manifest Page/Line: 01 / 3
WMP: 210561 Disposal Code: SRRLFSOLID-NH PHY State: S
Date Accumulated: 08/15/2011 Gen Drum ID:
Shipping Name: NON-REGULATED MATERIAL PER 40 & 49 CFR, (SOIL/SOIL CUTTINGS)
No. of Commons: **15** Outer Container: 551A2-DM Inner Container:
Primary Waste Codes: NONE,L PCB Serial #: OOS Date: / /
Total Crms Wt: **1400** SIC: 2951 Source: G49 Form: W319 System: H141 Cubic Ft.: 7.50
Individual Common Weights: **400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400, 400** (POUNDS)

Units	Container Size	Net Weight	Chemical Name	EPA/State Codes
1	55 GAL		SOIL AND SOIL CUTTINGS [100%]	NONE, L

Activity Report

JOB NO: 1417596000
BILL DOC NO YL10615704
GENERATOR NO 580998

WO NO: 1417596000
EPA ID: NYD981564792

BILL TO: STANTEC
61 COMMERCIAL STREET
ROCHESTER, NY 14614
(585) 413-5266

JOB SITE: FORMER ALLEGANY BITUMENS
BELMONT ASPHALT PLANT
5392 STATE ROUTE 19
BELMONT, NY 14813
(585) 413-5272

CONTACT: MIKE STRONSKY

CONTACT: STEPHANIE REYNOLDS

MANIFEST NUMBER(S):
ZZ00171783

CUSTOMER P.O. NUMBER	PROJECT NUMBER	SHIP DATE	TERR.
		06/15/2011	NY2

DESCRIPTION	# CONT.	CONT./CODE	QTY	UOM	PG/LN	WASTE AREA
Manifest # ZZ00171783 WP 210561 / Approval SRRLFSOLID-NH SOIL CUTTINGS (NON HAZ)	15	531A2	11000	P	1 / 3	
Manifest # ZZ00171783 WP 210564 / Approval SRRLFLIQ-NH WASTE WATERS (NON HAZ)	15	531A2	6000	P	1 / 1	
Manifest # ZZ00171783 WP 210571 / Approval SRRLFSOLID-NH PLASTIC/DEBRIS	03	531A2	400	P	1 / 2	
06/15/2011 Mtrl. - 851A2-85 GAL METAL SALVAGE DRUM (OVERPACK)			13	● / EACH		

2 1/2 hrs on site

Total Hours: 0

Comments:

X By: *[Signature]*

Veolia Environmental Solutions is permitted for and has capacity to accept waste listed above in container quantities.

Appendix F

Geotechnical Data Report

ANALYTICAL REPORT

Job Number: 480-1363-1

Job Description: Geotechnical Analysis

For:

Stantec Consulting Services Inc
61 Commercial Street
Rochester, NY 14614

Attention: Mr. Michael Storonsky



Approved for release.
Pauline Michael
Project Administrator
2/22/2011 8:56 AM

Designee for
Ryan VanDette
Project Manager I
ryan.vandette@testamericainc.com
02/22/2011

cc: Ms. Carole Lieu
Ms. Stephanie Reynolds-Smith

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive, Amherst, NY 14228-2298

Tel (716) 691-2600 Fax (716) 691-7991 www.testamericainc.com



Job Narrative
480-1363-1

Comments

No additional comments.

Receipt

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): BA-B28D-GT (480-1363-3). The container label lists sample collection time as 1415. The COC lists sample collection time as 1411.

All other samples were received in good condition within temperature requirements.

Geotechnical

No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
480-1363-3	BA-B28D-GT				
Sieve Size 3 inch - Percent Finer		100		% Passing	D422
Gravel		0.00		%	D422
Sieve Size 2 inch - Percent Finer		100		% Passing	D422
Sand		11		%	D422
Sieve Size 1.5 inch - Percent Finer		100		% Passing	D422
Coarse Sand		0.00		%	D422
Sieve Size 1 inch - Percent Finer		100		% Passing	D422
Medium Sand		0.00		%	D422
Sieve Size 0.75 inch - Percent Finer		100		% Passing	D422
Fine Sand		11		%	D422
Sieve Size 0.375 inch - Percent Finer		100		% Passing	D422
Silt		76		%	D422
Sieve Size #4 - Percent Finer		100		% Passing	D422
Clay		13		%	D422
Sieve Size #10 - Percent Finer		100		% Passing	D422
Sieve Size #20 - Percent Finer		100		% Passing	D422
Sieve Size #40 - Percent Finer		100		% Passing	D422
Sieve Size #60 - Percent Finer		100		% Passing	D422
Sieve Size #80 - Percent Finer		100		% Passing	D422
Sieve Size #100 - Percent Finer		100		% Passing	D422
Sieve Size #200 - Percent Finer		89		% Passing	D422
Hydrometer Reading 1 - Percent Finer		49		% Passing	D422
Hydrometer Reading 2 - Percent Finer		33		% Passing	D422
Hydrometer Reading 3 - Percent Finer		23		% Passing	D422
Hydrometer Reading 4 - Percent Finer		17		% Passing	D422
Hydrometer Reading 5 - Percent Finer		13		% Passing	D422
Hydrometer Reading 6 - Percent Finer		9.0		% Passing	D422
Hydrometer Reading 7 - Percent Finer		6.1		% Passing	D422

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
480-1363-4	BA-B28D-GT2				
Sieve Size 3 inch - Percent Finer		100		% Passing	D422
Gravel		0.00		%	D422
Sieve Size 2 inch - Percent Finer		100		% Passing	D422
Sand		0.20		%	D422
Sieve Size 1.5 inch - Percent Finer		100		% Passing	D422
Coarse Sand		0.00		%	D422
Sieve Size 1 inch - Percent Finer		100		% Passing	D422
Medium Sand		0.00		%	D422
Sieve Size 0.75 inch - Percent Finer		100		% Passing	D422
Fine Sand		0.20		%	D422
Sieve Size 0.375 inch - Percent Finer		100		% Passing	D422
Silt		46		%	D422
Sieve Size #4 - Percent Finer		100		% Passing	D422
Clay		54		%	D422
Sieve Size #10 - Percent Finer		100		% Passing	D422
Sieve Size #20 - Percent Finer		100		% Passing	D422
Sieve Size #40 - Percent Finer		100		% Passing	D422
Sieve Size #60 - Percent Finer		100		% Passing	D422
Sieve Size #80 - Percent Finer		100		% Passing	D422
Sieve Size #100 - Percent Finer		100		% Passing	D422
Sieve Size #200 - Percent Finer		100		% Passing	D422
Hydrometer Reading 1 - Percent Finer		99		% Passing	D422
Hydrometer Reading 2 - Percent Finer		91		% Passing	D422
Hydrometer Reading 3 - Percent Finer		76		% Passing	D422
Hydrometer Reading 4 - Percent Finer		65		% Passing	D422
Hydrometer Reading 5 - Percent Finer		54		% Passing	D422
Hydrometer Reading 6 - Percent Finer		36		% Passing	D422
Hydrometer Reading 7 - Percent Finer		25		% Passing	D422

METHOD SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Description		Lab Location	Method	Preparation Method
Matrix	Sediment			
Grain Size		TAL BUR	ASTM D422	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

ASTM = ASTM International

METHOD / ANALYST SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Method	Analyst	Analyst ID
ASTM D422	Peterson, Mark A	MAP

SAMPLE SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-1363-3	BA-B28D-GT	Sediment	02/01/2011 1411	02/02/2011 1900
480-1363-4	BA-B28D-GT2	Sediment	02/01/2011 1420	02/02/2011 1900

SAMPLE RESULTS

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Client Sample ID: BA-B28D-GT

Lab Sample ID: 480-1363-3

Date Sampled: 02/01/2011 1411

Client Matrix: Sediment

Date Received: 02/02/2011 1900

D422 Grain Size

Method:	D422	Analysis Batch: 200-13416	Instrument ID:	D422_import
Preparation:	N/A		Lab File ID:	480-1363-A-3.txt
Dilution:	1.0		Initial Weight/Volume:	99.17 g
Date Analyzed:	02/07/2011 1919		Final Weight/Volume:	
Date Prepared:				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	NONE
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		100		
Sieve Size #20 - Percent Finer		100		
Sieve Size #40 - Percent Finer		100		
Sieve Size #60 - Percent Finer		100		
Sieve Size #80 - Percent Finer		100		
Sieve Size #100 - Percent Finer		100		
Sieve Size #200 - Percent Finer		89		
Hydrometer Reading 1 - Percent Finer		49		
Hydrometer Reading 2 - Percent Finer		33		
Hydrometer Reading 3 - Percent Finer		23		
Hydrometer Reading 4 - Percent Finer		17		
Hydrometer Reading 5 - Percent Finer		13		
Hydrometer Reading 6 - Percent Finer		9.0		
Hydrometer Reading 7 - Percent Finer		6.1		

Analytical Data

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Client Sample ID: BA-B28D-GT

Lab Sample ID: 480-1363-3

Date Sampled: 02/01/2011 1411

Client Matrix: Sediment

Date Received: 02/02/2011 1900

D422 Grain Size

Method: D422

Analysis Batch: 200-13416

Instrument ID: D422_import

Preparation: N/A

Lab File ID: 480-1363-A-3.txt

Dilution: 1.0

Initial Weight/Volume: 99.17 g

Date Analyzed: 02/07/2011 1919

Final Weight/Volume:

Date Prepared:

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Gravel		0.00		
Sand		11		
Coarse Sand		0.00		
Medium Sand		0.00		
Fine Sand		11		
Silt		76		
Clay		13		

Analytical Data

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Client Sample ID: BA-B28D-GT2

Lab Sample ID: 480-1363-4

Date Sampled: 02/01/2011 1420

Client Matrix: Sediment

Date Received: 02/02/2011 1900

D422 Grain Size

Method:	D422	Analysis Batch: 200-13416	Instrument ID:	D422_import
Preparation:	N/A		Lab File ID:	480-1363-A-4.txt
Dilution:	1.0		Initial Weight/Volume:	61.5 g
Date Analyzed:	02/07/2011 1923		Final Weight/Volume:	
Date Prepared:				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	NONE
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		100		
Sieve Size #20 - Percent Finer		100		
Sieve Size #40 - Percent Finer		100		
Sieve Size #60 - Percent Finer		100		
Sieve Size #80 - Percent Finer		100		
Sieve Size #100 - Percent Finer		100		
Sieve Size #200 - Percent Finer		100		
Hydrometer Reading 1 - Percent Finer		99		
Hydrometer Reading 2 - Percent Finer		91		
Hydrometer Reading 3 - Percent Finer		76		
Hydrometer Reading 4 - Percent Finer		65		
Hydrometer Reading 5 - Percent Finer		54		
Hydrometer Reading 6 - Percent Finer		36		
Hydrometer Reading 7 - Percent Finer		25		

Analytical Data

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Client Sample ID: BA-B28D-GT2

Lab Sample ID: 480-1363-4

Date Sampled: 02/01/2011 1420

Client Matrix: Sediment

Date Received: 02/02/2011 1900

D422 Grain Size

Method: D422

Analysis Batch: 200-13416

Instrument ID: D422_import

Preparation: N/A

Lab File ID: 480-1363-A-4.txt

Dilution: 1.0

Initial Weight/Volume: 61.5 g

Date Analyzed: 02/07/2011 1923

Final Weight/Volume:

Date Prepared:

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Gravel		0.00		
Sand		0.20		
Coarse Sand		0.00		
Medium Sand		0.00		
Fine Sand		0.20		
Silt		46		
Clay		54		

Particle Size of Soils by ASTM D422

Sample ID: BA-B28D-GT2
 Lab ID: 480-1363-A-4

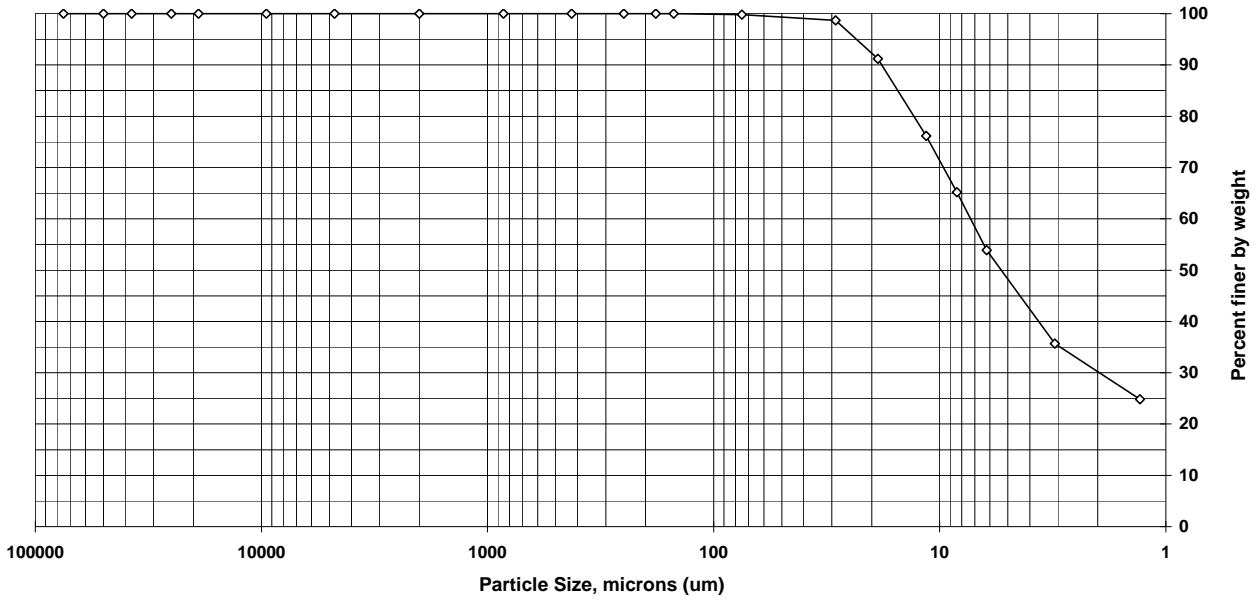
Percent Solids: 69.4%
 Specific Gravity: 2.650

Date Received: 02/02/11
 Start Date: 02/07/11
 End Date: 02/10/11

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	100.0	0.0
#40	425	100.0	0.0
#60	250	100.0	0.0
#80	180	100.0	0.0
#100	150	100.0	0.0
#200	75	99.8	0.2
Hyd1	28.9	98.7	1.1
Hyd2	18.8	91.2	7.5
Hyd3	11.5	76.2	15.0
Hyd4	8.4	65.2	11.0
Hyd5	6.2	53.9	11.3
Hyd6	3.1	35.7	18.2
Hyd7	1.3	24.8	10.9

Soil Classification	Percent of sample
Gravel	0.0
Sand	0.2
Coarse Sand	0.0
Medium Sand	0.0
Fine Sand	0.2
Silt	45.9
Clay	53.9

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	BA-B28D-GT
Lab Sample ID	480-1363-A-3

Date Received	02/02/11
Start Date	02/07/2011 19:19
End Date	02/10/2011 6:11

Dry Weight Determination

Tin Weight	1.01 g
Wet Sample + Tin	25.22 g
Dry Sample + Tin	20.71 g
% Moisture	18.63 %

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	02/07/2011 19:22
Date/Time out of oven	02/08/2011 11:31

Sample Weights

	Tare (g)	Pan+Sample (g)	Samp (g)
Sample Weight (Wet)		99.17	99.17
Sample Weight (Oven Dried)			80.7

Hydrometer Data

Serial Number	741409
Calib. Date (mm/dd/yyyy)	12/21/2010
Low Temp (C)	17.0
Reading at Low Temp	1.0030
High Temp (C)	23.0
Reading at High Temp	1.0020
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.005833333
Default Soil Gravity	2.6500

Sample Split (oven dried)

	Tare (g)	Pan+Sample (g)	Samp (g)
Sample >=#10			0
Sample <#10			80.7
% Passing #10			81.4

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample	% Finer	Classification	Sub Class
3 inch	75000			0.00 g	100.0	Gravel	
2 inch	50000			0.00 g	100.0	Gravel	
1.5 inch	37500			0.00 g	100.0	Gravel	
1 inch	25000			0.00 g	100.0	Gravel	
3/4 inch	19000			0.00 g	100.0	Gravel	
3/8 inch	9500			0.00 g	100.0	Gravel	
#4	4750			0.00 g	100.0	Gravel	
#10	2000			0.00 g	100.0	Sand	Coarse
#20	850	390.74	390.78	0.04 g	100.0	Sand	Medium
#40	425	355.38	355.42	0.04 g	100.0	Sand	Medium
#60	250	323.18	323.22	0.04 g	100.0	Sand	Fine
#80	180	313.07	313.15	0.08 g	99.9	Sand	Fine
#100	150	329.44	329.56	0.12 g	99.8	Sand	Fine
#200	75	321.00	329.57	8.57 g	89.2	Sand	Fine
				0.00 g	89.2		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	80.7
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Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size		Classification	Sub Class
				(Micron)	% Finer		
2	2	1.0270	20.5	29	48.9	Silt	
5	5	1.0190	20.0	20.5	32.8	Silt	
15	15	1.0140	20.0	12.5	22.9	Silt	
30	30	1.0110	20.0	9.1	16.9	Silt	
60	59	1.0090	20.0	6.6	12.9	Silt	
250	256	1.0070	20.0	3.2	8.96	Clay	
1440	1440	1.0055	20.5	1.4	6.14	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	BA-B28D-GT2
Lab Sample ID	480-1363-A-4

Date Received	02/02/11
Start Date	02/07/2011 19:23
End Date	02/10/2011 6:23

Dry Weight Determination

Tin Weight	1.00 g
Wet Sample + Tin	14.70 g
Dry Sample + Tin	10.51 g
% Moisture	30.58 %

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	02/07/2011 19:25
Date/Time out of oven	02/08/2011 11:31

Sample Weights

	Tare (g)	Pan+Sample (g)	Samp (g)
Sample Weight (Wet)	58.05	119.55	61.5
Sample Weight (Oven Dried)			42.7

Hydrometer Data

Serial Number	741409
Calib. Date (mm/dd/yyyy)	12/21/2010
Low Temp (C)	17.0
Reading at Low Temp	1.0030
High Temp (C)	23.0
Reading at High Temp	1.0020
Hydrometer Cal Slope	-0.000166667
Hydrometer Cal Intercept	1.005833333
Default Soil Gravity	2.6500

Sample Split (oven dried)

	Tare (g)	Pan+Sample (g)	Samp (g)
Sample >=#10			0
Sample <#10			42.7
% Passing #10			69.4

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample	% Finer	Classification	Sub Class
3 inch	75000			0.00 g	100.0	Gravel	
2 inch	50000			0.00 g	100.0	Gravel	
1.5 inch	37500			0.00 g	100.0	Gravel	
1 inch	25000			0.00 g	100.0	Gravel	
3/4 inch	19000			0.00 g	100.0	Gravel	
3/8 inch	9500			0.00 g	100.0	Gravel	
#4	4750			0.00 g	100.0	Gravel	
#10	2000			0.00 g	100.0	Sand	Coarse
#20	850	390.74	390.74	0.00 g	100.0	Sand	Medium
#40	425	355.38	355.40	0.02 g	100.0	Sand	Medium
#60	250	323.18	323.18	0.00 g	100.0	Sand	Fine
#80	180	313.07	313.07	0.00 g	100.0	Sand	Fine
#100	150	329.44	329.44	0.00 g	100.0	Sand	Fine
#200	75	321.00	321.07	0.07 g	99.8	Sand	Fine
				0.00 g	99.8		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	42.7
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Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size		Classification	Sub Class
				(Micron)	% Finer		
2	2	1.0290	18.5	28.9	98.7	Silt	
5	5	1.0270	18.5	18.8	91.2	Silt	
15	15	1.0230	18.5	11.5	76.2	Silt	
30	30	1.0200	19.0	8.4	65.2	Silt	
60	58	1.0170	19.0	6.2	53.9	Silt	
250	256	1.0120	20.0	3.1	35.7	Clay	
1440	1440	1.0090	20.5	1.3	24.8	Clay	

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
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QUALITY CONTROL RESULTS

Quality Control Results

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

QC Association Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Report Basis</u>	<u>Client Matrix</u>	<u>Method</u>	<u>Prep Batch</u>
Geotechnical					
Analysis Batch:200-13416					
480-1363-3	BA-B28D-GT	T	Sediment	D422	
480-1363-4	BA-B28D-GT2	T	Sediment	D422	

Report Basis

T = Total

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes No

Chain of Custody Record

TAL-4124 (10/07)

Client: **Santec** Project Manager: **M. Spornsky** Chain of Custody Number: **191119**
 Address: **61 Commercial St** Telephone Number (Area Code)/Fax Number: **585-413-5266** Page: **1** of **1**
 City: **Rochester** Site Contact: **S. Reynolds Smith** Lab Contact: **R. VandeKette**
 Project Name and Location (State): **BEKINGTON Airport Plant (NY)** Carrier/Keyoff Number: _____

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			MO	SO	MS	MS	MS	MS	MS	MS	MS	MS			
BA-BA8D-GT	2/11/11	1411	✓												
BA-BA8D-GT2	2/11/11	1430	✓												

Sample Disposal: Return to Client Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)
 Non-Hazard Flammable Skin Irritant Poison B Unknown
 Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____
 1. Requested By: **[Signature]** Date: **02-02-11** Time: **15:45**
 2. Received By: **[Signature]** Date: **02-02-11** Time: **19:00**
 3. Requested By: _____ Date: _____ Time: _____
 Comments: **Standard Book - Category B Brocton**
 DISTRIBUTION: **None - Returned to Client with Receipt** (NY - Stays with the Sample. **Pink** - Field Copy)

h.2

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-1363-1

Login Number: 1363
List Number: 1
Creator: Keeton, Jamie

List Source: TestAmerica Burlington
List Creation: 02/05/11 01:34 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	619952
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4°C, IR GUN ID 96, CF -2
COC is present.	True	NO WSA REC'D
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Appendix G

TestAmerica Analytical Data Reports