TASK 210:
SURFICIAL SITE INVESTIGATION
Volume 1

Reconstruction of Route 1 (Boston Post Road)
From the Milford City Line to West of Lambert Road
Orange, Connecticut

ConnDOT Assignment No. 200-3618
ConnDOT Project No. 106-108

Prepared for:

State of Connecticut
Department of Transportation
Newington, Connecticut 06131

Prepared by:

Maguire Group Inc.
One Court Street
New Britain, Connecticut 06051

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1.0 INTRODUCTION

On behalf of the Connecticut Department of Transportation (ConnDOT), Maguire Group Inc. has conducted a Task 210 - Surficial Site Investigation in association with the Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road in Orange, Connecticut. The proposed construction project will involve the installation of dual left-turning lanes on U.S. Route 1 in Orange from the Milford City Line to 140 meters (approximately 460 feet) west of Lambert Road, for a total length of approximately 1,700 meters (5,700 feet). The proposed project will involve the full depth reconstruction of U.S Route 1 (Boston Post Road), the construction of exclusive turning lanes and traffic control improvements throughout the project length. Based upon a review of the proposed construction plans, it is anticipated that the project will involve rights-of-way taking, cut and fill activities, drainage structure improvements, and utility realignments.

This Task 210 - Surficial Site Investigation was conducted along Route 1 and its associated side-streets, in areas of anticipated construction and/or right-of-way activities, adjacent to properties that were identified as having a moderate or high risk designation in MGI's January, 1999 Task 110 – Corridor Land Use Evaluation report. Figure 1 depicts the project area.

The purpose of the Task 210 - Surficial Site Investigation was to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts to be encountered during construction. It is anticipated that a Task 310 Remedial Management Plan (RMP) will subsequently be prepared to assess construction related activities (i.e. proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.

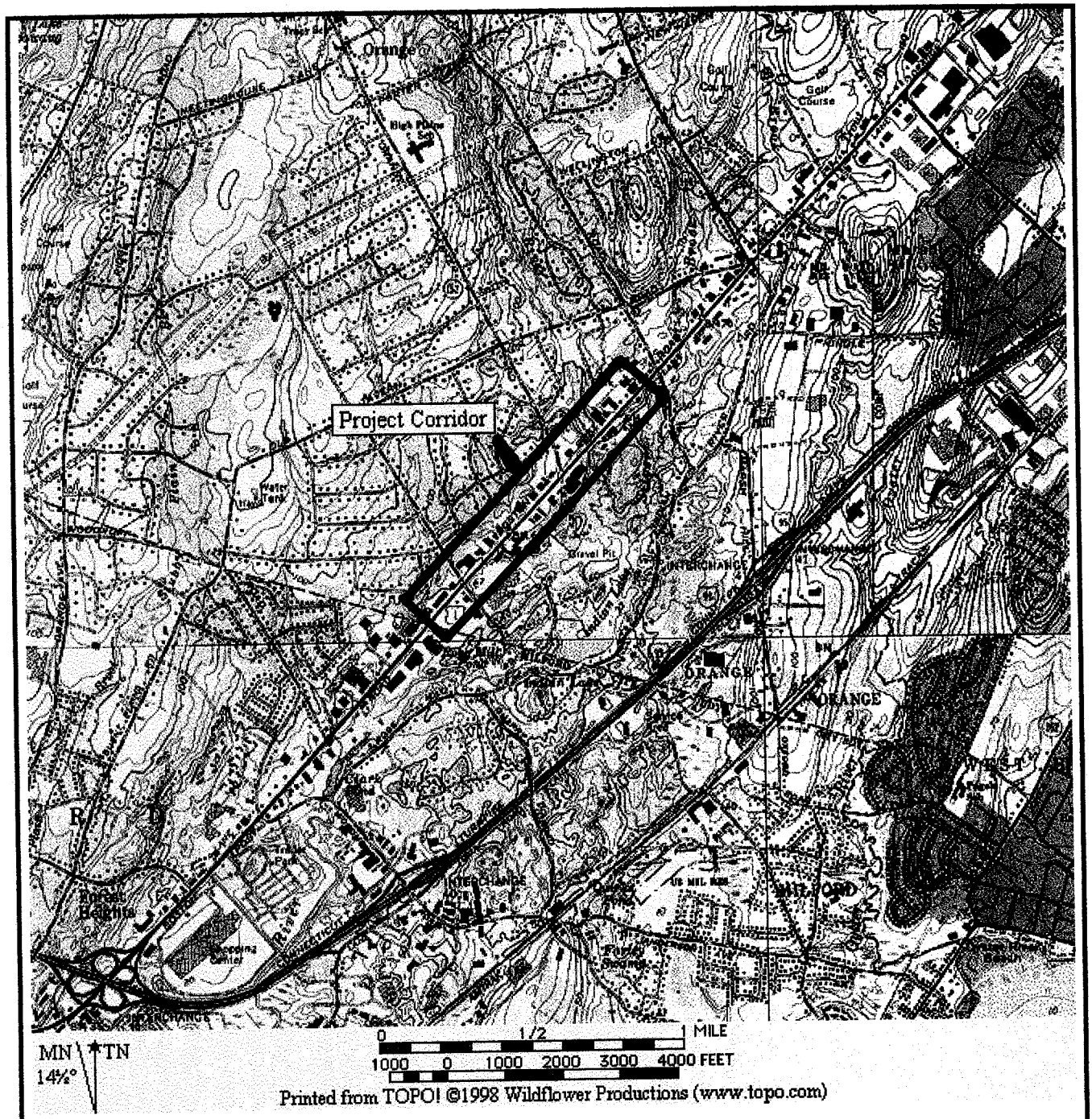

FIGURE 1 – SITE LOCATION PLAN

Reconstruction of Route 1 from the Milford City Line to West of Lambert Road

Orange, Connecticut

2.0 SITE DESCRIPTION

2.1 Background

The Task 210 - Surficial Site Investigation was conducted within the areas of proposed construction and/or right-of-way activities in the vicinity of twenty-four (24) moderate or high risk designated properties along Route 1. The following summarizes the twenty-four parcels and their locations.

569 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a sheet metal manufacturing company. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

560 Boston Post Road - This parcel was assigned a moderate risk because the property formerly contained a gasoline station and a truck-fueling terminal. According to the ConnDOT construction plans for the project, a partial strip take and cut and fill activities are proposed for this property.

524 - 540 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Butlers Laundromat, which was a generator of RCRA hazardous waste. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

525 - 545 Boston Post Road - This parcel was assigned a moderate risk because it formerly housed the Rockport Maritime Chemical Company. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

517 - 523 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained the Jones Motor Co. and Wooster Express trucking companies. According to the ConnDOT construction plans for the project, a partial strip take and cut and fill activities are proposed for this property.

516 - 518 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained the Welling Optical Goods manufacturer and a welding company. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

512 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained several metal heat treating businesses, including Thermo National Industries, which was listed as a generator of RCRA hazardous waste. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

507 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a construction company and a heavy equipment sales company. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

506 Boston Post Road - This parcel was assigned a moderate risk because the vacant building on the property formerly housed the Bar Plate Manufacturing Company. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

483 - 501 Boston Post Road - This parcel was assigned a moderate risk because it contains the Art Dry Cleaning business. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

500 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Camillo, Inc., which was a former generator of RCRA hazardous waste. It is not known the type of activity formerly conducted on the property. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

486 Boston Post Road - This parcel was assigned a moderate risk because the vacant garage building located on the property formerly housed a construction company, and it is believed that equipment repairs were formerly conducted on the property. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

464 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained an auto repair shop. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

459 - 465 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Commercial Plastics and Supply Corp., the Toledo Scale Division of Reliance Electric, and the General Cable Corporation. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

449 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Standard & Poors Publishing and Mathewson Tool Manufacturers. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

412 - 440 Boston Post Road - The Home Depot and Office Max parcel was assigned a moderate risk because it formerly contained the Yale Manufacturing Co. and Wilson Lee Printers. According to the ConnDOT construction plans for the project, a partial strip take and cut and fill activities are proposed for this property.

404 Boston Post Road - This parcel was assigned a moderate risk because it currently contains a Meineke Muffler Shop and a Sunoco gas station. The property also formerly housed an auto repair shop and a printing company. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

395 - 409 Boston Post Road - The Comp-USA parcel was assigned a moderate risk because it formerly contained a machine shop. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

390 - 400 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Jiffy Cleaners, a Saab automotive dealership, and a tire company. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

383 - 385 Boston Post Road - The New England Oven & Furnace parcel was assigned a moderate risk due to current on-site industrial activities and because it formerly contained the George Howard Metal Goods Manufacturers. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

370 - 380 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Latella Carting, which is listed as a former transporter or RCRA hazardous waste. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

369 - 371 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained the Connecticut Paper Company. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

367 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a tool and die company and a machine shop. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

350 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Spot Cleaners. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

The site area is depicted in the attached Figure 2 - Task 210 Project Area & Sampling Locations.

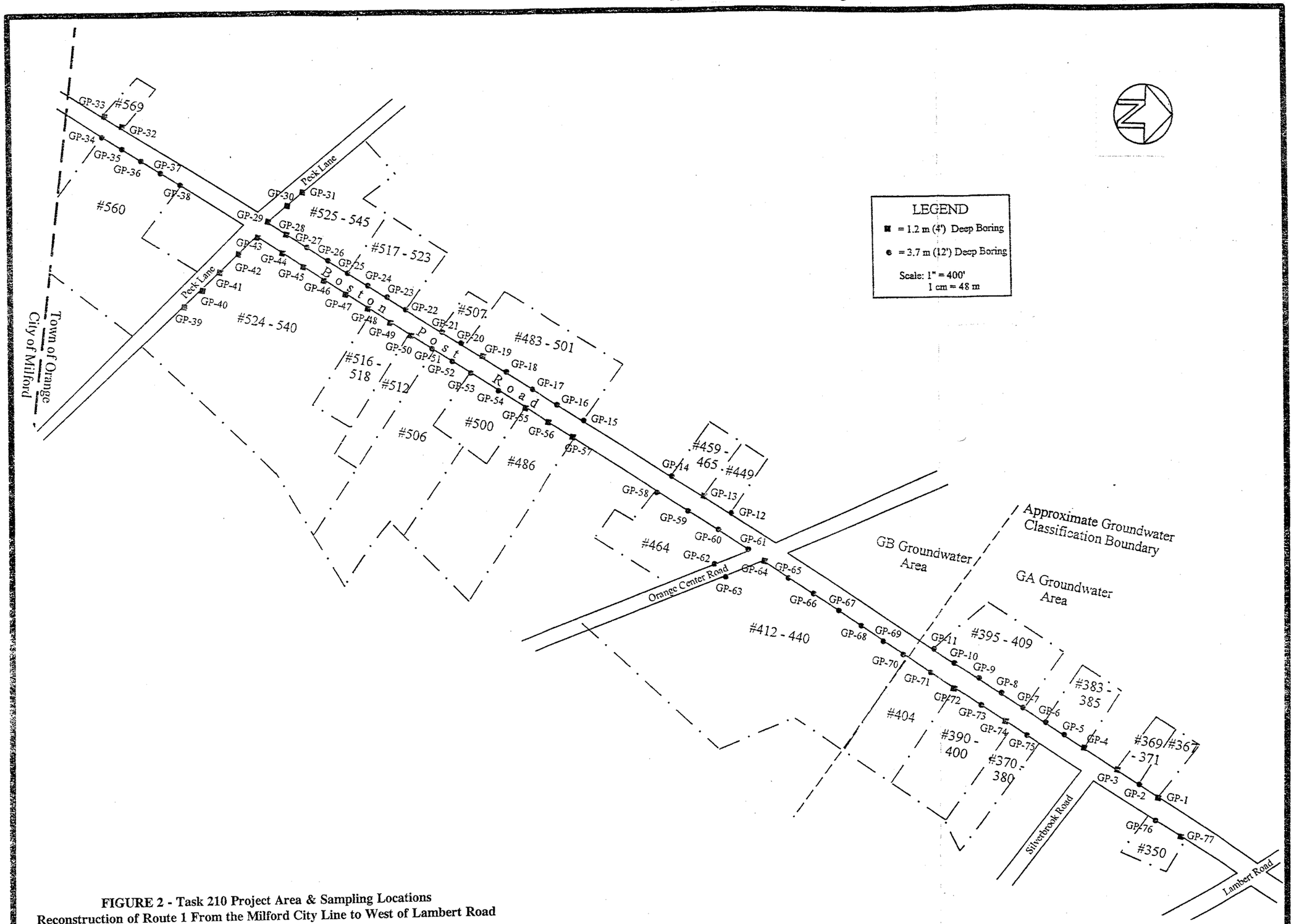

FIGURE 2 - Task 210 Project Area & Sampling Locations
Reconstruction of Route 1 From the Milford City Line to West of Lambert Road
Orange, Connecticut

3.0 LOCAL ENVIRONMENT & RECEPTORS

3.1 Groundwater

According to the Connecticut Department of Environmental Protection (CTDEP) 1993 Adopted Water Quality Classifications for the South Central Basin, the groundwater classification for the southwestern portion of the project corridor is "GB", while the groundwater classification for the northeastern portion of the project corridor is "GA". A "GB" groundwater classification indicates that the groundwater has been adversely impacted by waste discharges, spills or leaks of chemicals, or land use impacts. The groundwater is not suitable for direct human consumption without the need for treatment and a public water supply source is available. A "GA" groundwater classification indicates that the groundwater in the area may be within the influence of private and potential public water supply sources. The groundwater is considered suitable for direct human consumption without the need for treatment.

Groundwater was encountered in only two of the Geoprobe® soil borings (GP-10 & GP-20), at depths of 2.1 and 2.3 meters (7 and 7.5 feet) below grade.

All of the properties within the project corridor are connected to the public water supply system. In addition, all of the properties along Boston Post Road (Route 1) are connected to the municipal sewer system.

3.2 Geology

The United States Department of Agriculture Soil Conservation Service's 1992 "Surficial Materials Map of Connecticut" indicates that the soil in the vicinity of the Task 210 project area consists of the Charlton-Hollis formation. This soil unit is described as a brownish, sandy soil with a loamy substratum.

The Bedrock Geological Map of Connecticut, compiled by John Rodgers in 1985, indicates that the bedrock unit underlying the Site area is the Lower Member of the Maltby Lakes Metavolcanics, which is a gray to green, fine-grained schist or phyllite. A bluish-green fine-grained phyllite was encountered in all of the borings located within the project corridor area, at depths ranging from 0.9 to 3.7 meters (3 to 12 feet) below grade.

3.3 Regional Physiography

The general surficial topography is relatively flat, with a very gentle downward slope to the south/southeast. Based upon this, it is estimated that surface water runoff flows to the south/southeast. Silver Brook is located within the central portion of the project corridor. Silver Brook is classified as a Class "A" surface water body, which indicates that the water is known or presumed to meet Water Quality Criteria that support designated uses. The designated uses of surface waters with this classification include recreational, agricultural and industrial supply, as well as fish and wildlife habitat, and other legitimate uses including navigation.

4.0 SUBSURFACE INVESTIGATION

Based upon the current and past land use of the properties within the project corridor, a comprehensive sampling program was conducted within the proposed construction and right-of-way areas adjacent to the twenty-four (24) moderate or high risk designated properties discussed in Section 2.1. The following subsections detail the investigation.

4.1 Geoprobe® Soil Borings & Soil Sample Analyses

On December 6 to December 10, 1999, seventy-seven (77) Geoprobe® soil borings were advanced within proposed areas of construction and right-of-way activities adjacent to the twenty-four (24) moderate to high risk designated properties. The Geoprobe® borings were advanced by Logical Environmental Solutions, under the direction of MGI. The locations of the Geoprobe® soil borings are depicted on Figure 2 - Task 210 Project Area & Sampling Locations.

The Geoprobe® soil borings were advanced to a depth of 3.7 meters (12 feet) below grade, unless there was refusal on suspected bedrock or a cobble, or 1.2 meters (4 feet) below grade, depending upon the anticipated depth of excavation during construction in each area. The borings were spaced in an approximate 30.5 meter (100 foot) linear grid. Continuous soil samples were collected utilizing a 1.2 meter (4-foot) long, 5 centimeter (2-inch) diameter Macro Core Sampler with dedicated acetate liners. The soil samples were visually inspected in the field for staining, and described as to physical characteristics and soil type. In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID). Soil boring logs were generated in the field by Maguire field personnel. The boring logs denote the types of soil encountered, the depth to groundwater and/or bedrock, the total depth reached in each boring, and the highest observed PID reading. Copies of the boring logs are included at the end of this report in Appendix A.

Based upon field screening results and visual observations, one soil sample from each boring was placed in glassware supplied by Con-Test Analytical Laboratory, and stored in an ice-filled cooler. The first macro core sample from each boring was segregated and split into a 0 to 0.6 meter (0'-2') sample and a 0.6 to 1.2 meter (2'-4') sample. The shallow soil sample (0 to 0.6 meter/0' to 2' below grade) was selected for laboratory analyses if field screening and visual observation did not indicate the presence of contaminants in the other sample intervals. The analyses for each soil sample included volatile organic compounds (VOCs) utilizing EPA

Method 8260, total petroleum hydrocarbons (TPH) utilizing EPA Method 418.1, polynuclear aromatic hydrocarbons (PAHs) utilizing EPA Method 8270, total RCRA 8 metals, and SPLP RCRA 8 metals.

All Geoprobe® soil borings were back-filled and patched upon completion utilizing clean sand and/or hydrated bentonite. All down-hole sampling equipment was decontaminated in accordance with Maguire's August, 1999 Task 210 Surficial Site Investigation Work Plan.

4.2 Groundwater Sample Collection & Groundwater Analyses

Two (2) groundwater grab samples (GP-10 & GP-20) were collected from the only two boring locations in which groundwater was encountered. The groundwater grab samples were collected by placing dedicated PVC screen and riser casing into the borehole. Dedicated polyethylene tubing was inserted into the casing and groundwater was drawn through the tubing using a low-flow peristaltic pump. After approximately three well volumes were evacuated from the well, the groundwater samples were placed in glassware supplied by Con-Test Laboratory, and stored in an ice-filled cooler. The groundwater samples were analyzed for VOCs utilizing EPA Method 8260, TPH utilizing EPA Method 418.1, PAHs utilizing EPA Method 8270, and total RCRA 8 metals.

4.3 Project Quality Assurance/Quality Control Practices

To assess the collection of samples in the field in terms of the sampling techniques and decontamination procedures followed, quality control and quality assurance samples were collected on each day of sampling activities. Five field blank water samples were collected during the field investigation. The field blank samples were prepared by pouring laboratory supplied de-ionized water through an acetate liner and macro core cutting shoe, and collecting the resulting rinsate in appropriate sample containers. In addition, five trip blanks were

prepared by Con-Test Laboratory. The trip blank and field blank samples were stored with the daily samples in the sample cooler until subsequent delivery to the laboratory for analysis. The field blanks were analyzed for the same parameters specified for the daily samples. The trip blanks were analyzed for volatile organic compounds.

All samples collected in the field were stored in a manner that preserved the integrity of the sample chemistry. Samples intended for organic analyses were stored in an ice-filled cooler until delivery to the laboratory. Chain-of-Custody (COC) forms were filled out and accompanied all samples collected as a legal record of possession of the sample. The COC was initiated in the field and accompanied the containers during sample collection, transportation to the lab, analysis, and final disposal of the sample. All sampling equipment was either dedicated to a specific sample or was decontaminated prior to and between each use. Sampling equipment was not placed near solvents, gasoline, or other materials that may have impacted the integrity of the samples.

5.0 DISCUSSION OF SAMPLE RESULTS

5.1 Regulatory Criteria

The CTDEP adopted Remediation Standard Regulations (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-133q-1) as of January 31, 1996. The Remediation Standard Regulations (RSRs) apply to any site undergoing voluntary remediation under Public Acts 95-183 or 95-190, a transfer of an "establishment" under Public Act 95-183, or any site as ordered by the CTDEP Commissioner. The Regulations also outline the processes for establishing alternative site-specific numerical standards for certain sites, upon approval by the CTDEP.

The RSRs criteria applicable to the soil and groundwater sampled during this investigation are summarized below. The application of these RSRs to the results of the laboratory analyses from this investigation is discussed in subsection 5.2 and 5.3 of this section.

Soils Criteria: The RSRs are organized into two sets of criteria: the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The DEC and PMC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation. Please refer to the RSRs for a complete explanation of the Regulations.

Direct Exposure Criteria

The purpose of the Direct Exposure Criteria (DEC) is to protect human health from risks associated with the direct contact with or ingestion of various common soil contaminants. The DEC are applicable to soil within approximately 4.6 meters (15 feet) of the ground surface. Concentrations of contaminants are evaluated based upon mass-based analyses and different criteria are established for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of a land use restriction on the property. The DEC is not applicable to inaccessible soils, including soil more than 1.2 meters (4 feet) below the ground surface, 0.6 meters (2 feet) below pavement greater than 7.6 centimeters (3 inches) thick, or below an existing building, provided that an Environmental Land Use Restriction (ELUR) is placed in effect for the property.

Pollutant Mobility Criteria

The purpose of the Pollutant Mobility Criteria (PMC) is to evaluate the potential for contaminants to leach from the soil in concentrations that may degrade groundwater quality. Different numerical criteria are established for GA and GAA groundwater areas, versus GB groundwater areas. Since the site is located in a GA groundwater area, the most stringent criteria are applied for contaminants detected in the soil.

Groundwater Criteria. Contaminants in the groundwater are compared either to background quality or the Groundwater Protection Criteria (GWPC), the Volatilization Criteria, as well as the Surface Water Protection Criteria (SWPC). The GWPC, Volatilization Criteria, and SWPC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation.

Groundwater Protection Criteria

The purpose of the Groundwater Protection Criteria is to protect the groundwater quality in areas that have the potential to use groundwater as a drinking water resource (GA & GAA groundwater classification areas). Since the eastern portion of the project area is located within a GA groundwater area and a public water supply source is available, the GWPC apply to this area.

Volatilization Criteria

The purpose of the Volatilization Criteria standard is to ensure that volatile organic compounds (VOCs) in groundwater do not pose an unacceptable risk to human health due to the inhalation of VOCs that may enter into a structure on the property. The Volatilization Criteria only apply when impacted groundwater is located within 4.6 meters (15 feet) of the ground surface or any structure. Different criteria exist for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of an ELUR on the property. Since groundwater was located within 4.6 meters (15 feet) of the ground surface, the Volatilization Criteria apply to this Site.

Surface Water Protection Criteria

The purpose of the Surface Water Protection Criteria (SWPC) standards are to ensure that groundwater discharging to a surface water body will not adversely effect surface water quality. Since groundwater within the corridor likely discharges to the Silver Brook, the SWPC apply to contaminants detected in the groundwater.

5.2 Results of Soil Sample Analyses

Soil samples collected during the advancement of the Geoprobe® borings were sent to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for laboratory analyses. A summary of the laboratory results from the soil samples is presented in Tables 1(a) to 1(t), which are located at the end of this report, and copies of the soil sample analytical results are included in Appendix B. The following summarizes the results of the analyses conducted on the soil samples.

Varying concentrations of petroleum hydrocarbons (TPH) were detected in all of the borings from Below Detectable Limits (BDL) to 4,970 parts per million (ppm). The soil samples from borings GP-7 (513 ppm), GP-8 (752 ppm), GP-28 (1,880 ppm), GP-29 (4,970 ppm), GP-43 (1,110 ppm), and GP-60 (611 ppm) contained TPH at concentrations that exceed the Residential Direct Exposure Criteria (DEC) of 500 ppm. The GP-29 soil sample also contained TPH at a concentration that exceeds the Commercial/Industrial DEC and GB groundwater PMC of 2,500 ppm. The GP-7 and GP-8 soil samples also contained concentrations of TPH that exceed the GA groundwater PMC of 500 ppm.

Twenty-seven of the seventy-seven soil samples analyzed as part of this investigation contained detectable concentrations of volatile organic compounds (VOCs). The compound naphthalene was detected in the samples collected from GP-3 (1,920 parts per billion [ppb]), GP-4 (20 ppb), GP-5 (347 ppb), and GP-11 (13 ppb). However, the concentrations detected did not exceed any applicable CTDEP RSRs. The compound 1,2,4-trimethylbenzene was detected in the samples collected from GP-3 (7 ppb) and GP-5 (6 ppb). The concentrations detected did not exceed any applicable CTDEP RSRs.

Methylene chloride was detected in the soil samples collected from GP-12 (205 ppb), GP-14 (324 ppb), GP-15 (230 ppb), GP-16 (185 ppb), GP-17 (182 ppb), GP-18 (129 ppb), GP-19 (131 ppb), GP-20 (156 ppb), GP-33 (102 ppb), GP-34 (85 ppb), GP-35 (82 ppb), GP-37 (239

ppb), GP-49 (105 ppb), GP-52 (180 ppb), GP-53 (128 ppb), GP-54 (86 ppb), GP-56 (76 ppb), GP-58 (137 ppb), GP-59 (81 ppb), GP-64 (95 ppb), and GP-67 (75 ppb). The concentration of methylene chloride detected in the samples did not exceed any applicable CTDEP RSRs. The laboratory acknowledged that the widespread presence of methylene chloride in the twenty-one soil samples may be due to laboratory contamination.

Acetone was detected in the soil samples collected from GP-25 (308 ppb) and GP-70 (334 ppb). The concentrations detected do not exceed any applicable CTDEP RSRs.

Several polynuclear aromatic hydrocarbon (PAH) compounds were detected throughout the project corridor at varying concentrations. Total PAH concentrations ranged from ND to 242.29 ppm. Twenty-five samples contained concentrations of PAH compounds that exceed applicable CTDEP RSRs. The GP-3 soil sample contained the compounds benzo(a)anthracene (7.05 ppm), benzo(a)pyrene (6.45 ppm), benzo(b)fluoranthene (9.27 ppm), benzo(k)fluoranthene (7.82 ppm), chrysene (7.61 ppm), fluoranthene (14.8 ppm), indeno(1,2,3-cd)pyrene (2.41 ppm), 2-methylnaphthalene (1.57 ppm), phenanthrene (23.8 ppm), and pyrene (21.5 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compounds benzo(a)pyrene and benzo(b)fluoranthene were also detected at concentrations that exceed their respective Commercial/Industrial DEC.

The GP-4 soil sample contained the compounds benzo(a)anthracene (2.45 ppm), benzo(a)pyrene (3.01 ppm), benzo(b)fluoranthene (4.3 ppm), benzo(k)fluoranthene (3.07 ppm), chrysene (3.03 ppm), and pyrene (6.95 ppm) at concentrations that exceed their respective GA PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-5 soil sample contained the compounds benzo(a)anthracene (9.9 ppm), benzo(a)pyrene (9.2 ppm), benzo(b)fluoranthene (25.9 ppm), benzo(k)fluoranthene (6.68 ppm), chrysene (9.48 ppm), fluoranthene (16.3 ppm), indeno(1,2,3-cd)pyrene (3.1 ppm), 2-methylnaphthalene (1.16 ppm), phenanthrene (12.3 ppm), and pyrene (26.7 ppm) at concentrations that exceed their respective GA PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compounds benzo(a)anthracene, benzo(a)pyrene and benzo(b)fluoranthene were also detected at concentrations that exceed their respective Commercial/Industrial DEC.

The GP-14 soil sample contained the compounds benzo(a)anthracene (2.79 ppm), benzo(a)pyrene (3.17 ppm), benzo(b)fluoranthene (3.93 ppm), benzo(k)fluoranthene (1.71 ppm), chrysene (3.7 ppm), and indeno(1,2,3-cd)pyrene (2.13 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-15 soil sample contained the compounds benzo(a)pyrene (1.25 ppm), benzo(b)fluoranthene (1.33 ppm), benzo(k)fluoranthene (1.23 ppm), chrysene (1.41 ppm), and indeno(1,2,3-cd)pyrene (1.04 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-17 soil sample contained the compounds benzo(a)anthracene (1.01 ppm), benzo(a)pyrene (1.31 ppm), benzo(b)fluoranthene (1.49 ppm), benzo(k)fluoranthene (1.07 ppm), and chrysene (1.51 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were

detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-20 soil sample contained the compounds benzo(a)anthracene (1.36 ppm), benzo(a)pyrene (1.72 ppm), benzo(b)fluoranthene (2.03 ppm), benzo(k)fluoranthene (1.15 ppm), chrysene (1.74 ppm), and indeno(1,2,3-cd)pyrene (1.14 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-24 soil sample contained the compounds benzo(a)anthracene (2.03 ppm), benzo(a)pyrene (2.03 ppm), benzo(b)fluoranthene (2.57 ppm), benzo(k)fluoranthene (1.37 ppm), chrysene (2.67 ppm), and indeno(1,2,3-cd)pyrene (1.4 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-28 soil sample contained the compounds benzo(a)anthracene (4.73 ppm), benzo(b)fluoranthene (5.47 ppm), chrysene (7.1 ppm), and indeno(1,2,3-cd)pyrene (3.4 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC.

The GP-30 and GP-39 soil samples contained the compound benzo(b)fluoranthene (2.18 ppm, and 1.22 ppm, respectively) at concentrations that exceed its GB PMC and Residential DEC.

The GP-40 soil sample contained the compounds benzo(a)anthracene (1.49 ppm), benzo(a)pyrene (1.52 ppm), benzo(b)fluoranthene (1.92 ppm), benzo(k)fluoranthene (1.21 ppm), and chrysene (1.66 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-43 soil sample contained the compounds benzo(a)anthracene (1.74 ppm), benzo(a)pyrene (2.77 ppm), benzo(b)fluoranthene (3.21 ppm), benzo(k)fluoranthene (2.13 ppm), and chrysene (1.89 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-44 soil sample contained the compounds benzo(a)anthracene (3.84 ppm), benzo(a)pyrene (4.31 ppm), benzo(b)fluoranthene (4.99 ppm), benzo(k)fluoranthene (3.84 ppm), and chrysene (3.83 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-52 soil sample contained the compounds benzo(a)anthracene (8.85 ppm), benzo(a)pyrene (7.88 ppm), benzo(b)fluoranthene (11.4 ppm), benzo(k)fluoranthene (8.63 ppm), chrysene (10.3 ppm), and indeno(1,2,3-cd)pyrene (2.73 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were

detected at concentrations that exceed their respective Residential DEC. The compounds benzo(a)anthracene, benzo(a)pyrene and benzo(b)fluoranthene were also detected at concentrations that exceed their respective Commercial/Industrial DEC.

The GP-53 soil sample contained the compounds benzo(a)anthracene (12.1 ppm), benzo(a)pyrene (10.3 ppm), benzo(b)fluoranthene (18.7 ppm), benzo(k)fluoranthene (10.4 ppm), chrysene (14.2 ppm), and indeno(1,2,3-cd)pyrene (2.13 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compounds benzo(a)anthracene, benzo(a)pyrene and benzo(b)fluoranthene were also detected at concentrations that exceed their respective Commercial/Industrial DEC.

The GP-54 soil sample contained the compounds benzo(a)anthracene (6.73 ppm), benzo(a)pyrene (6.77 ppm), benzo(b)fluoranthene (11.6 ppm), benzo(k)fluoranthene (5.52 ppm), chrysene (7.67 ppm), and indeno(1,2,3-cd)pyrene (2.51 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compounds benzo(a)pyrene and benzo(b)fluoranthene were also detected at concentrations that exceed their respective Commercial/Industrial DEC.

The GP-55 soil sample contained the compounds benzo(a)anthracene (2.91 ppm), benzo(a)pyrene (2.74 ppm), benzo(b)fluoranthene (4.46 ppm), benzo(k)fluoranthene (3.87 ppm), chrysene (2.99 ppm), and indeno(1,2,3-cd)pyrene (1.22 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-58 soil sample contained the compounds benzo(a)anthracene (1.62 ppm), benzo(a)pyrene (1.91 ppm), benzo(b)fluoranthene (2.73 ppm), benzo(k)fluoranthene (2.07 ppm), and chrysene (2.01 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-59 soil sample contained the compounds benzo(a)anthracene (1.06 ppm), benzo(a)pyrene (1.26 ppm), benzo(b)fluoranthene (1.71 ppm), benzo(k)fluoranthene (1.28 ppm), and chrysene (1.24 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-62 soil sample contained the compound benzo(b)fluoranthene (1.3 ppm) at a concentration that exceeds its respective GB PMC. The GP-68 soil sample contained the compounds benzo(a)anthracene (1.02 ppm), benzo(a)pyrene (1.32 ppm), benzo(b)fluoranthene (1.4 ppm), benzo(k)fluoranthene (1.2 ppm), and chrysene (1.35 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-70 soil sample contained the compounds benzo(a)anthracene (22.9 ppm), benzo(a)pyrene (23.3 ppm), benzo(b)fluoranthene (28.0 ppm), benzo(k)fluoranthene (15.2 ppm), chrysene (28.3 ppm), and indeno(1,2,3-cd)pyrene (14.5 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were

detected at concentrations that exceed their respective Residential DEC. The compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were also detected at concentrations that exceed their respective Commercial/Industrial DEC.

The GP-72 soil sample contained the compounds benzo(a)anthracene (4.94 ppm), benzo(b)fluoranthene (7.88 ppm), chrysene (7.85 ppm), fluoranthene (12.2 ppm), indeno(1,2,3-cd)pyrene (4.35 ppm), phenanthrene (6.66 ppm), and pyrene (11.0 ppm) at concentrations that exceed their respective GA PMC. In addition, the compounds benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(b)fluoranthene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-74 soil sample contained the compounds benzo(b)fluoranthene (1.31 ppm) and indeno(1,2,3-cd)pyrene (1.01 ppm), phenanthrene (6.66 ppm), and pyrene (11.0 ppm) at concentrations that exceed their respective GA PMC and Residential DEC.

Total concentrations of the metals arsenic, barium, cadmium, chromium, lead, mercury, and selenium were detected in the soil samples throughout the project corridor. Total arsenic was detected at concentrations ranging from Not Detected (ND) to 36.9 ppm. Arsenic was detected at concentrations that exceed its Residential and Commercial/Industrial DEC of 10 ppm in the following soil samples: GP-1 (14.6 ppm), GP-2 (16.2 ppm), GP-3 (11.8 ppm), GP-4 (17.1), GP-5 (13.1 ppm), GP-7 (13.2 ppm), GP-16 (11.1 ppm), GP-17 (36.9 ppm), GP-18 (13.9 ppm), GP-19 (14.6 ppm), GP-22 (11.1 ppm), GP-25 (10.1 ppm), GP-26 (10.4 ppm), GP-27 (11.4 ppm), GP-39 (12.0 ppm), GP-40 (12.9 ppm), GP-41 (15.6 ppm), GP-43 (12.2 ppm), GP-44 (18.0 ppm), GP-46 (10.3 ppm), GP-47 (26.7 ppm), GP-48 (16.2 ppm), GP-56 (21.4 ppm), GP-57 (18.4 ppm), GP-65 (11.5 ppm), and GP-66 (13.6 ppm).

Leachable arsenic, barium, lead and mercury (via SPLP) were detected at varying concentrations throughout the project corridor. Leachable lead was detected at concentrations that exceed the GA PMC of 0.015 ppm in the following samples: GP-4 (0.02 ppm), GP-7 (0.03 ppm), GP-70 (0.06 ppm), GP-72 (0.02 ppm), and GP-74 (0.02 ppm). Leachable lead was detected at concentrations that exceed the GB PMC of 0.15 ppm in the following samples: GP-17 (0.75 ppm) and GP-69 (0.42 ppm).

5.3 Results of Groundwater Grab Sample Analyses

Groundwater grab samples collected during the advancement of the Geoprobe® borings were sent to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for laboratory analyses. A summary of the laboratory results from the groundwater grab samples is presented in Table 2, which is located at the end of this report, and copies of the groundwater grab sample analytical results are included in Appendix C. The following summarizes the results of the analyses conducted on the groundwater grab samples.

The groundwater samples GP-10 and GP-20 did not contain detectable concentrations of petroleum hydrocarbons or PAHs. The GP-10 groundwater sample contained the VOCs methylene chloride (33.3 ppb), ethyl benzene (0.7 ppb), and xylenes (4.0 ppb). The concentration of methylene chloride detected in the sample exceeded the Groundwater Protection Criteria concentration of 5.0 ppb. However, the presence of methylene chloride in the sample is likely due to laboratory contamination.

The GP-10 sample contained the metals barium (2.62 ppm), cadmium (0.007 ppm), chromium (3.23 ppm) and mercury (000066 ppm). The concentrations of barium, cadmium, and chromium detected exceed their respective Groundwater Protection Criteria. The concentrations of cadmium, chromium, and mercury detected also exceed their respective Surface Water Protection Criteria. The GP-20 groundwater sample also contained the metal lead (0.06 ppm) at a concentration that exceeds its Surface Water Protection Criteria.

5.4 Quality Assurance/Quality Control Samples

The five field blank (FB) and trip blank (TB) water samples were collected on each day of sampling activities. The field blank samples were analyzed for VOCs, TPH, PAHs, and total RCRA 8 metals. In addition, five trip blank samples were analyzed for VOCs. The metal cadmium was detected at an extremely low concentration of 0.0003 ppm in the FB-3 field blank sample, and silver was detected at an extremely low concentration of 0.009 ppm in the FB-5 field blank sample. The presence of the small cadmium and silver concentrations may be due to field contamination or the metals may have been present in the laboratory-supplied water. No other contaminants were detected above the laboratory detection limits in any of the blank samples.

Copies of the analytical reports associated with the quality assurance/quality control samples are included in Appendix D.

6.0 DISCUSSION OF AFFECTED RESOURCES

6.1 Areas of Environmental Concern

Based upon the results of laboratory analyses performed on soil samples for this Task 210 investigation, eleven (11) areas of environmental concern (AOEC) have been identified. The location of the areas within the project corridor is discussed in the following section.

AOEC #1: Borings GP-1, GP-2 & GP-3: 367-371 Boston Post Road

Analytical results from the soil sample collected from borings GP-1, GP-2, and GP-3 indicate the presence of total arsenic contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meter (0 to 4 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC. Analytical results from the soil sample collected

from boring GP-3 indicates the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. In addition, leachable lead was also detected at a slightly elevated concentration that exceeds the GA PMC.

AOEC #2: Borings GP-4 & GP-5: 383 - 385 Boston Post Road

Analytical results from the soil samples collected from borings GP-4 and GP-5 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meter (0 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. Total arsenic was also detected at elevated concentrations that exceed that Residential and Commercial/Industrial DEC.

AOEC #3: Borings GP-7, GP-8 & GP-10: 395 - 409 Boston Post Road

Analytical results from the soil samples collected from boring GP-7 and GP-8 indicate the presence of total petroleum hydrocarbons (TPH) at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meter (0 to 4 feet) below grade. The contamination detected exceeds the GA PMC and Residential DEC. The GP-7 sample also contained total arsenic at a slightly elevated concentration in shallow soils (0 to 0.6 meter/ (0' to 2') that exceeds the Residential and Commercial/Industrial DEC. In addition, the GP-7 soil sample contained leachable lead at a slightly elevated concentration that exceeds the GA PMC. The groundwater sample collected from boring GP-10 indicated the presence of methylene chloride, barium, cadmium, and chromium at concentrations that exceed the Groundwater Protection Criteria. In addition, cadmium, chromium, and mercury were detected at concentrations that exceed the Surface Water Protection Criteria.

AOEC #4: Boring GP-14: 459 - 465 Boston Post Road

Analytical results from the soil sample collected from boring GP-14 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC.

AOEC #5: Borings GP-15, GP-16, GP-17, GP-18, GP-19 & GP-20: 483-507 Boston Post Rd.

Analytical results from the soil samples collected from borings GP-15, GP-17 and GP-20 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meter (0 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. Analytical results from the soil samples collected from borings GP-16, GP-17, GP-18, and GP-19 indicate the presence of total arsenic contamination at elevated concentrations in soil ranging from 0 – 1.8 meters (0 to 6 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC. Leachable lead was also detected in the 0.6 to 1.2 meter (2 to 4 foot) sample collected from boring GP-17, at a concentration that exceeds the GB PMC. The GP-20 groundwater sample also contained the metal lead (0.06 ppm) at a concentration that exceeds its Surface Water Protection Criteria.

AOEC #6: Borings GP-22, GP-24, GP-25, GP-26, GP-27, GP-28, GP-29 & GP-30: 517-545 Boston Post Road

Analytical results from the soil samples collected from borings GP-24, GP-28, and GP-30 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. In addition, the soil samples from GP-28 and GP-29 also contained TPH at concentrations that exceed the GB PMC and Residential and Commercial/Industrial DEC in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. Total arsenic was

detected at slightly elevated concentrations in soil ranging from 0 to 2.4 meters (0 to 8 feet) below grade in the samples collected from GP-22, GP-25, GP-26, and GP-27. The contamination detected exceeds the Residential and Commercial/Industrial DEC. In addition, the groundwater sample collected from GP-20 contained total lead at a concentration that exceeds the Surface Water Protection Criteria.

AOEC #7: Borings GP-39, GP-40, GP-41, GP-43, GP-44, GP-46, GP-47 & GP-48: 524-540 Boston Post Road

Analytical results from the soil samples collected from borings GP-39, GP-40, GP-43 and GP-44 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. In addition, the soil sample from GP-43 contained TPH at a concentration that exceeds the Residential DEC in shallow soil ranging from 0.6 to 1.2 meters (2 to 4 feet) below grade. Total arsenic was detected at slightly elevated concentrations in soil ranging from 0 to 1.2 meters (0 to 4 feet) below grade in the samples collected from GP-39, GP-40, GP-41, GP-43, GP-44, GP-46, GP-47, and GP-48. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #8: Borings GP-52, GP-53, GP-54, GP-55, GP-56 & GP-57: 486 to 506 Boston Post Road

Analytical results from the soil samples collected from borings GP-52, GP-53, GP-54 and GP-55 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. Total arsenic was detected at slightly elevated concentrations in soil ranging from 0 to 0.6 meters (0 to 2 feet) below grade in the samples collected from GP-56 and GP-57. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

below grade in the samples collected from GP-22, GP-25, GP-26, and GP-27. The contamination detected exceeds the Residential and Commercial/Industrial DEC. In addition, the groundwater sample collected from GP-20 contained total lead at a concentration that exceeds the Surface Water Protection Criteria.

AOEC #7: Borings GP-39, GP-40, GP-41, GP-43, GP-44, GP-46, GP-47 & GP-48: 524-540 Boston Post Road

Analytical results from the soil samples collected from borings GP-39, GP-40, GP-43 and GP-44 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. In addition, the soil sample from GP-43 contained TPH at a concentration that exceeds the Residential DEC in shallow soil ranging from 0.6 to 1.2 meters (2 to 4 feet) below grade. Total arsenic was detected at slightly elevated concentrations in soil ranging from 0 to 1.2 meters (0 to 4 feet) below grade in the samples collected from GP-39, GP-40, GP-41, GP-43, GP-44, GP-46, GP-47, and GP-48. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #8: Borings GP-52, GP-53, GP-54, GP-55, GP-56 & GP-57: 486 to 506 Boston Post Road

Analytical results from the soil samples collected from borings GP-52, GP-53, GP-54 and GP-55 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. Total arsenic was detected at slightly elevated concentrations in soil ranging from 0 to 0.6 meters (0 to 2 feet) below grade in the samples collected from GP-56 and GP-57. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #9: Borings GP-58, GP-59, GP-60 & GP-62: 464 Boston Post Road

Analytical results from the soil samples collected from borings GP-58, GP-59, and GP-62 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. In addition, the soil sample from GP-60 contained TPH at a concentration that exceeds the Residential DEC in shallow soil ranging from 0.6 to 1.2 meters (2 to 4 feet) below grade.

AOEC #10: Borings GP-65, GP-66, GP-68, GP-69 & GP-70: 412 - 440 Boston Post Road

Analytical results from the soil samples collected from borings GP-68 and GP-70 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meters (2 to 4 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. Total arsenic was detected at slightly elevated concentrations in soil ranging from 0 to 1.8 meters (0 to 6 feet) below grade in the samples collected from GP-65 and GP-66. The contamination detected exceeds the Residential and Commercial/Industrial DEC. Leachable lead was detected in soil ranging from 0 to 1.2 meters (0 to 4 feet) below grade in the samples collected from GP-69 and GP-70, at concentrations that exceed the GB PMC.

AOEC #11: Borings GP-72 & GP-74: 390 - 400 Boston Post Road

Analytical results from the soil samples collected from borings GP-72 and GP-74 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meters (0 to 2 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC. Leachable lead was also detected at slightly elevated concentrations that exceed the GA PMC.

7.0 RECOMMENDATIONS

The results of the Task 210 – Surficial Site Investigation for the Reconstruction of Route 1 from the Milford City Line to West of Lambert Road in Orange, Connecticut indicate the presence of semi-volatile (PAH), total arsenic, leachable lead, and TPH contamination in soils throughout the project corridor ranging from 0 to 2.4 meters (0 to 8 feet) below grade, at concentrations that slightly to moderately exceed the applicable RSR criteria. In addition, results of the groundwater samples collected indicate the presence of VOC, barium, cadmium, chromium, lead and mercury contamination that exceed the applicable RSRs. Eleven Areas of Environmental Concern (AOEC) have been identified within the project corridor. Special considerations for treatment/disposal and worker health and safety must be given to these areas in order to ensure compliance with all local, State and Federal laws. A Task 310 Remedial Management Plan is therefore recommended for all areas of construction associated with the Reconstruction of Route 1 from the Milford City Line to West of Lambert Road project.

8.0 LIMITATIONS

All work product and reports provided by Maguire Group Inc. (MGI) in connection with the performance of this Task 210 - Surficial Site Investigation are subject to the following limitations:

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services provided to ConnDOT.

2. In preparing this report, MGI has relied on certain information provided by State and local officials and information and representations made by other parties referenced therein, and on information contained in the files of State and/or local agencies made available to MGI at the time of this investigation. To the extent that such files are missing, incomplete or not provided to MGI, MGI is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, MGI did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this investigation.

3. The conclusions and recommendations contained in this report are based in part upon the data from subsurface explorations. The nature and extent of variations between these explorations may not become evident until further explorations are completed. If variations or other latent conditions become evident, it will be necessary to re-evaluate the conclusions and recommendations of this report.

4. The water level readings made for this investigation were made at the times and conditions stated on the boring logs. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, passage of time and other factors.

Should additional data become available in the future, these data should be reviewed by MGI, and the conclusions and recommendations presented herein modified accordingly.

5. Where quantitative laboratory analyses have been conducted by an outside certified laboratory, MGI has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these tests.

6. If the conclusions and recommendations contained in this report are based, in part, upon various types of chemical data then the conclusions and recommendations are contingent upon the validity of such data. These data have been reviewed and interpretations made in the report. It should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by MGI and the conclusions and recommendations presented herein modified accordingly.

7. Chemical analyses were performed for specific parameters during the course of this investigation, as described in the text. However, it should be noted that testing for all known chemical constituents was not performed. The conclusions and recommendations contained in this report are based only upon the chemical constituents for which testing was accomplished.

The following qualifications apply to the undersigned's opinion:

The activities described and opinions included herein are based on information gathered during this exploratory site investigation which was limited in scope in adherence to the terms of our agreement. The professional opinion provided herein is based on the information described in this report.

The information contained herein was prepared for the use of ConnDOT solely in conjunction with the task descriptions for this assignment. The conclusions and recommendations set forth in this report are based on site conditions at the time of the investigation. Future studies and findings could change the contents of this report. The professional opinions presented in this report have been developed by using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental engineering consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional opinions included in this report.

Prepared by:	Approved by:	Reviewed by:
Cindy Knight Logical Env. Solutions	David R. Stock, P.E. Program Manager	Jane Witherell, P.E., L.E.P. Project Engineer

TABLES

TABLE 1(a) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-1 0-0.6m 0'-2'	GP-2 0.6-1.2m 2'-4'	GP-3 0-0.6m 0'-2'	GP-4 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	32.1	BDL	70.3	178	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Naphthalene	ND	ND	1,920	20	5,600 ppb	1,000,000/2,500,000 ppb
1,2,4-Trimethylbenzene	ND	ND	7	ND	7,000 ppb	500,000/1,000,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	3.09	BDL	8.4 ppm	1,000/2,500 ppm
Anthracene	ND	ND	2.51	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.35	BDL	***7.05***	***2.45***	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	ND	ND	***6.45***	***3.01***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.6	ND	***9.27***	***4.3***	**1 ppm**	**1/7.8 ppm**
Benzo(k)fluoranthene	BDL	ND	***7.82***	***3.07***	**1 ppm**	8.4/78 ppm
Chrysene	BDL	ND	***7.61***	***3.03***	**1 ppm**	84/780 ppm
Fluoranthene	0.81	BDL	***14.8***	3.97	**5.6 ppm**	1,000/2,500 ppm
Fluorene	ND	ND	3.89	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	ND	***2.41***	ND	**1 ppm**	1/7.8 ppm
2-Methylnaphthalene	ND	ND	***1.57***	ND	**0.98 ppm**	474,2,500 ppm
Naphthalene	ND	ND	3.83	ND	5.6 ppm	1,000/2,500 ppm
Phenanthrene	0.59	ND	***23.8***	2.29	**4 ppm**	1,000/2,500 ppm
Pyrene	BDL	BDL	***21.5***	***6.95***	**4 ppm**	1,000/2,500 ppm
Total PAHs	2.35	0	115.6	29.07		
Total RCRA 8 Metals - ppm						
Arsenic	***14.6***	***16.2***	***11.8***	***17.1***		**10/10 ppm**
Barium	24.6	29.6	33.4	34.7		4,700/140,000 ppm
Cadmium	0.06	ND	0.28	ND		34/1,000 ppm
Chromium	13.5	14.4	11.6	19.6		100/100 ppm
Lead	23.3	18.9	134	354		500/1,000 ppm
Mercury	0.027	0.03	0.255	0.044		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.08	0.73	0.12	0.21	1.0 ppm	
Lead	ND	ND	ND	***0.02***	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(b) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-5 0.6m-1.2 2'-4'	GP-6 1.2-2.1m 4'-7'	GP-7 0-0.6m 0'-2'	GP-8 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	97.9	BDL	***513***	***752***	**500 ppm**	**500**/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Naphthalene	347	ND	ND	ND	5,600 ppb	1,000,000/2,500,000 ppb
1,2,4-Trimethylbenzene	6	ND	ND	ND	7,000 ppb	500,000/1,000,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	3.41	ND	ND	ND	8.4 ppm	1,000/2,500 ppm
Anthracene	2.81	ND	ND	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	***9.9***	ND	BDL	ND	**1 ppm**	**1/7.8 ppm**
Benzo(a)pyrene	***9.2***	ND	ND	ND	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***25.9***	ND	0.85	ND	**1 ppm**	**1/7.8 ppm**
Benzo(g,h,i)perylene	2.33	ND	ND	ND	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	***6.68***	ND	BDL	ND	**1 ppm**	8.4/78 ppm
Chrysene	***9.48***	ND	BDL	ND	**1 ppm**	84/780 ppm
Fluoranthene	***16.3***	ND	0.89	ND	**5.6 ppm**	1,000/2,500 ppm
Fluorene	3.14	ND	ND	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	***3.1***	ND	ND	ND	**1 ppm**	1/7.8 ppm
2-Methylnaphthalene	***1.16***	ND	ND	ND	**0.98 ppm**	474,2,500 ppm
Naphthalene	2.24	ND	ND	ND	5.6 ppm	1,000/2,500 ppm
Phenanthrene	***12.3***	ND	BDL	ND	**4 ppm**	1,000/2,500 ppm
Pyrene	***26.7***	ND	BDL	BDL	**4 ppm**	1,000/2,500 ppm
Total PAHs	134.65	0	1.74	0		
Total RCRA 8 Metals - ppm						
Arsenic	***13.1***	7.68	***13.2***	10.0		**10/10 ppm**
Barium	29.3	15.5	31.3	15.7		4,700/140,000 ppm
Cadmium	0.12	ND	ND	ND		34/1,000 ppm
Chromium	14.4	9.61	11.7	7.4		100/100 ppm
Lead	85.5	9.19	19.2	12.3		500/1,000 ppm
Mercury	0.047	ND	0.019	0.011		20/610 ppm
Selenium	ND	ND	ND	6.16		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.16	0.18	0.53	0.19	1.0 ppm	
Lead	ND	ND	***0.03***	ND	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(c) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-9 0.6-1.2m 2'-4'	GP-10 0.6-1.2m 2'-4'	GP-11 1.2-2.4m 4'-8'	GP-12 1.2-1.8m 4'-6'	CTDEP Pollutant Mobility Criteria – GA/GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	BDL	BDL	21.6	500/2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	ND	ND	ND	205	1,000 ppb (GB)	82,000/760,000 ppb
Naphthalene	ND	ND	13	ND	7,000 ppb (GA)	500,000/1,000,000 ppb
PAHs - EPA Method 8270 (ppm)	ND	ND	ND	ND		
Total RCRA 8 Metals – ppm						
Arsenic	7.54	9.23	6.44	ND		10/10 ppm
Barium	12.2	16.6	9.81	17.5		4,700/140,000 ppm
Cadmium	ND	ND	ND	0.12		34/1,000 ppm
Chromium	8.55	8.94	9.7	11.8		100/100 ppm
Lead	4.84	5.86	4.61	13.5		500/1,000 ppm
Mercury	ND	ND	ND	ND		20/610 ppm
Selenium	ND	ND	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.16	0.33	0.33	0.1	1.0/10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(d) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-13 0.6-1.2m 2'-4'	GP-14 0.6-1.2m 2'-4'	GP-15 0-0.6m 0'-2'	GP-16 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	48.5	58.5	70.1	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	ND	324	230	185	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	1.17	BDL	ND	84 ppm	1,000/2,500 ppm
Anthracene	ND	0.69	ND	ND	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	***2.79***	0.91	0.42	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	ND	***3.17***	***1.25***	BDL	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	ND	***3.93***	***1.33***	0.65	**1 ppm**	1/7.8 ppm
Benzo(g,h,i)perylene	ND	1.97	1.01	BDL	42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	ND	***1.71***	***1.23***	BDL	**1 ppm**	8.4/78 ppm
Chrysene	ND	***3.7***	***1.41***	BDL	**1 ppm**	84/780 ppm
Dibenz(a,h)anthracene	ND	0.72	BDL	ND	1 ppm	1 ppm
Fluoranthene	ND	4.83	2.08	1.01	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	***2.13***	***1.04***	0.47	**1 ppm**	1/7.8 ppm
Phenanthrene	ND	2.98	0.86	0.43	40 ppm	1,000/2,500 ppm
Pyrene	ND	4.53	1.73	BDL	40 ppm	1,000/2,500 ppm
Total PAHs	0	34.32	12.85	2.98		
Total RCRA 8 Metals – ppm						
Arsenic	6.54	ND	6.98	***11.1***		**10/10 ppm**
Barium	15.6	50.2	30.4	32.0		4,700/140,000 ppm
Cadmium	ND	0.42	0.28	0.18		34/1,000 ppm
Chromium	11.5	19.4	19.0	29.6		100/100 ppm
Lead	9.32	97.4	127	63.8		500/1,000 ppm
Mercury	0.012	0.089	0.022	0.023		20/610 ppm
Selenium	BDL	6.54	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.39	0.38	0.33	0.38	10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(e) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-17 0.6-1.2m 2'-4'	GP-18 1.2-1.8m 4'-6'	GP-19 0-0.6m 0'-2'	GP-20 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	52.5	BDL	BDL	86.9	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	182	129	131	156	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	0.47	ND	ND	0.61	84 ppm	1,000/2,500 ppm
Anthracene	BDL	ND	ND	0.36	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	***1.01***	ND	ND	***1.36***	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	***1.31***	ND	ND	***1.72***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***1.49***	ND	ND	***2.03***	**1 ppm**	1/7.8 ppm
Benzo(g,h,i)perylene	BDL	ND	ND	1.06	42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	***1.07***	ND	ND	***1.15***	**1 ppm**	8.4/78 ppm
Chrysene	***1.51***	ND	ND	***1.74***	**1 ppm**	84/780 ppm
Fluoranthene	2.38	ND	ND	2.63	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.93	ND	ND	***1.14***	**1 ppm**	1/7.8 ppm
Phenanthrene	1.6	ND	ND	1.17	40 ppm	1,000/2,500 ppm
Pyrene	2.05	ND	ND	2.33	40 ppm	1,000/2,500 ppm
Total PAHs	13.82	0	0	17.3		
Total RCRA 8 Metals - ppm						
Arsenic	***36.9***	***13.9***	***14.6***	5.08		**10/10 ppm**
Barium	70.8	12.8	33.0	23.9		4,700/140,000 ppm
Cadmium	0.76	0.16	0.09	0.25		34/1,000 ppm
Chromium	24.2	12.9	19.7	17.7		100/100 ppm
Lead	246	7.45	12.6	128		500/1,000 ppm
Mercury	0.051	0.071	0.033	0.017		20/610 ppm
Selenium	6.84	ND	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	1.16	0.37	1.33	0.33	10.0 ppm	
Lead	***0.75***	ND	0.02	ND	**0.15 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(f) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-21 0-0.6m 0'-2'	GP-22 0-0.6m 0'-2'	GP-23 0.6-1.2m 2'-4'	GP-24 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	157	28.1	25.9	89.3	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	ND	0.73	84 ppm	1,000/2,500 ppm
Anthracene	ND	ND	ND	0.67	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.41	BDL	BDL	***2.03***	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	BDL	BDL	BDL	***2.03***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.59	BDL	BDL	***2.57***	**1 ppm**	**1**/7.8 ppm
Benzo(g,h,i)perylene	BDL	BDL	BDL	1.3	42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	BDL	BDL	BDL	***1.37***	**1 ppm**	8.4/78 ppm
Chrysene	BDL	BDL	BDL	***2.67***	**1 ppm**	84/780 ppm
Fluoranthene	0.92	0.68	0.47	3.8	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	***1.4***	**1 ppm**	**1**/7.8 ppm
Phenanthrene	0.45	BDL	BDL	2.83	40 ppm	1,000/2,500 ppm
Pyrene	BDL	BDL	BDL	3.53	40 ppm	1,000/2,500 ppm
Total PAHs	2.37	0	0.47	24.93		
Total RCRA 8 Metals - ppm						
Arsenic	7.34	***11.1***	8.59	8.32		**10/10 ppm**
Barium	44.5	31.5	22.3	26.8		4,700/140,000 ppm
Cadmium	0.26	0.24	0.12	0.13		34/1,000 ppm
Chromium	18.5	17.9	22.4	13.2		100/100 ppm
Lead	56.8	35.5	17.9	35.9		500/1,000 ppm
Mercury	0.018	0.026	0.02	0.03		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.87	0.6	0.12	0.5	10 ppm	
Lead	0.04	0.02	ND	0.02	0.15 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(g) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-25 1.2-2.4m 4'-8'	GP-26 0.6-1.2m 2'-4'	GP-27 1.2-2.4m 4'-8'	GP-28 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	19.5	49.4	23.9	***1,880***	2,500 ppm	**500**/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Acetone	308	ND	ND	ND	140,000 ppb	500,000/1,000,000 ppb
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	0.43	0.41	0.59	***4.73***	**1 ppm**	**1**/7.8 ppm
Benzo(b)fluoranthene	0.43	0.53	0.71	***5.47***	**1 ppm**	**1**/7.8 ppm
Chrysene	BDL	BDL	0.83	***7.1***	**1 ppm**	84/780 ppm
Fluoranthene	1.03	1.0	1.57	10.5	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	BDL	0.4	0.43	***3.4***	**1 ppm**	**1**/7.8 ppm
Phenanthrene	0.77	0.4	1.07	***5.77***	**4 ppm**	1,000/2,500 ppm
Pyrene	BDL	BDL	1.21	10.1	40 ppm	1,000/2,500 ppm
Total PAHs	2.66	2.74	6.41	47.07		
Total RCRA 8 Metals - ppm						
Arsenic	***10.1***	***10.4***	***11.4***	7.63		**10/10 ppm**
Barium	28.2	23.5	13.8	20.2		4,700/140,000 ppm
Cadmium	0.08	0.14	ND	0.17		34/1,000 ppm
Chromium	14.4	13.9	10.8	18.1		100/100 ppm
Lead	29.2	24.9	8.27	24.7		500/1,000 ppm
Mercury	0.018	0.017	0.011	0.014		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.39	0.22	0.16	0.31	10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(h) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-29 0-0.6m 0'-2'	GP-30 0-0.6m 0'-2'	GP-31 0-0.6m 0'-2'	GP-32 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	***4,970***	430	391	22.8	**2,500 ppm**	**500/2,500 ppm**
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(b)fluoranthene	BDL	***2.18***	BDL	ND	**1 ppm**	**1**/7.8 ppm
Fluoranthene	17.8	4.55	2.38	ND	56 ppm	1,000/2,500 ppm
Phenanthrene	8.92	2.57	BDL	ND	40 ppm	1,000/2,500 ppm
Total PAHs	26.72	9.3	2.38	0		
Total RCRA 8 Metals - ppm						
Arsenic	6.17	7.06	8.67	BDL		10/10 ppm
Barium	24.3	26.7	26.2	14.5		4,700/140,000 ppm
Cadmium	0.14	0.12	0.11	0.07		34/1,000 ppm
Chromium	10.6	12.3	14.5	16.1		100/100 ppm
Lead	33.1	31.8	40.1	6.15		500/1,000 ppm
Mercury	0.024	0.04	0.096	ND		20/610 ppm
Selenium	ND	ND	ND	5.26		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.6	0.62	0.24	0.15	10.0 ppm	
Lead	ND	0.02	ND	ND	0.15 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(i) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-33 0.6-1.2m 2'-4'	GP-34 0.6-1.2m 2'-4'	GP-35 0-0.6m 0'-2'	GP-36 1.2-2.4m 4'-8'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	BDL	30.8	BDL	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	102	85	82	ND	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Fluoranthene	ND	ND	0.43	ND	56 ppm	1,000/2,500 ppm
Total PAHs	0	0	0.43	0		
Total RCRA 8 Metals - ppm						
Arsenic	BDL	7.18	5.52	ND		10/10 ppm
Barium	15.7	15.6	23.7	20.7		4,700/140,000 ppm
Cadmium	0.14	0.06	0.17	0.14		34/1,000 ppm
Chromium	12.3	17.1	11.3	12.0		100/100 ppm
Lead	7.42	5.0	30.8	11.8		500/1,000 ppm
Mercury	ND	ND	0.048	ND		20/610 ppm
Selenium	5.7	7.18	5.09	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.3	0.22	0.54	0.24	10.0 ppm	
Lead	ND	ND	0.05	ND	0.15 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(j) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-37 0-0.6m 0'-2'	GP-38 0.6-1.2m 2'-4'	GP-39 0-0.6m 0'-2'	GP-40 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	156	BDL	71.5	24.2	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	239	ND	ND	ND	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	BDL	0.41	84 ppm	1,000/2,500 ppm
Benzo(a)anthracene	BDL	ND	0.77	***1.49***	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	BDL	ND	0.94	***1.52***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.56	ND	***1.22***	***1.92***	**1 ppm**	1/7.8 ppm
Benzo(k)fluoranthene	BDL	ND	BDL	***1.21***	**1 ppm**	8.4/78 ppm
Chrysene	BDL	ND	0.89	***1.66***	**1 ppm**	84/780 ppm
Fluoranthene	0.51	ND	1.1	1.37	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	ND	0.48	0.56	1 ppm	1/7.8 ppm
Phenanthrene	BDL	ND	0.36	BDL	40 ppm	1,000/2,500 ppm
Pyrene	BDL	ND	1.33	2.41	40 ppm	1,000/2,500 ppm
Total PAHs	1.07	0	7.09	12.55		
Total RCRA 8 Metals - ppm						
Arsenic	5.52	ND	***12.0***	***12.9***		**10/10 ppm**
Barium	25.0	13.1	24.7	22.8		4,700/140,000 ppm
Cadmium	0.16	ND	ND	0.06		34/1,000 ppm
Chromium	11.3	10.5	12.8	16.8		100/100 ppm
Lead	21.8	4.04	33.4	22.9		500/1,000 ppm
Mercury	0.048	ND	0.025	0.036		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.31	0.24	0.52	0.49	10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(k) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-41 0-0.6m 0'-2'	GP-42 0.6-1.2m 2'-4'	GP-43 0.6-1.2m 2'-4'	GP-44 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	40.3	BDL	***1,110***	132	2,500 ppm	**500**/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	0.76	1.16	84 ppm	1,000/2,500 ppm
Anthracene	ND	ND	BDL	1.11	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	BDL	ND	***1.74***	***3.84***	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	BDL	ND	***2.77***	***4.31***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.45	ND	***3.21***	***4.99***	**1 ppm**	**1**/7.8 ppm
Benzo(g,h,i)perylene	ND	ND	ND	1.43	42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	BDL	ND	***2.13***	***3.84***	**1 ppm**	8.4/78 ppm
Chrysene	BDL	ND	***1.89***	***3.83***	**1 ppm**	84/780 ppm
Fluoranthene	0.37	ND	2.21	5.14	56 ppm	1,000/2,500 ppm
Fluorene	ND	ND	ND	0.51	56 ppm	1,000/2,500 ppm
Phenanthrene	BDL	ND	0.83	3.83	40 ppm	1,000/2,500 ppm
Pyrene	BDL	ND	4.64	11.1	40 ppm	1,000/2,500 ppm
Total PAHs	0.82	0	20.18	45.09		
Total RCRA 8 Metals - ppm						
Arsenic	***15.6***	10.0	***12.2***	***18.0***		**10/10 ppm**
Barium	26.6	47.4	25.3	22.6		4,700/140,000 ppm
Cadmium	ND	ND	0.04	0.05		34/1,000 ppm
Chromium	14.7	17.4	14.3	12.9		100/100 ppm
Lead	49.8	11.0	54.2	71.0		500/1,000 ppm
Mercury	0.032	0.018	0.099	0.049		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.46	0.45	0.17	0.26	10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(l) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-45 0.6-1.2m 2'-4'	GP-46 0-0.6m 0'-2'	GP-47 0-0.6m 0'-2'	GP-48 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	BDL	43.8	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(b)fluoranthene	BDL	ND	ND	0.62	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	BDL	ND	ND	0.69	1 ppm	8.4/78 ppm
Fluoranthene	BDL	BDL	ND	0.69	56 ppm	1,000/2,500 ppm
Phenanthrene	ND	ND	ND	0.38	40 ppm	1,000/2,500 ppm
Pyrene	BDL	BDL	ND	1.17	40 ppm	1,000/2,500 ppm
Total PAHs	0	0	0	3.55		
Total RCRA 8 Metals - ppm						
Arsenic	8.64	***10.3***	***26.7***	***16.2***		**10/10 ppm**
Barium	18.1	18.0	38.9	29.3		4,700/140,000 ppm
Cadmium	ND	ND	0.04	0.08		34/1,000 ppm
Chromium	11.4	10.2	49.0	28.0		100/100 ppm
Lead	8.86	20.7	82.2	145		500/1,000 ppm
Mercury	ND	0.018	0.013	0.017		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Arsenic	ND	ND	ND	0.04	0.5 ppm	
Barium	0.16	0.12	0.22	0.1	10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(m) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-49 0.6-1.2m 2'-4'	GP-50 0-0.6m 0'-2'	GP-51 0-0.6m 0'-2'	GP-52 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	20.4	33.6	33.4	85.2	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	105	ND	ND	180	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	ND	2.25	84 ppm	1,000/2,500 ppm
Anthracene	ND	ND	ND	1.99	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	ND	BDL	***8.85***	**1 ppm**	**1/7.8 ppm**
Benzo(a)pyrene	ND	ND	BDL	***7.88***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	ND	ND	ND	***11.4***	**1 ppm**	**1/7.8 ppm**
Benzo(g,h,i)perylene	ND	ND	ND	2.29	42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	ND	ND	BDL	***8.63***	**1 ppm**	**8.4**/78 ppm
Chrysene	ND	ND	BDL	***10.3***	**1 ppm**	84/780 ppm
Fluoranthene	ND	ND	0.46	19.6	56 ppm	1,000/2,500 ppm
Fluorene	ND	ND	ND	1.11	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	ND	ND	***2.73***	**1 ppm**	1/7.8 ppm
Phenanthrene	ND	ND	BDL	17.2	40 ppm	1,000/2,500 ppm
Pyrene	ND	ND	BDL	21.0	40 ppm	1,000/2,500 ppm
Total PAHs	0	0	0.46	115.23		
Total RCRA 8 Metals - ppm						
Arsenic	5.91	9.11	ND	ND		10/10 ppm
Barium	75.1	65.8	43.6	70.0		4,700/140,000 ppm
Cadmium	ND	0.09	0.17	1.33		34/1,000 ppm
Chromium	12.6	15.5	7.36	8.36		100/100 ppm
Lead	6.62	13.3	25.6	227		500/1,000 ppm
Mercury	0.011	0.01	0.031	0.041		20/610 ppm
Selenium	5.2	ND	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.57	0.88	0.45	0.43	10.0 ppm	
Lead	ND	ND	ND	0.03	0.15 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(n) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-53 0-0.6m 0'-2'	GP-54 0.6-1.2m 2'-4'	GP-55 0-0.6m 0'-2'	GP-56 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	130	69.9	63.2	BDL	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	128	86	ND	76	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthene	0.38	ND	ND	ND	84 ppm	1,000/2,500 ppm
Acenaphthylene	3.34	1.94	0.98	ND	84 ppm	1,000/2,500 ppm
Anthracene	2.75	1.12	1.15	ND	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	***12.1***	***6.73***	***2.91***	ND	**1 ppm**	**1/7.8 ppm**
Benzo(a)pyrene	***10.3***	***6.77***	***2.74***	ND	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***18.7***	***11.6***	***4.46***	ND	**1 ppm**	**1/7.8 ppm**
Benzo(g,h,i)perylene	4.38	2.02	ND	ND	42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	***10.4***	***5.52***	***3.87***	ND	**1 ppm**	**8.4**/78 ppm
Chrysene	***14.2***	***7.67***	***2.99***	ND	**1 ppm**	84/780 ppm
Dibenz(a,h)anthracene	0.83	ND	ND	ND	1 ppm	1/1 ppm
Fluoranthene	25.4	12.8	7.05	BDL	56 ppm	1,000/2,500 ppm
Fluorene	1.66	0.64	1.13	ND	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	***2.13***	***2.51***	***1.22***	ND	**1 ppm**	1/7.8 ppm
2-Methylnaphthalene	0.37	ND	ND	ND	9.8 ppm	474/2,500 ppm
Naphthalene	0.43	BDL	ND	ND	56 ppm	1,000/2,500 ppm
Phenanthrene	23.7	7.85	5.24	ND	40 ppm	1,000/2,500 ppm
Pyrene	33.1	19.3	9.85	BDL	40 ppm	1,000/2,500 ppm
Total PAHs	164.17	86.47	43.59	0		
Total RCRA 8 Metals - ppm						
Arsenic	7.5	BDL	ND	***21.4***		**10/10 ppm**
Barium	53.0	34.8	75.4	20.4		4,700/140,000 ppm
Cadmium	0.32	0.22	0.32	0.14		34/1,000 ppm
Chromium	13.1	7.78	12.3	13.3		100/100 ppm
Lead	339	173	196	13.0		500/1,000 ppm
Mercury	0.026	0.018	0.027	ND		20/610 ppm
Selenium	ND	ND	5.46	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.33	0.48	0.63	0.28	10.0 ppm	
Lead	0.03	0.04	0.07	ND	0.15 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(o) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-57 0-0.6m 0'-2'	GP-58 0.6-1.2m 2'-4'	GP-59 0-0.6m 0'-2'	GP-60 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	26.1	300	36.5	***611***	2,500 ppm	**500**/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	ND	137	81	ND	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	0.75	BDL	ND	84 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	***1.62***	***1.06***	ND	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	ND	***1.91***	***1.26***	ND	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	ND	***2.73***	***1.71***	ND	**1 ppm**	**1**/7.8 ppm
Benzo(k)fluoranthene	ND	***2.07***	***1.28***	ND	**1 ppm**	8.4/78 ppm
Chrysene	BDL	***2.01***	***1.24***	ND	**1 ppm**	84/780 ppm
Fluoranthene	BDL	2.83	1.94	0.36	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	0.93	ND	ND	1 ppm	1/7.8 ppm
Phenanthrene	BDL	1.61	1.16	ND	40 ppm	1,000/2,500 ppm
Pyrene	BDL	3.89	2.67	BDL	40 ppm	1,000/2,500 ppm
Total PAHs	0	20.35	12.32	0.36		
Total RCRA 8 Metals - ppm						
Arsenic	***18.4***	5.24	5.34	BDL		**10/10 ppm**
Barium	18.9	44.7	35.8	36.1		4,700/140,000 ppm
Cadmium	0.1	0.46	0.22	0.1		34/1,000 ppm
Chromium	12.0	12.2	13.0	14.4		100/100 ppm
Lead	16.4	68.8	55.2	12.6		500/1,000 ppm
Mercury	ND	0.031	0.047	ND		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.3	0.43	0.53	0.36	10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(p) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-61 0-0.6m 0'-2'	GP-62 0-0.6m 0'-2'	GP-63 0.6-1.2m 2'-4'	GP-64 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	149	128	BDL	51.9	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	ND	ND	ND	95	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Anthracene	ND	0.37	ND	ND	400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	0.77	ND	0.38	1 ppm	1/7.8 ppm
Benzo(a)pyrene	ND	1.0	ND	ND	1 ppm	1/1 ppm
Benzo(b)fluoranthene	ND	0.9	ND	0.54	1 ppm	1/7.8 ppm
Benzo(k)fluoranthene	ND	***1.3***	ND	ND	**1 ppm**	8.4/78 ppm
Chrysene	ND	0.95	ND	ND	1 ppm	84/780 ppm
Fluoranthene	0.68	1.68	ND	0.85	56 ppm	1,000/2,500 ppm
Phenanthrene	0.44	1.25	ND	BDL	40 ppm	1,000/2,500 ppm
Pyrene	ND	2.13	ND	ND	40 ppm	1,000/2,500 ppm
Total PAHs	1.12	10.35	0	1.77		
Total RCRA 8 Metals - ppm						
Arsenic	BDL	ND	6.16	BDL		10/10 ppm
Barium	31.8	40.9	12.3	36.6		4,700/140,000 ppm
Cadmium	0.08	0.16	0.07	0.24		34/1,000 ppm
Chromium	6.9	13.5	9.21	15.7		100/100 ppm
Lead	15.5	25.0	6.24	42.6		500/1,000 ppm
Mercury	0.022	0.064	ND	0.039		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.1	1.19	0.39	0.49	10.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(q) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-65 0-0.6m 0'-2'	GP-66 1.2-1.8m 4'-6'	GP-67 0-0.6m 0'-2'	GP-68 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	132	68.7	82.0	BDL	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	ND	ND	75	ND	1,000 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	ND	0.56	84 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.44	BDL	0.91	***1.02***	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	BDL	BDL	BDL	***1.32***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.72	BDL	1.05	***1.4***	**1 ppm**	1/7.8 ppm
Benzo(k)fluoranthene	BDL	BDL	BDL	***1.2***	**1 ppm**	8.4/78 ppm
Chrysene	BDL	BDL	BDL	***1.35***	**1 ppm**	84/780 ppm
Fluoranthene	1.06	0.48	1.99	1.95	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.36	ND	0.7	0.71	1 ppm	1/7.8 ppm
Phenanthrene	0.47	BDL	1.2	1.06	40 ppm	1,000/2,500 ppm
Pyrene	BDL	BDL	BDL	1.73	40 ppm	1,000/2,500 ppm
Total PAHs	3.05	0.48	5.85	12.3		
Total RCRA 8 Metals - ppm						
Arsenic	***11.5***	***13.6***	5.24	9.1		10/10 ppm
Barium	27.3	19.0	38.8	32.1		4,700/140,000 ppm
Cadmium	0.22	0.16	0.39	1.14		34/1,000 ppm
Chromium	19.2	14.1	10.9	12.0		100/100 ppm
Lead	57.6	35.6	280	39.9		500/1,000 ppm
Mercury	0.015	ND	0.035	0.023		20/610 ppm
Selenium	ND	ND	ND	5.1		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.34	0.39	0.56	0.89	10.0 ppm	
Lead	ND	0.02	0.05	0.02	0.15 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(r) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-69 0-0.6m 0'-2'	GP-70 0.6-1.2m 2'-4'	GP-71 1.2-1.8m 4'-6'	GP-72 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA/GB Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	47.5	19.8	247	2,500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Acetone	ND	334	ND	ND	140,000 ppb (GB)	500,000/1,000,000 ppb
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	5.31	ND	BDL	8.4/84 ppm	1,000/2,500 ppm
Anthracene	ND	4.18	ND	ND	40/400 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.62	***22.9***	ND	***4.94***	**1/1 ppm**	**1/7.8 ppm**
Benzo(a)pyrene	BDL	***23.3***	ND	BDL	**1/1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.69	***28.0***	ND	***7.88***	**1/1 ppm**	**1/7.8 ppm**
Benzo(g,h,i)perylene	BDL	13.1	ND	BDL	4.2/42 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	BDL	***15.2***	ND	BDL	**1/1 ppm**	**8.4**/78 ppm
Chrysene	0.75	***28.3***	ND	***7.85***	**1/1 ppm**	84/780 ppm
Fluoranthene	0.99	35.7	ND	***12.2***	**5.6**/56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.38	***14.5***	ND	***4.35***	**1/1 ppm**	**1/7.8 ppm**
Phenanthrene	BDL	14.8	ND	***6.66***	**4**/40 ppm	1,000/2,500 ppm
Pyrene	BDL	37.0	ND	***11.0***	**4**/40 ppm	1,000/2,500 ppm
Total PAHs	3.43	242.29	0	54.88		
Total RCRA 8 Metals - ppm						
Arsenic	8.2	7.0	ND	5.06		10/10 ppm
Barium	24.2	23.1	14.7	29.6		4,700/140,000 ppm
Cadmium	0.06	0.16	0.08	0.44		34/1,000 ppm
Chromium	17.8	17.9	13.1	12.9		100/100 ppm
Lead	127	77.6	9.52	81.2		500/1,000 ppm
Mercury	0.264	0.022	ND	0.028		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.91	0.22	0.32	0.11	1.0/10.0 ppm	
Lead	***0.42***	***0.06***	ND	***0.02***	**0.015/0.15 ppm**	
Mercury	0.00071	ND	ND	ND	0.02/0.002 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

TABLE 1(s) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-73 0-0.6m 0'-2'	GP-74 0-0.6m 0'-2'	GP-75 0-0.6m 0'-2'	GP-76 1.2-1.8m 4'-6'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	24.7	43.9	37.5	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	ND	0.82	BDL	ND	1 ppm	1/7.8 ppm
Benzo(b)fluoranthene	ND	***1.31***	0.82	ND	**1 ppm**	1/7.8 ppm
Fluoranthene	BDL	2.02	1.57	ND	56 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	***1.01***	BDL	ND	**1 ppm**	1/7.8 ppm
Phenanthrene	ND	0.89	0.84	ND	40 ppm	1,000/2,500 ppm
Total PAHs	0	6.05	3.23	0		
Total RCRA 8 Metals - ppm						
Arsenic	8.31	7.54	5.13	5.87		10/10 ppm
Barium	40.0	31.9	29.9	12.5		4,700/140,000 ppm
Cadmium	0.17	0.19	0.18	0.08		34/1,000 ppm
Chromium	7.07	14.0	17.6	7.64		100/100 ppm
Lead	23.9	196	127	10.6		500/1,000 ppm
Mercury	0.031	0.032	0.025	ND		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.1	0.15	0.59	0.21	1.0 ppm	
Lead	ND	***0.02***	BDL	ND	**0.015 ppm**	
Mercury	ND	ND	ND	0.00005	0.002 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(t) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Boring I.D.: Sample Depth:	GP-77 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND		
PAHs - EPA Method 8270 (ppm)	ND		
Total RCRA 8 Metals - ppm			
Barium	14.6		4,700/140,000 ppm
Chromium	9.0		100/100 ppm
Lead	4.63		500/1,000 ppm
SPLP RCRA 8 Metals - ppm			
Barium	0.33	1.0 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 2 - Results of Groundwater Grab Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from the Milford City Line to West of Lambert Road
Orange, CT

Sample I.D.:	GP-10	GP-20	CTDEP Groundwater Protection Criteria	CTDEP Surface Water Protection Criteria	CTDEP Volatilization Criteria Residential/Commercial & Industrial
TPH – EPA Method 418.1 (ppm)	BDL	BDL	0.5 ppm	None Established	Not Applicable
VOCs – EPA Method 8260 (ppb)					
Methylene Chloride	***33.3***	ND	**5 ppb**	48,000 ppb	50,000/50,000 ppb
Ethyl Benzene	0.7	BDL	700 ppb	580,000 ppb	50,000/50,000 ppb
Xylenes	4.0	BDL	530 ppb	None Established	21,300/50,000 ppb
PAHs – EPA Method 8270 (ppm)	BDL	BDL			
Total RCRA 8 Metals - ppm					Not Applicable
Barium	***2.62***	1.15*	**1.0 ppm**	None Established	
Cadmium	***0.007***	0.002	**0.005 ppm**	**0.006 ppm**	
Chromium	***3.23***	0.059*	**0.05 ppm**	**0.11 ppm**	
Lead	ND	***0.06****	0.015 ppm	**0.013 ppm**	
Mercury	***0.00066***	ND	0.002 ppm	**0.0004**	

ND – Not Detected

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Sample was collected in a GB Groundwater Area, and therefore Groundwater Protection Criteria do not apply

APPENDIX A
Boring Logs

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-1
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel, trace fine Sand	PID = 0 ppm
0.6	2'		
		Brownish-Gray fine to medium SAND, trace Silt & fine to coarse Gravel	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-2
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine SAND, little fine to coarse Gravel, trace Silt	PID = 0 ppm
0.6	2'	Brownish-Gray fine to medium SAND, trace Silt & fine to coarse Gravel	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.4 ppm
1.2	4'	Brown SILT, little fine Gravel & Cobble, trace Clay	
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.8	6'		PID = 0 ppm
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-3
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Dark-Brown fine SAND, little fine to coarse Gravel, trace Silt	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-4
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine SAND, little fine to coarse Gravel, trace SIlt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-5
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine SAND, little fine to coarse Gravel, trace Silt	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'	Brown SILT, little fine Gravel & Cobble, trace fine Sand (slight coal tar odor)	PID = 2.3 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
			PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-6
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine SAND, little fine to coarse Gravel, trace Silt	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
		Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
1.5	5'		Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.8	6'		PID = 0.2 ppm
2.1	7'		
2.4	8'		
		Refusal at 2.1 m (7') on Bluish-Green Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-7
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown fine SAND, little fine to coarse Gravel, trace Silt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel, trace fine Sand	
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
			PID = 0 ppm
1.8	6'		
		Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-8
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown fine SAND, little fine to coarse Gravel, trace Silt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel, trace fine Sand	
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
		Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-9
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel, trace fine Sand	PID = 0 ppm
0.6	2'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'	Brownish-Gray fine to coarse SAND, little fine to coarse Gravel, trace Silt	
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.8	6'		PID = 0 ppm
2.1	7'		
2.4	8'	Gray-Brown fine SAND, little fine to coarse Gravel, trace Silt	Macro Core Sample 2.4 - 2.74m (8' - 9'):
2.74	9'		PID = 0 ppm
3	10'		
3.4	11'	Refusal at 2.74 m (9') on Bluish-Green Phyllite	
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/6/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-10
Date Finished: 12/6/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel, trace fine Sand	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'	Brownish-Gray fine to coarse SAND, little fine to coarse Gravel, trace Silt	
			Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Groundwater at 2.1 meters (7')	
2.4	8'	Gray-Brown fine SAND, little fine to coarse Gravel, trace Silt	Macro Core Sample 2.4 - 2.74m (8' - 9'):
			PID = 0 ppm
2.74	9'		
3	10'		
3.4	11'	Refusal at 2.74 m (9') on Bluish-Green Phyllite	
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-11
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel, trace fine Sand	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'	Brownish-Gray fine to coarse SAND, little fine to coarse Gravel, trace Silt	
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'):
			PID = 0.1 ppm
1.8	6'		
2.1	7'		
2.4	8'	Gray-Brown fine SAND, little fine to coarse Gravel, trace Silt	Macro Core Sample 2.4 - 2.74m (8' - 9'):
			PID = 0 ppm
2.74	9'		
3	10'		
3.4	11'	Refusal at 2.74 m (9') on Bluish-Green Phyllite	
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-12
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine SAND & SILT, trace fine to coarse Gravel	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.3 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'		
		Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	PID = 0.5 ppm
1.8	6'		
2.1	7'		
2.4	8'	Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-13
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine SAND & SILT, trace fine to coarse Gravel	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.3 ppm
1.5	5'		
		End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-14
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Dark Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.4 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'		
		Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-15
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
			PID = 0 ppm
1.8	6'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-16
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.8	6'		PID = 0 ppm
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-17
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine Sand, little fine to coarse Gravel, trace Silt	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'	Black SILT, little fine Sand, trace fine to coarse Gravel	PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-18
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine Sand, little fine to coarse Gravel, trace Silt	PID = 0 ppm
0.6	2'		
		Brown SILT, little fine to coarse Gravel, trace fine Sand	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
		Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'		PID = 0.2 ppm
1.8	6'		
2.1	7'		
2.4	8'	Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-19
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel, trace fine Sand	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'	Brown fine to medium SAND, little fine to coarse Gravel, trace Silt	PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-20
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 7.6 cm (3")	Macro Core Sample 0 - 0.6m (0' - 2'):
		Grayish-Black fine SAND, little fine to coarse Gravel & Brick, trace Silt	PID = 0 ppm
0.3	1'		
0.6	2'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'	Brownish-Gray fine to medium SAND, little fine to coarse Gravel, trace Silt	
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.8	6'		PID = 0 ppm
2.1	7'		
		Groundwater at 2.3 meters (7.5')	
2.4	8'	Brown fine to medium SAND, trace Silt	Macro Core Sample 2.4 - 2.74m (8' - 9'):
2.74	9'		PID = 0 ppm
3	10'		
3.4	11'	Refusal at 2.74 m (9') on Bluish-Green Phyllite	
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-21
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Brown SILT, little fine to coarse Gravel, trace fine Sand	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation: Trace = 0-10% | Little = 10-20% | Some = 20-35% | And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-22
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel, trace fine Sand	Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-23
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel, trace fine Sand	Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'		PID = 0.5 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-24
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.5 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel, trace fine Sand	
			Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Brown SILT, little fine to coarse Gravel, trace fine Sand	
2.4	8'		Macro Core Sample 2.4 - 3m (8' - 10'):
			PID = 0 ppm
2.74	9'		
3	10'		
3.4	11'		
3.7	12'	Refusal at 3 m (10') on Bluish-Green Phyllite	
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-25
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel, trace fine Sand	
			Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.5	5'		PID = 0.6 ppm
1.8	6'		
2.1	7'	Brown SILT, little fine to coarse Gravel, trace fine Sand	
2.4	8'		Macro Core Sample 2.4 - 3m (8' - 10'):
2.74	9'		PID = 0 ppm
3	10'		
3.4	11'		
3.7	12'	Refusal at 3 m (10') on Bluish-Green Phyllite	
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-26
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
		Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.8 ppm
1.2	4'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
			Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.5	5'		PID = 0 ppm
1.8	6'		
		Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
2.1	7'		
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-27
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0.1 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
			Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.5	5'		PID = 1.0 ppm
1.8	6'		
2.1	7'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-28
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, trace Silt & fine to coarse Gravel & Cobble	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.3 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-29
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.4 ppm
0.6	2'	Brown fine to medium SAND, trace Silt & fine to coarse Gravel & Cobble	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-30
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-31
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-32
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 7.6 cm (3")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 1.4 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.7 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-33
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel Red-Brown fine SAND & SILT, trace fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 1.8 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 2.4 ppm
1.2	4'	End of Boring at 1.2 meters (4')	
1.5	5'		
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-34
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
		Dark-Brown SILT, trace fine to coarse Gravel	PID = 0.2 ppm
0.3	1'		
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'		PID = 1.1 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-35
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
		Dark-Brown SILT, trace fine to coarse Gravel	PID = 0.6 ppm
0.3	1'		
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
		Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-36
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0.1 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.8	6'		PID = 0.9 ppm
2.1	7'	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-37
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 1.1 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.8	6'		PID = 0.1 ppm
2.1	7'	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-38
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel Dark-Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 1.8 ppm
0.6	2'		
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 2.4 ppm
1.2	4'	Gray-Brown coarse SAND, trace fine to coarse Gravel & Cobble	
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'): PID = 1.1 ppm
1.8	6'		
2.1	7'	Gray-Brown coarse SAND, trace fine to coarse Gravel & Cobble	
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-39
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown fine SAND, little fine to coarse Gravel, trace SIlt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-40
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown fine SAND, little fine to coarse Gravel, trace Silt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-41
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
		Brown fine SAND, little fine to coarse Gravel, trace Silt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-42
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown fine SAND, little fine to coarse Gravel, trace SIlt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
1.2	4'		
1.5	5'		
		End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-43
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.1 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-44
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-45
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.1 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel, trace Clay	
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-46
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel, trace SIlt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
			PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace Clay	
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-47
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0.2 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel, trace SIlt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.1 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel, trace Clay	
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/7/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-48
Date Finished: 12/7/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel, trace SIlt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
			PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace Clay	
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-49
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.4 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-50
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-51
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.3 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	
0.9	3'		Macro Core Sample 0.6 - 1.2 m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.8	6'		PID = 0 ppm
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-52
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
0.6	2'	Brown fine to medium SAND, little Silt, trace fine to coarse Gravel & Cobble	
0.9	3'		Macro Core Sample 0.6 - 1.2 m (2' - 4'):
1.2	4'		PID = 1.4 ppm
1.5	5'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.8	6'		PID = 0 ppm
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-53
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.8 ppm
0.6	2'	Brown fine to medium SAND, little Silt, trace fine to coarse Gravel & Cobble	Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-54
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.3 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'		PID = 1.6 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-55
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0.6 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-56
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-57
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4'	End of Boring at 1.2 meters (4')	
1.5	5'		
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-58
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
		Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'	Dark-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0.3 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-59
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'	Dark-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-60
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'	Dark-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-61
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'	Dark-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/10/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-62
Date Finished: 12/10/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2 m (2' - 4'):
0.9	3'	Dark-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5 m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-63
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.4 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-64
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-65
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.4 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-66
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0.2 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-67
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.8	6'		PID = 0 ppm
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/8/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-68
Date Finished: 12/8/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
			PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-69
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.3 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.8	6'		PID = 0 ppm
2.1	7'	Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-70
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.6 ppm
1.2	4'		
1.5	5'	Brown SILT, little fine to coarse Gravel, trace fine Sand	Macro Core Sample 1.2 - 2.4m (4' - 8'):
			PID = 0.1 ppm
1.8	6'		
2.1	7'		
2.4	8'		Macro Core Sample 2.4 - 3.7m (8' - 12'):
			PID = 0 ppm
2.74	9'		
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'	Refusal at 3.7 m (12') on Bluish-Green Phyllite	
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-71
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
		Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
			Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'		PID = 0.2 ppm
1.8	6'		
2.1	7'		
2.4	8'	Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-72
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
		Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
1.2	4'		
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-73
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
		Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
1.5	5'		Macro Core Sample 1.2 - 1.8m (4' - 6'):
			PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'	Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-74
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 0.9 m (2' - 3'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'		
		Refusal at 0.9 m (3') on Bluish-Green Phyllite	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-75
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
		Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
			Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'		
		Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-76
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 13 cm (5") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand	PID = 0.3 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'	Gray-Brown fine to coarse SAND, trace Silt & fine to coarse Gravel	PID = 0.8 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'		
		Gray-Brown fine SAND, little Silt	PID = 1.1 ppm
1.8	6'		
2.1	7'		
2.4	8'	Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 12/9/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-77
Date Finished: 12/9/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel, trace fine Sand	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.7 ppm
1.5	5'	End of Boring at 1.2 meters (4')	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%