# TASK 210:
# SURFICIAL SITE INVESTIGATION
# Volume 1

## Reconstruction of Route 1 (Boston Post Road) From Roses Mill Road to the Orange Town Line Milford, Connecticut

ConnDOT Assignment No. 200-3617
ConnDOT Project No. 83-230

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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 Roses Mill Road to the Orange Town Line in Milford, Connecticut. The proposed construction project will involve the installation of dual left-turning lanes on U.S. Route 1 in Milford from Roses Mill Road to the Orange Town Line, for a total length of approximately 1,592 meters (5,000 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.

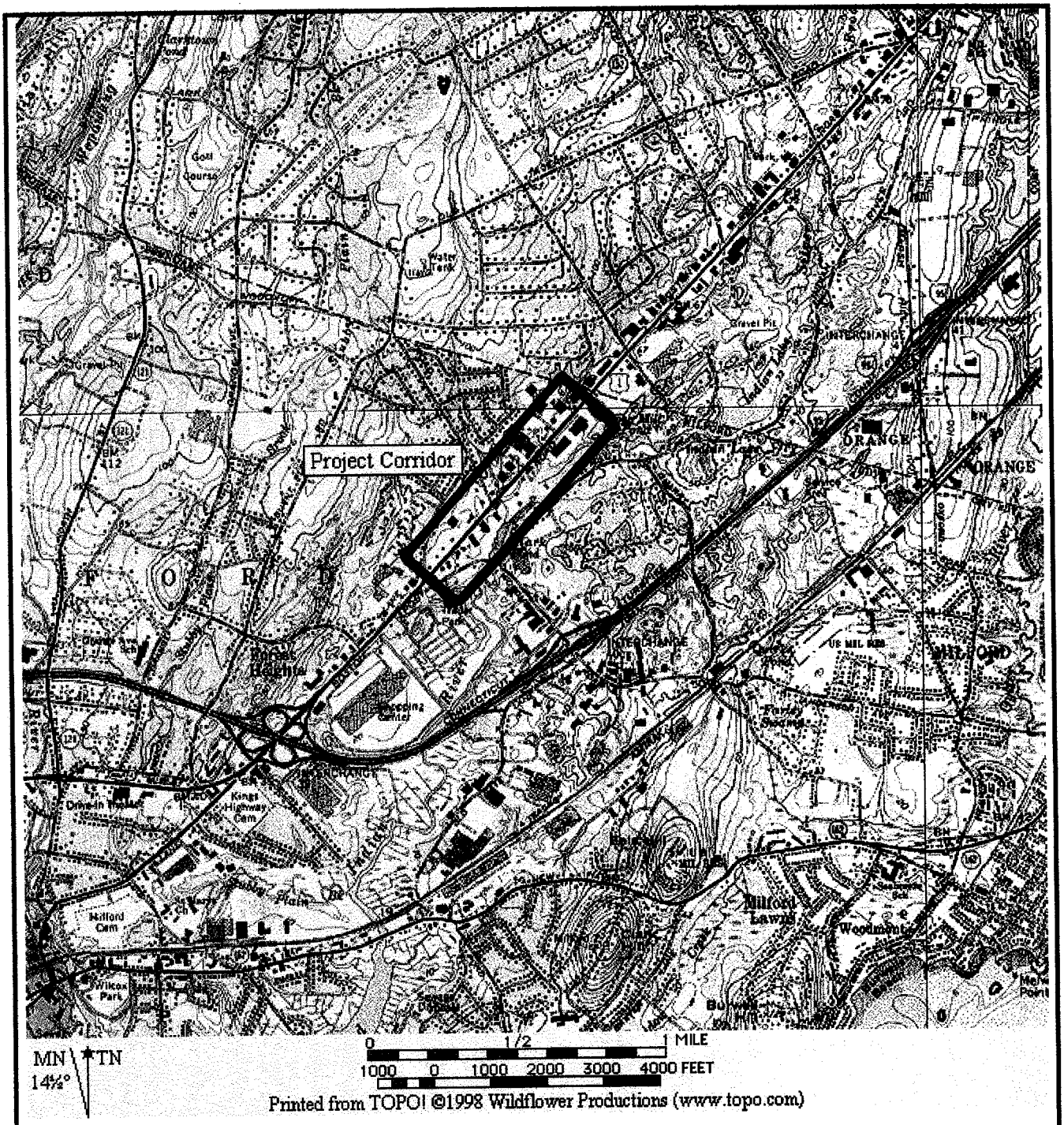


**FIGURE 1 – SITE LOCATION PLAN**

**Reconstruction of Route 1 from Roses Mill Road to the Orange Town Line**

**Milford, 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 eighteen moderate or high risk designated properties along Route 1. The following summarizes the eighteen parcels and their locations.

*1461 Boston Post Road (MGI Parcel A-9)* - This parcel was assigned a moderate risk because it was formerly a gasoline station. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1463 Boston Post Road (MGI Parcel A-10)* - This parcel was assigned a moderate risk because it was formerly a freight company. In addition, the parcel is a suspected State Hazardous Waste Site and it has five (5) registered underground storage tanks (USTs). According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1470 Boston Post Road (MGI Parcel A-12)* - This parcel was assigned a moderate risk because it formerly contained an automobile dealership. The parcel also has five (5) registered USTs on the property. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1475 Boston Post Road (MGI Parcel A-15)* - This parcel was assigned a moderate risk because it formerly housed a welding shop and an oil company. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1503 Boston Post Road (MGI Parcel A-16)* - This parcel was assigned a moderate risk because it currently houses a car dealership. In addition, two suspected USTs were observed on the property. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1529 Boston Post Road (MGI Parcel B-1)* - This parcel was assigned a high risk because it formerly housed a freight shipping company. The site is a former RCRA generator of hazardous waste and has five (5) registered USTs. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1496 – 1500 Boston Post Road (MGI Parcel B-2)* - This parcel was assigned a moderate risk because it formerly housed a car dealership. In addition, the property has six (6) registered USTs. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1550 Boston Post Road (MGI Parcel B-5)* - This parcel was assigned a moderate risk because it contains a nursery and garden center. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1553 Boston Post Road (MGI Parcel C-1)* - This parcel was assigned a high risk because it houses a manufacturing company that is 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.

*Boston Post Road (MGI Parcel C-2)* - This parcel was assigned a high risk because of its proximity to a manufacturing facility and the presence of a monitoring well on-site. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1574 Boston Post Road (MGI Parcel C-3)* - This parcel was assigned a high risk because it formerly contained an industrial business. In addition, the property has two (2) registered USTs. According to the ConnDOT construction plans for the project, a partial strip take, and cut and fill activities are proposed for this property.

*1573 - 1585 Boston Post Road (MGI Parcel C-4)* - This parcel was assigned a high risk because it contains a UST, and monitoring wells were observed on-site. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

*1595 - 1607 Boston Post Road (MGI Parcel C-7)* - This parcel was assigned a moderate risk because it contains a generator of RCRA hazardous waste. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

*1620 Boston Post Road (MGI Parcel C-8)* - This parcel was assigned a high risk because it has a registered UST on the property. According to the ConnDOT construction plans for the project, a partial strip take, and cut and fill activities are proposed for this property.

*1634 - 1650 Boston Post Road (MGI Parcel E-1)* - This parcel was assigned a moderate risk because it has three (3) registered USTs on-site. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

*1755 Boston Post Road (MGI Parcel F-1)* - This parcel was assigned a high rating due to its current use as industrial/manufacturing. The site is a generator of RCRA hazardous waste, and contains two registered USTs. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1777 Boston Post Road (MGI Parcel F-2)* - This parcel was assigned a high risk because it has a registered UST on-site. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

*1738 Boston Post Road (MGI Parcel G-2)* - The Comp-USA parcel was assigned a moderate risk because it currently houses a nursery and garden center. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

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

## 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 project corridor is "GB". 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 considered suitable for direct human consumption without the need for treatment. All of the properties within the project corridor are connected to the public water supply system and municipal sewer system. In addition, there are no public water supply wells located within a 1,609 meter (1 mile) radius of the project area, according to the CTDEP Bulletin 4, "The Atlas of the Public Water Supply Sources and Drainage Basins of Connecticut," June, 1982. Groundwater was not encountered in any of the Geoprobe® soil borings advanced during this investigation.

**FIGURE 2 - Task 210 Project Area & Sampling Locations**
**Reconstruction of Route 1 from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

PARCEL LAND USE

| | | | |
|---|---|---|---|
| A1. COMMERCIAL | A11. COMMERCIAL | C1. INDUSTRIAL | E1. COMMERCIAL |
| A2. COMMERCIAL | A12. COMMERCIAL | C2. UNDEVELOPED | E2. COMMERCIAL |
| A3. COMMERCIAL | A13. RESIDENTIAL | C3. COMMERCIAL | E3. COMMERCIAL |
| A4. UNDEVELOPED | A14. RESIDENTIAL | C4. COMMERCIAL | F1. INDUSTRIAL |
| A5. COMMERCIAL | A15. COMMERCIAL | C5. COMMERCIAL | F2. COMMERCIAL |
| A6. UNDEVELOPED | A16. COMMERCIAL | C6. COMMERCIAL | F3. COMMERCIAL |
| A7. COMMERCIAL | B1. COMMERCIAL | C7. COMMERCIAL | G1. COMMERCIAL |
| A8. UNDEVELOPED | B2. COMMERCIAL | C8. COMMERCIAL | G2. COMMERCIAL |
| A9. COMMERCIAL | B3. COMMERCIAL | D1. COMMERCIAL | G3. UNDEVELOPED |
| A10. COMMERCIAL | B4. INDUSTRIAL | D2. UNDEVELOPED | G4. COMMERCIAL |
| | B5. COMMERCIAL | D3. COMMERCIAL | G5. COMMERCIAL |
| | | D4. COMMERCIAL | G6. COMMERCIAL |


0 150 300 600
GRAPHIC SCALE IN FEET

0 50 100 200
GRAPHIC SCALE IN METERS

■ = 1.2 m (4') Deep Boring

● = 3.7 m (12') Deep Boring

LEGEND
(12) PARCEL IDENTIFICATION NUMBER
PARCEL OF POTENTIAL ENVIRONMENTAL CONCERN

## 3.2 Geology & Topography

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 soils encountered during this investigation included brown, very hard-packed sand and silty till units.

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 1.2 to 3.7 meters (4 to 12 feet) below grade.

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.

# 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 eighteen (18) 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 13 to December 17, 1999, fifty-three (53) Geoprobe® soil borings were advanced within proposed areas of construction and right-of-way activities adjacent to the eighteen (18) 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 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 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 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 GB groundwater area, the least stringent criteria are applied for contaminants detected in the soil.

## 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(n), 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 390 parts per million (ppm). However, none of the samples contained TPH concentrations that exceed any applicable CTDEP RSR Criteria.

Seventeen of the fifty-three soil samples analyzed as part of this investigation contained detectable concentrations of volatile organic compounds (VOCs). Methylene chloride (detected in 14 samples) and acetone (detected in 4 samples) were the VOCs detected. However, the concentrations of these compounds detected in the samples did not exceed any applicable CTDEP RSRs. The laboratory acknowledged that the presence of methylene chloride and acetone in the seventeen soil samples is due to laboratory contamination.

Several polynuclear aromatic hydrocarbon (PAH) compounds were detected throughout the project corridor at varying concentrations. Total PAH concentrations ranged from ND to 152.97 ppm. Seventeen (17) samples contained concentrations of PAH compounds that exceed applicable CTDEP RSRs. The GP-3 soil sample contained the compounds benzo(a)anthracene (1.13 ppm), benzo(a)pyrene (1.21 ppm), benzo(b)fluoranthene (2.11 ppm), and chrysene (1.36 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 the Commercial/Industrial DEC.

The GP-8 soil sample contained the compounds benzo(a)anthracene (1.95 ppm) and benzo(b)fluoranthene (3.57 ppm) at concentrations that exceed their respective GB PMC. The GP-11 soil sample contained the compounds benzo(b)fluoranthene (1.33 ppm) and chrysene (1.07 ppm) at concentrations that exceed their respective GB PMC.

The GP-12 soil sample contained the compounds benzo(a)anthracene (3.57 ppm), benzo(a)pyrene (3.82 ppm), benzo(b)fluoranthene (5.87 ppm), benzo(k)fluoranthene (4.05 ppm), chrysene (4.22 ppm), and indeno(1,2,3-cd)pyrene (1.98 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-13 soil sample contained the compounds benzo(a)anthracene (1.12 ppm), benzo(a)pyrene (1.37 ppm), benzo(b)fluoranthene (2.07 ppm), benzo(k)fluoranthene (1.33 ppm), and chrysene (1.2 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-17 soil sample contained the compounds benzo(a)anthracene (2.78 ppm), benzo(a)pyrene (2.45 ppm), benzo(b)fluoranthene (3.58 ppm), benzo(k)fluoranthene (2.23 ppm), and chrysene (2.6 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-27 soil sample contained the compounds benzo(a)pyrene (1.2 ppm), benzo(b)fluoranthene (1.3 ppm), benzo(k)fluoranthene (1.04 ppm), and chrysene (1.4 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds 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-30 soil sample contained the compounds benzo(a)anthracene (5.47 ppm), benzo(a)pyrene (6.52 ppm), benzo(b)fluoranthene (8.48 ppm), benzo(k)fluoranthene (4.32 ppm), chrysene (8.08 ppm), and indeno(1,2,3-cd)pyrene (5.09 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-32 soil sample contained the compounds benzo(a)anthracene (2.93 ppm), benzo(b)fluoranthene (3.04 ppm), chrysene (4.5 ppm), and indeno(1,2,3-cd)pyrene (1.87 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-38 soil sample contained the compounds benzo(a)anthracene (4.83 ppm), benzo(a)pyrene (5.91 ppm), benzo(b)fluoranthene (6.77 ppm), benzo(k)fluoranthene (3.6 ppm), chrysene (6.9 ppm), and indeno(1,2,3-cd)pyrene (4.27 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-41 soil sample contained the compounds benzo(a)anthracene (1.1 ppm), benzo(a)pyrene (1.16 ppm), benzo(b)fluoranthene (1.29 ppm), and chrysene (1.39 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-42 soil sample contained the compounds benzo(a)anthracene (1.22 ppm), benzo(a)pyrene (1.36 ppm), benzo(b)fluoranthene (1.5 ppm), benzo(k)fluoranthene (1.01 ppm), and chrysene (1.55 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-46 soil sample contained the compounds benzo(a)anthracene (1.51 ppm), benzo(a)pyrene (1.9 ppm), benzo(b)fluoranthene (2.39 ppm), benzo(k)fluoranthene (1.97 ppm), chrysene (2.34 ppm), and indeno(1,2,3-cd)pyrene (1.52 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-47 soil sample contained the compounds benzo(a)anthracene (13.4 ppm), benzo(a)pyrene (11.4 ppm), benzo(b)fluoranthene (14.4 ppm), benzo(k)fluoranthene (14.4 ppm), chrysene (16.4 ppm), and indeno(1,2,3-cd)pyrene (6.44 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-48 soil sample contained the compounds benzo(a)anthracene (1.23 ppm), benzo(a)pyrene (1.4 ppm), benzo(b)fluoranthene (1.71 ppm), benzo(k)fluoranthene (1.38 ppm), and chrysene (1.74 ppm) at concentrations that exceed their respective GB PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, 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 (1.07 ppm), benzo(a)pyrene (1.22 ppm), benzo(b)fluoranthene (1.41 ppm), benzo(k)fluoranthene (1.41 ppm), and chrysene (1.41 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-53 soil sample contained the compounds benzo(b)fluoranthene (1.03 ppm) and chrysene (1.09 ppm) at concentrations that exceed their respective GB PMC. In addition, the compound benzo(b)fluoranthene was detected at a concentration that exceeds its 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 15.2 ppm. Arsenic was detected at concentrations that exceed its Residential and Commercial/Industrial DEC of 10 ppm in the following soil samples: GP-4 (11.4), GP-22 (11.5 ppm), GP-29 (11.4 ppm), GP-37 (10.9 ppm), GP-40 (12.0 ppm), GP-41 (11.2 ppm), GP-42 (11.2 ppm), GP-43 (12.1 ppm), GP-46 (11.8 ppm), GP-47 (14.4 ppm), GP-50 (12.2 ppm), GP-52 (13.0 ppm), and GP-53 (15.2 ppm).

Leachable barium and lead (via SPLP) were detected at varying concentrations throughout the project corridor. However, the concentrations detected do not exceed any applicable CTDEP RSR Criteria.

## 5.3 Quality Assurance/Quality Control Samples

The field blank (FB) and trip blank (TB) water samples were collected on each day of sampling activities. The five 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 barium was detected at extremely low concentrations in the FB-3 (0.0006 ppm) and FB-5 (0.0007 ppm) field blank samples. The presence of the small barium concentrations may be due to field contamination or the metals may have been present in the laboratory-supplied water. In addition, the VOC methylene chloride was detected in the TB-4 (5.1 ppb) trip blank sample. The laboratory acknowledged that the presence of methylene chloride in the sample is due to laboratory contamination. 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 C.

# 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, seven (7) 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-3 & GP-4: 1738 Boston Post Road

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 soil 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, the GP-4 soil sample results indicate the presence of total arsenic contamination at slightly elevated concentrations in shallow soil ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

**AOEC #2:** Borings GP-8, GP-11, GP-12, & GP-13: 1620 - 1650 Boston Post Road

Analytical results from the soil samples collected from borings GP-8, GP-11, GP-12, and GP-13 indicate 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 GB PMC, and Residential and Commercial/Industrial DEC.

**AOEC #3:** Boring GP-17: 1550 Boston Post Road

Analytical results from the soil sample collected from boring GP-17 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soil ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GB PMC, and Residential and Commercial/Industrial DEC.

**AOEC #4:** Boring GP-22: 1500 Boston Post Road

Analytical results from the soil sample collected from boring GP-22 indicate the presence of total arsenic 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 Residential and Commercial/Industrial DEC.

**AOEC #5:** Borings GP-27, GP-29, GP-30, & GP-32: 1461-1475 Boston Post Rd.

Analytical results from the soil samples collected from borings GP-27, GP-30, and GP-32 indicate 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 GB PMC, and Residential and Commercial/Industrial DEC. Analytical results from the soil samples collected from boring GP-29 indicate the presence of total arsenic contamination at a slightly elevated concentration in soil ranging from 1.2 – 2.4 meters (4 to 8 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

**AOEC #6:** Borings GP-37, GP-38, GP-40, GP-41, GP-42, and GP-43: 1553-1607 Boston Post Road

Analytical results from the soil samples collected from borings GP-38, GP-41, and GP-42 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. In addition, the soil samples from GP-37, GP-40, GP-41, GP-42, and GP-43 also contained total arsenic 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 Residential and Commercial/Industrial DEC.

**AOEC #7:** Borings GP-46, GP-47, GP-48, GP-50, GP-52, & GP-53: 1755-1777 Boston Post Road

Analytical results from the soil samples collected from borings GP-46, GP-47, GP-48, GP-52, and GP-53 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. 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-46, GP-47, GP-50, GP-52, and GP-53. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

## 7.0 RECOMMENDATIONS

The results of the Task 210 – Surficial Site Investigation for the Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line in Milford, Connecticut indicate the presence of semi-volatile (PAH) and total arsenic 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. Seven 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 Roses Mill Road to the Orange Town Line 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<br>Logical Env. Solutions | David R. Stock, P.E.<br>Program Manager | Jane Witherell, P.E., L.E.P.<br>Project Engineer |

# TABLES

**TABLE 1(a) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.: Sample Depth: | GP-1 0-0.6m 0'-2' | GP-2 1.2-2.4m 4'-8' | GP-3 0-0.6m 0'-2' | GP-4 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) | BDL | BDL | 62.6 | BDL | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | | | | | | |
| Methylene Chloride | ND | ND | 165 | 121 | 1,000 ppb | 82,000/760,000 ppb |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Benzo(a)anthracene | ND | ND | ***1.13*** | ND | **1 ppm** | **1/7.8 ppm** |
| Benzo(a)pyrene | ND | ND | ***1.21*** | ND | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ND | ND | ***2.11*** | ND | **1 ppm** | **1/7.8 ppm** |
| Benzo(k)fluoranthene | ND | ND | 0.97 | ND | 1 ppm | 8.4/78 ppm |
| Chrysene | ND | ND | ***1.36*** | ND | **1 ppm** | 84/780 ppm |
| Fluoranthene | ND | ND | 2.12 | ND | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | ND | ND | 0.64 | ND | 1 ppm | 1/7.8 ppm |
| Phenanthrene | ND | ND | 0.68 | ND | 40 ppm | 1,000/2,500 ppm |
| Pyrene | ND | ND | 2.24 | ND | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | - | 12.46 | - | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | 5.91 | 6.02 | 7.86 | ***11.4*** | | **10/10 ppm** |
| Barium | 26.6 | 32.4 | 20.2 | 13.8 | | 4,700/140,000 ppm |
| Cadmium | 0.14 | 0.06 | 0.25 | 0.09 | | 34/1,000 ppm |
| Chromium | 15.4 | 13.8 | 12.2 | 25.1 | | 100/100 ppm |
| Lead | 31.0 | 6.44 | 24.2 | 7.33 | | 500/1,000 ppm |
| Mercury | 0.016 | ND | 0.011 | BDL | | 20/610 ppm |
| Selenium | 5.44 | BDL | ND | 6.64 | | 340/10,000 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.15 | 0.35 | 0.25 | 0.08 | 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(b) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-5<br>0-0.6m<br>0'-2' | GP-6<br>0.6-1.2m<br>2'-4' | GP-7<br>1.2-2m<br>4'-6.5' | GP-8<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | 349 | BDL | BDL | 160 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | | | | | | |
| Methylene Chloride | 182 | 106 | ND | 159 | 1,000 ppb | 82,000/760,000 ppb |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Benzo(a)anthracene | ND | BDL | ND | ***1.95*** | **1 ppm** | **1**/7.8 ppm |
| Benzo(b)fluoranthene | ND | ND | ND | ***3.57*** | **1 ppm** | **1**/7.8 ppm |
| Fluoranthene | BDL | 0.45 | ND | 4.33 | 56 ppm | 1,000/2,500 ppm |
| Phenanthrene | ND | BDL | ND | 1.82 | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | 0.45 | - | 11.67 | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | 6.5 | ND | 6.25 | ND | | 10/10 ppm |
| Barium | 31.3 | 11.0 | 14.3 | 36.6 | | 4,700/140,000 ppm |
| Cadmium | 0.16 | 0.1 | ND | 0.64 | | 34/1,000 ppm |
| Chromium | 24.6 | 9.35 | 15.2 | 14.7 | | 100/100 ppm |
| Lead | 16.7 | 4.2 | 4.94 | 121 | | 500/1,000 ppm |
| Mercury | ND | ND | ND | 0.057 | | 20/610 ppm |
| Selenium | ND | ND | 5.32 | 7.78 | | 340/10,000 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.05 | 0.08 | 0.12 | 0.2 | 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(c) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-9<br>0.6-1.2m<br>2'-4' | GP-10<br>0-0.6m<br>0'-2' | GP-11<br>0-0.6m<br>0'-2' | GP-12<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | BDL | 20.8 | 50.8 | 109 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | | | | | | |
| Methylene Chloride | 157 | 209 | 168 | 248 | 1,000 ppb | 82,000/760,000 ppb |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Benzo(a)anthracene | ND | 0.56 | 0.9 | ***3.57*** | **1 ppm** | 1/7.8 ppm |
| Benzo(a)pyrene | ND | BDL | 0.95 | ***3.82*** | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ND | 0.83 | ***1.33*** | ***5.87*** | **1 ppm** | 1/7.8 ppm |
| Benzo(k)fluoranthene | ND | BDL | 0.99 | ***4.05*** | **1 ppm** | 8.4/78 ppm |
| Chrysene | ND | 0.72 | ***1.07*** | ***4.22*** | **1 ppm** | 84/780 ppm |
| Fluoranthene | ND | 1.19 | 1.85 | 7.15 | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | ND | BDL | 0.48 | ***1.98*** | **1 ppm** | 1/7.8 ppm |
| Phenanthrene | ND | 0.74 | 0.96 | 3.72 | 40 ppm | 1,000/2,500 ppm |
| Pyrene | ND | 1.2 | 1.86 | 7.87 | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | 5.24 | 10.39 | 42.25 | | |
| Total RCRA 8 Metals – ppm | | | | | | |
| Arsenic | BDL | 9.72 | 7.84 | 6.98 | | 10/10 ppm |
| Barium | 13.7 | 33.6 | 33.8 | 42.3 | | 4,700/140,000 ppm |
| Cadmium | ND | 0.08 | 0.24 | 0.34 | | 34/1,000 ppm |
| Chromium | 20.8 | 20.1 | 16.2 | 17.4 | | 100/100 ppm |
| Lead | 5.81 | 18.4 | 91.0 | 138 | | 500/1,000 ppm |
| Mercury | ND | 0.019 | 0.033 | 0.053 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.1 | 0.12 | 0.12 | 0.34 | 10.0 ppm | |
| Lead | ND | ND | ND | 0.1 | 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(d) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-13<br>0-0.6m<br>0'-2' | GP-14<br>0.6-1.2m<br>2'-4' | GP-15<br>0-0.6m<br>0'-2' | GP-16<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | 77.5 | BDL | 43.5 | 178 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | | | | | | |
| Methylene Chloride | 148 | 174 | 208 | ND | 1,000 ppb | 82,000/760,000 ppb |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Acenaphthylene | 0.33 | ND | ND | ND | 84 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | ***1.12*** | ND | 0.35 | ND | **1 ppm** | **1**/7.8 ppm |
| Benzo(a)pyrene | ***1.37*** | ND | BDL | ND | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ***2.07*** | ND | 0.57 | ND | **1 ppm** | **1**/7.8 ppm |
| Benzo(k)fluoranthene | ***1.33*** | ND | BDL | ND | **1 ppm** | 8.4/78 ppm |
| Chrysene | ***1.2*** | BDL | BDL | ND | **1 ppm** | 84/780 ppm |
| Fluoranthene | 1.77 | BDL | 0.68 | ND | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | 0.6 | ND | BDL | ND | 1 ppm | 1/7.8 ppm |
| Phenanthrene | 0.6 | ND | BDL | ND | 40 ppm | 1,000/2,500 ppm |
| Pyrene | 2.13 | BDL | BDL | BDL | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | 12.52 | - | 1.6 | - | | |
| Total RCRA 8 Metals – ppm | | | | | | |
| Arsenic | 9.44 | ND | BDL | ND | | 10/10 ppm |
| Barium | 46.8 | 14.0 | 21.1 | 15.3 | | 4,700/140,000 ppm |
| Cadmium | 0.34 | 0.09 | 0.12 | ND | | 34/1,000 ppm |
| Chromium | 20.1 | 9.53 | 12.0 | 4.86 | | 100/100 ppm |
| Lead | 122 | 11.6 | 64.8 | 7.03 | | 500/1,000 ppm |
| Mercury | 0.034 | ND | 0.011 | ND | | 20/610 ppm |
| Selenium | 8.21 | ND | ND | ND | | 340/10,000 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.11 | 0.13 | 0.07 | 0.08 | 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 Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-17<br>0-0.6m<br>0'-2' | GP-18<br>0.6-1.2m<br>2'-4' | GP-19<br>0-0.6m<br>0'-2' | GP-20<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | 88.7 | BDL | BDL | 72.4 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | ND | ND | ND | ND | | |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Anthracene | 0.39 | ND | ND | ND | 400 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | ***2.78*** | ND | ND | ND | **1 ppm** | 1/7.8 ppm |
| Benzo(a)pyrene | ***2.45*** | ND | ND | ND | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ***3.58*** | ND | ND | ND | **1 ppm** | 1/7.8 ppm |
| Benzo(k)fluoranthene | ***2.23*** | ND | ND | ND | **1 ppm** | 8.4/78 ppm |
| Chrysene | ***2.6*** | ND | ND | ND | **1 ppm** | 84/780 ppm |
| Fluoranthene | 3.89 | ND | ND | ND | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | 1.0 | ND | ND | ND | 1 ppm | 1/7.8 ppm |
| Phenanthrene | 1.34 | ND | ND | ND | 40 ppm | 1,000/2,500 ppm |
| Pyrene | 5.44 | ND | ND | ND | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | 25.7 | - | - | - | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Barium | 14.4 | 20.6 | 42.2 | 28.0 | | 4,700/140,000 ppm |
| Cadmium | 0.1 | 0.06 | 0.14 | 0.19 | | 34/1,000 ppm |
| Chromium | 4.66 | 4.66 | 14.8 | 11.7 | | 100/100 ppm |
| Lead | 4.99 | 2.96 | 21.8 | 15.3 | | 500/1,000 ppm |
| Mercury | ND | ND | 0.013 | 0.019 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.13 | 0.09 | 0.29 | 0.13 | 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(f) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-21<br>1.2-2.1m<br>4'-7' | GP-22<br>0.6-1.2m<br>2'-4' | GP-23<br>0-0.6m<br>0'-2' | GP-24<br>1.2-2.4m<br>4'-8' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | BDL | BDL | 200 | BDL | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | ND | ND | ND | ND | | |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Acenaphthylene | ND | ND | 0.37 | ND | 84 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | ND | ND | 0.47 | ND | 1 ppm | 1/7.8 ppm |
| Benzo(a)pyrene | ND | ND | 0.69 | ND | 1 ppm | 1/1 ppm |
| Benzo(b)fluoranthene | ND | ND | 0.83 | ND | 1 ppm | 1/7.8 ppm |
| Chrysene | ND | ND | 0.86 | ND | 1 ppm | 84/780 ppm |
| Fluoranthene | ND | ND | 1.07 | ND | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | ND | ND | 0.51 | ND | 1 ppm | 1/7.8 ppm |
| Phenanthrene | ND | ND | 0.46 | ND | 40 ppm | 1,000/2,500 ppm |
| Pyrene | ND | ND | 1.05 | ND | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | - | 6.31 | - | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | ND | ***11.5*** | 9.86 | ND | | **10/10 ppm** |
| Barium | 10.4 | 25.8 | 38.7 | 10.1 | | 4,700/140,000 ppm |
| Cadmium | 0.04 | ND | 0.34 | 0.1 | | 34/1,000 ppm |
| Chromium | 6.08 | 12.6 | 12.6 | 9.7 | | 100/100 ppm |
| Lead | 4.74 | 8.44 | 66.0 | 4.66 | | 500/1,000 ppm |
| Mercury | ND | 0.026 | 0.039 | 0.018 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.11 | 0.04 | 0.05 | 0.02 | 10.0 ppm | |
| Lead | ND | 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(g) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-25<br>0-0.6m<br>0'-2' | GP-26<br>0.6-1.2m<br>2'-4' | GP-27<br>0-0.6m<br>0'-2' | GP-28<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | BDL | BDL | 67.2 | 33.8 | 2,500 ppm | **500**/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | ND | ND | ND | ND | | |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Benzo(a)anthracene | ND | ND | 0.92 | ND | 1 ppm | 1/7.8 ppm |
| Benzo(a)pyrene | ND | ND | ***1.2*** | ND | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ND | ND | ***1.3*** | ND | **1 ppm** | 1/7.8 ppm |
| Benzo(k)fluoranthene | ND | ND | ***1.04*** | ND | **1 ppm** | 8.4/78 ppm |
| Chrysene | ND | ND | ***1.4*** | ND | **1 ppm** | 84/780 ppm |
| Fluoranthene | ND | ND | 1.87 | ND | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | ND | ND | 0.81 | ND | 1 ppm | 1/7.8 ppm |
| Phenanthrene | ND | ND | 0.82 | ND | 4 ppm | 1,000/2,500 ppm |
| Pyrene | ND | ND | 1.82 | ND | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | - | 11.18 | - | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | 8.99 | BDL | 7.86 | 7.39 | | 10/10 ppm |
| Barium | 16.5 | 10.1 | 31.8 | 15.8 | | 4,700/140,000 ppm |
| Cadmium | 0.04 | 0.08 | 0.29 | 0.1 | | 34/1,000 ppm |
| Chromium | 20.7 | 7.28 | 10.8 | 11.6 | | 100/100 ppm |
| Lead | 7.8 | 6.49 | 149 | 47.8 | | 500/1,000 ppm |
| Mercury | 0.043 | ND | 0.018 | 0.02 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.04 | 0.02 | 0.04 | 0.02 | 10.0 ppm | |
| Lead | ND | ND | 0.03 | 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(h) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-29<br>1.2-2.4m<br>4'-8' | GP-30<br>0-0.6m<br>0'-2' | GP-31<br>0-0.6m<br>0'-2' | GP-32<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | BDL | 390 | 88.2 | 254 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | ND | ND | ND | ND | | |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Acenaphthylene | ND | 2.22 | ND | BDL | 84 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | 0.34 | ***5.47*** | 0.6 | ***2.93*** | **1 ppm** | **1**/7.8 ppm |
| Benzo(a)pyrene | BDL | ***6.52*** | 0.73 | BDL | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | 0.54 | ***8.48*** | 0.83 | ***3.04*** | **1 ppm** | **1/7.8 ppm** |
| Benzo(k)fluoranthene | BDL | ***4.32*** | 0.75 | BDL | **1 ppm** | 8.4/78 ppm |
| Chrysene | BDL | ***8.08*** | 0.92 | ***4.5*** | **1 ppm** | 84/780 ppm |
| Fluoranthene | 0.76 | 11.7 | 1.4 | 6.76 | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | 0.33 | ***5.09*** | 0.55 | ***1.87*** | **1 ppm** | **1**/7.8 ppm |
| Phenanthrene | BDL | 6.37 | 0.67 | 3.5 | 40 ppm | 1,000/2,500 ppm |
| Pyrene | BDL | 10.5 | 1.21 | 6.0 | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | 1.97 | 68.75 | 7.66 | 28.6 | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | ***11.4*** | 7.23 | BDL | 8.53 | | **10/10 ppm** |
| Barium | 18.3 | 34.6 | 30.4 | 30.5 | | 4,700/140,000 ppm |
| Cadmium | ND | 0.45 | 0.28 | 0.24 | | 34/1,000 ppm |
| Chromium | 12.5 | 6.06 | 10.3 | 7.64 | | 100/100 ppm |
| Lead | 8.64 | ***557*** | 73.3 | 111 | | **500**/1,000 ppm |
| Mercury | 0.022 | 0.072 | 0.019 | 0.047 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.03 | 0.07 | 0.06 | 0.08 | 10.0 ppm | |
| Lead | ND | 0.07 | BDL | 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(i) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-33<br>0.6-1.2m<br>2'-4' | GP-34<br>0-0.6m<br>0'-2' | GP-35<br>0-0.6m<br>0'-2' | GP-36<br>0.6-1.2m<br>2'-4' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | 364 | 219 | 32.8 | BDL | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | ND | ND | ND | ND | | |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Benzo(a)anthracene | 0.42 | 0.46 | BDL | ND | 1 ppm | 1/7.8 ppm |
| Benzo(b)fluoranthene | 0.7 | 0.59 | 0.43 | ND | 1 ppm | 1/7.8 ppm |
| Fluoranthene | 0.7 | 0.96 | 0.48 | ND | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | 0.36 | 0.34 | 0.34 | ND | 1 ppm | 1/7.8 ppm |
| Phenanthrene | BDL | 0.49 | ND | ND | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | 2.18 | 2.84 | 1.25 | - | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | 9.75 | 9.82 | 5.53 | 6.4 | | 10/10 ppm |
| Barium | 31.2 | 30.9 | 15.4 | 8.24 | | 4,700/140,000 ppm |
| Cadmium | 0.19 | 0.2 | 0.16 | 0.08 | | 34/1,000 ppm |
| Chromium | 10.6 | 10.9 | 12.1 | 11.0 | | 100/100 ppm |
| Lead | 39.5 | 40.2 | 23.5 | 6.04 | | 500/1,000 ppm |
| Mercury | 0.033 | 0.048 | ND | BDL | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.09 | 0.08 | 0.07 | 0.02 | 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(j) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-37<br>1.2-2.4m<br>4'-8' | GP-38<br>0-0.6m<br>0'-2' | GP-39<br>0-0.6m<br>0'-2' | GP-40<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | BDL | 95.2 | 246 | 26.6 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | | | | | | |
| Acetone | ND | ND | 299 | ND | 140,000 ppb | 500,000/1,000,000 ppb |
| Methylene Chloride | ND | 76 | ND | ND | 1,000 ppb | 82,000/760,000 ppb |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Acenaphthylene | ND | 2.69 | ND | ND | 84 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | ND | ***4.83*** | ND | ND | **1 ppm** | 1/7.8 ppm |
| Benzo(a)pyrene | ND | ***5.91*** | BDL | ND | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ND | ***6.77*** | BDL | ND | **1 ppm** | 1/7.8 ppm |
| Benzo(k)fluoranthene | ND | ***3.6*** | ND | ND | **1 ppm** | 8.4/78 ppm |
| Chrysene | ND | ***6.9*** | BDL | ND | **1 ppm** | 84/780 ppm |
| Fluoranthene | ND | 8.75 | BDL | ND | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | ND | ***4.27*** | ND | ND | **1 ppm** | 1/7.8 ppm |
| Phenanthrene | ND | 4.98 | ND | ND | 40 ppm | 1,000/2,500 ppm |
| Pyrene | ND | 9.41 | ND | ND | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | 58.11 | - | - | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | ***10.9*** | 7.63 | 9.36 | ***12.0*** | | **10/10 ppm** |
| Barium | 26.8 | 41.6 | 33.5 | 40.2 | | 4,700/140,000 ppm |
| Cadmium | 0.07 | 0.63 | 0.17 | ND | | 34/1,000 ppm |
| Chromium | 11.2 | 12.8 | 15.6 | 15.2 | | 100/100 ppm |
| Lead | 10.8 | 322 | 23.4 | 16.6 | | 500/1,000 ppm |
| Mercury | 0.029 | 0.042 | 0.021 | 0.025 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.03 | 0.04 | 0.04 | 0.04 | 10.0 ppm | |
| Lead | ND | 0.04 | BDL | 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(k) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-41<br>0-0.6m<br>0'-2' | GP-42<br>0-0.6m<br>0'-2' | GP-43<br>0-0.6m<br>0'-2' | GP-44<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | 21.4 | 40.9 | 52.4 | 76.7 | 2,500 ppm | **500**/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | ND | ND | ND | ND | | |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Anthracene | BDL | 0.36 | ND | BDL | 400 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | ***1.1*** | ***1.22*** | 0.61 | 0.53 | **1 ppm** | 1/7.8 ppm |
| Benzo(a)pyrene | ***1.16*** | ***1.36*** | 0.69 | BDL | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ***1.29*** | ***1.5*** | 0.83 | 0.7 | **1 ppm** | 1/7.8 ppm |
| Benzo(k)fluoranthene | 0.82 | ***1.01*** | BDL | BDL | **1 ppm** | 8.4/78 ppm |
| Chrysene | ***1.39*** | ***1.55*** | 0.95 | 0.76 | **1 ppm** | 84/780 ppm |
| Fluoranthene | 2.1 | 2.44 | 1.51 | 1.28 | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | 0.73 | 0.9 | 0.49 | 0.42 | 1 ppm | 1/7.8 ppm |
| Phenanthrene | 0.88 | 1.38 | 1.11 | 0.73 | 40 ppm | 1,000/2,500 ppm |
| Pyrene | 2.04 | 2.38 | 1.48 | 1.1 | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | 11.51 | 14.1 | 7.67 | 5.52 | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | ***11.2*** | ***11.2*** | ***12.1*** | 9.86 | | **10/10 ppm** |
| Barium | 34.3 | 29.2 | 27.5 | 31.1 | | 4,700/140,000 ppm |
| Cadmium | 0.21 | 0.13 | 0.19 | 0.08 | | 34/1,000 ppm |
| Chromium | 12.4 | 19.4 | 12.1 | 9.84 | | 100/100 ppm |
| Lead | 52.2 | 53.0 | 47.2 | 9.52 | | 500/1,000 ppm |
| Mercury | 0.027 | 0.038 | 0.021 | 0.048 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.05 | 0.05 | 0.06 | 0.05 | 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 Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-45<br>0-0.6m<br>0'-2' | GP-46<br>0-0.6m<br>0'-2' | GP-47<br>0.6-1.2m<br>2'-4' | GP-48<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | BDL | 104 | 25.0 | 76.0 | 500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | | | | | | |
| Acetone | ND | ND | 993 | ND | 140,000 ppb | 500,000/1,000,000 ppb |
| Methylene Chloride | ND | ND | 130 | ND | 1,000 ppb | 82,000/760,000 ppb |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Acenaphthylene | ND | BDL | 3.43 | BDL | 84 ppm | 1,000/2,500 ppm |
| Anthracene | ND | BDL | 4.8 | BDL | 400 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | ND | ***1.51*** | ***13.4*** | ***1.23*** | **1 ppm** | **1/7.8 ppm** |
| Benzo(a)pyrene | ND | ***1.9*** | ***11.4*** | ***1.4*** | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ND | ***2.39*** | ***14.4*** | ***1.71*** | **1 ppm** | **1/7.8 ppm** |
| Benzo(k)fluoranthene | ND | ***1.97*** | ***14.4*** | ***1.38*** | **1 ppm** | **8.4**/78 ppm |
| Chrysene | ND | ***2.34*** | ***16.4*** | ***1.74*** | **1 ppm** | 84/780 ppm |
| Fluoranthene | ND | 3.42 | 27.8 | 2.15 | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | ND | ***1.52*** | ***6.44*** | 0.95 | **1 ppm** | 1/7.8 ppm |
| Phenanthrene | ND | 1.6 | 15.8 | 0.87 | 40 ppm | 1,000/2,500 ppm |
| Pyrene | ND | 3.29 | 24.4 | 2.04 | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | 19.94 | 152.67 | 13.47 | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | 9.8 | ***11.8*** | ***14.4*** | 5.3 | | **10/10 ppm** |
| Barium | 20.2 | 24.1 | 43.5 | 36.2 | | 4,700/140,000 ppm |
| Cadmium | 0.08 | 0.27 | 0.04 | 0.31 | | 34/1,000 ppm |
| Chromium | 19.3 | 14.7 | 24.2 | 16.3 | | 100/100 ppm |
| Lead | 10.4 | 102 | 20.6 | 149 | | 500/1,000 ppm |
| Mercury | BDL | 0.032 | 0.033 | 0.041 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.06 | 0.06 | 0.08 | 0.06 | 10.0 ppm | |
| Lead | ND | 0.03 | ND | 0.05 | 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(m) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-49<br>0.6-1.2m<br>2'-4' | GP-50<br>0-0.6m<br>0'-2' | GP-51<br>0-0.6m<br>0'-2' | GP-52<br>0.6-1.2m<br>2'-4' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial |
|---|---|---|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | BDL | 31.4 | 29.2 | 33.0 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | | | | | | |
| Acetone | 571 | ND | ND | 250 | 140,000 ppb | 500,000/1,000,000 ppb |
| PAHs - EPA Method 8270 (ppm) | | | | | | |
| Acenaphthylene | ND | ND | ND | 0.38 | 84 ppm | 1,000/2,500 ppm |
| Benzo(a)anthracene | ND | BDL | 0.47 | ***1.07*** | **1 ppm** | **1**/7.8 ppm |
| Benzo(a)pyrene | ND | BDL | BDL | ***1.22*** | **1 ppm** | **1/1 ppm** |
| Benzo(b)fluoranthene | ND | 0.41 | 0.62 | ***1.41*** | **1 ppm** | 1/7.8 ppm |
| Benzo(k)fluoranthene | ND | BDL | BDL | ***1.41*** | **1 ppm** | 8.4/78 ppm |
| Chrysene | ND | BDL | 0.69 | ***1.41*** | **1 ppm** | 84/780 ppm |
| Fluoranthene | ND | 0.71 | 1.04 | 1.94 | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | ND | BDL | 0.34 | 0.71 | 1 ppm | 1/7.8 ppm |
| Phenanthrene | ND | BDL | 0.6 | 1.06 | 40 ppm | 1,000/2,500 ppm |
| Pyrene | ND | BDL | 1.05 | 2.05 | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | - | 1.12 | 4.81 | 12.66 | | |
| Total RCRA 8 Metals - ppm | | | | | | |
| Arsenic | 6.2 | ***12.2*** | 8.72 | ***13.0*** | | **10/10 ppm** |
| Barium | 11.8 | 26.8 | 20.5 | 25.1 | | 4,700/140,000 ppm |
| Cadmium | 0.06 | 0.15 | 0.12 | 0.13 | | 34/1,000 ppm |
| Chromium | 12.5 | 13.0 | 15.0 | 11.6 | | 100/100 ppm |
| Lead | 6.34 | 36.0 | 45.0 | 40.5 | | 500/1,000 ppm |
| Mercury | BDL | 0.044 | 0.02 | 0.025 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | | | | |
| Barium | 0.04 | 0.06 | 0.05 | 0.07 | 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(n) - Results of Geoprobe Boring Soil Sample Analyses**
**Reconstruction of Route 1 (Boston Post Road) from Roses Mill Road to the Orange Town Line**
**Milford, Connecticut**

| Boring I.D.:<br>Sample Depth: | GP-53<br>0-0.6m<br>0'-2' | CTDEP Pollutant Mobility Criteria – GB Groundwater Area | CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial |
|---|---|---|---|
| TPH - EPA Method 418.1 (ppm) | 33.3 | 2,500 ppm | 500/2,500 ppm |
| VOCs - EPA Method 8260 (ppb) | ND | | |
| PAHs - EPA Method 8270 (ppm) | | | |
| Benzo(a)anthracene | 0.77 | 1 ppm | 1/7.8 ppm |
| Benzo(a)pyrene | 0.93 | 1 ppm | 1/1 ppm |
| Benzo(b)fluoranthene | ***1.03*** | **1 ppm** | **1**/7.8 ppm |
| Benzo(k)fluoranthene | 0.7 | 1 ppm | 8.4/78 ppm |
| Chrysene | ***1.09*** | **1 ppm** | 84/780 ppm |
| Fluoranthene | 1.58 | 56 ppm | 1,000/2,500 ppm |
| Indeno(1,2,3-cd)pyrene | 0.54 | 1 ppm | 1/7.8 ppm |
| Phenanthrene | 0.84 | 40 ppm | 1,000/2,500 ppm |
| Pyrene | 1.56 | 40 ppm | 1,000/2,500 ppm |
| Total PAHs | 9.04 | | |
| Total RCRA 8 Metals - ppm | | | |
| Arsenic | ***15.2*** | | **10/10 ppm** |
| Barium | 32.6 | | 4,700/140,000 ppm |
| Cadmium | 0.23 | | 34/1,000 ppm |
| Chromium | 13.6 | | 100/100 ppm |
| Lead | 34.0 | | 500/1,000 ppm |
| Mercury | 0.043 | | 20/610 ppm |
| SPLP RCRA 8 Metals - ppm | | | |
| Barium | 0.07 | 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.

# APPENDIX A
# Boring Logs

| Date Started: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-1 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 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 = 1.4 ppm |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| | | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| | | Dark-Brown Organic SILT | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 3.4m (8' - 11'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | | |
| 4 | 13' | Refusal at 3.4 m (11') on Bluish-Green Phyllite | |
| 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-2 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 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' | | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0.9 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | Dark-Brown Organic SILT | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 3.4m (8' - 11'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | | |
| 4 | 13' | Refusal at 3.4 m (11') on Bluish-Green Phyllite | |
| 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-3 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 = 0.5 ppm |
| 0.6 | 2' | Brown fine to medium SAND, little fine to coarse Gravel, 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' | | |
| 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-4 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 fine to medium SAND, little fine to coarse Gravel, trace Silt | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0.6 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-5 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-6 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 = 0.3 ppm |
| 0.6 | 2' | | |
| | | Light-Brown fine to medium SAND, trace fine Gravel | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0.5 ppm |
| 1.2 | 4' | | |
| | | Light-Brown fine SAND, little Silt | Macro Core Sample 1.2 - 1.8 m (4' - 6'): |
| 1.5 | 5' | | PID = 0.1 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 1.8 m (6') on Bluish-Green Phyllite | |
| 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: 12/13/99 | **Logical Environmental Solutions**<br>**Geoprobe Boring Log** | Boring No.: GP-7 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT<br>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 = 0.4 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | Light-Brown fine to medium SAND, trace fine Gravel | PID = 0.5 ppm |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2 m (4' - 6.5'): |
| 1.5 | 5' | Light-Brown fine SAND, little Silt | PID = 0.6 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | Refusal at 2 m (6.5') 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-8 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| 1.2 | 4' | Gray-Brown 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 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | Light-Brown fine SAND, little Silt | Macro Core Sample 2.4 - 2.74m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-9 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0.7 ppm |
| 1.2 | 4' | Gray-Brown 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 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | Light-Brown fine SAND, little Silt | Macro Core Sample 2.4 - 2.74m (8' - 9'): |
| 2.74 | 9' | | PID = 0 ppm |
| 3 | 10' | Refusal at 2.74 m (9') 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: 12/13/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-10 |
|---|---|---|
| Date Finished: 12/13/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 = 0.4 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| | | Brown SILT, little fine to coarse Gravel, trace fine Sand | |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| 1.5 | 5' | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/14/99 | **Logical Environmental Solutions**<br>**Geoprobe Boring Log** | Boring No.: GP-11 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT<br>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 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| | | Brown SILT, little fine to coarse Gravel, trace fine Sand | |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| 1.5 | 5' | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-12 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 | |
| | | | 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-13 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-14 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | | |
| 0.9 | 3' | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 1.2 | 4' | | PID = 0.2 ppm |
| 1.5 | 5' | | Macro Core Sample 1.2 - 1.8 m (4' - 6'): |
| 1.8 | 6' | | PID = 0 ppm |
| 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-15 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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'): PID = 0 ppm |
| 0.3 | 1' | | |
| 0.6 | 2' | | |
| 0.9 | 3' | Dark-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt | Macro Core Sample 0.6 - 1.2 m (2' - 4'): PID = 0 ppm |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): PID = 0 ppm |
| 1.8 | 6' | | |
| | | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-16 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 |
| | | Light-Brown fine SAND & SILT, trace fine Gravel | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0 ppm |
| | | Light-Brown fine SAND & SILT, trace fine Gravel | |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 3.7m (8' - 12'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| | | Light-Brown fine SAND & SILT, trace fine Gravel | |
| 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: 12/14/99 | **Logical Environmental Solutions**<br>**Geoprobe Boring Log** | Boring No.: GP-17 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT<br>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 = 0 ppm |
| 0.6 | 2' | Light-Brown fine SAND & SILT, trace fine Gravel | |
| | | | 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 - 2.4m (4' - 8'): |
| | | | PID = 0 ppm |
| 1.8 | 6' | | |
| | | Light-Brown fine SAND & SILT, trace fine Gravel | |
| 2.1 | 7' | | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 3.7m (8' - 12'): |
| 2.74 | 9' | | PID = 0 ppm |
| 3 | 10' | | |
| 3.4 | 11' | Brown fine to medium SAND, little Silt, trace fine to coarse Gravel | |
| 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-18 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT Route 1 Improvements | Inspector: Cindy Knight |

| Depth m | Depth ft | Description | Comments |
|---|---|---|---|
| | | CONCRETE - 5 cm (2") | Macro Core Sample 0 - 0.6m (0' - 2'): |
| 0.3 | 1' | | PID = 0 ppm |
| 0.6 | 2' | Light-Brown fine SAND & SILT, trace fine Gravel | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0.2 ppm |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0 ppm |
| 1.8 | 6' | | |
| | | Light-Brown fine SAND & SILT, trace fine Gravel | |
| 2.1 | 7' | | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 3 m (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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-19 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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, trace Silt | 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' | | |
| 2.4 | 8' | Refusal at 1.5 m (5') 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-20 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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, trace Silt | 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' | | |
| 2.4 | 8' | Refusal at 1.5 m (5') 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: 12/14/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-21 |
|---|---|---|
| Date Finished: 12/14/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | Dark-Brown SILT, little fine Sand, trace fine to coarse Gravel | PID = 0 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | PID = 0 ppm |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| 1.5 | 5' | | PID = 0.2 ppm |
| | | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-22 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | Dark-Brown SILT, little fine Sand, trace fine to coarse Gravel | PID = 0 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | PID = 0.2 ppm |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| 1.5 | 5' | | PID = 0 ppm |
| | | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-23 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | | |
| 0.9 | 3' | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 1.2 | 4' | | PID = 0 ppm |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.8 | 6' | | PID = 0 ppm |
| 2.1 | 7' | | |
| 2.4 | 8' | Light-Brown fine SAND & SILT, trace fine Gravel | Macro Core Sample 2.4 - 3 m (8' - 10'): |
| 2.74 | 9' | | PID = 0 ppm |
| | | Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-24 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | | |
| | | | 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' | | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0.1 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | Light-Brown fine SAND & SILT, trace fine Gravel | Macro Core Sample 2.4 - 3 m (8' - 10'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| | | Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-25 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | | 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' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.8 | 6' | | PID = 0 ppm |
| 2.1 | 7' | | |
| 2.4 | 8' | Light-Brown fine SAND & SILT, trace fine Gravel | Macro Core Sample 2.4 - 3 m (8' - 10'): |
| 2.74 | 9' | | PID = 0 ppm |
| | | Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-26 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | PID = 0.6 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 1.0 ppm |
| 1.2 | 4' | Light-Brown fine to medium SAND, little Silt, trace fine Gravel | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| | | | PID = 0.6 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 3.7 m (8' - 12'): |
| | | | PID = 0.5 ppm |
| 2.74 | 9' | | |
| 3 | 10' | Light-Brown fine to medium SAND, little Silt, trace fine Gravel | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-27 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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<br>Gray-Brown fine to coarse SAND, trace Silt | Macro Core Sample 0 - 0.6m (0' - 2'):<br>PID = 0.4 ppm |
| 0.6 | 2' | | |
| 0.9 | 3' | | Macro Core Sample 0.6 - 1.2m (2' - 4'):<br>PID = 0.2 ppm |
| 1.2 | 4' | Light-Brown fine to medium SAND, little Silt, trace fine Gravel | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'):<br>PID = 0.2 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | Brown fine SAND & SILT | Macro Core Sample 2.4 - 3.7 m (8' - 12'):<br>PID = 0.1 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | Brown fine to coarse SAND, little fine Gravel & Cobble, trace Silt | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-28 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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'): |
| | | Gray-Brown fine to coarse SAND, trace Silt | PID = 0 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0.2 ppm |
| | | Light-Brown fine to medium SAND, little Silt, trace fine Gravel | |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | Brown fine SAND & SILT | Macro Core Sample 2.4 - 3.7 m (8' - 12'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | Brown fine to coarse SAND, little fine Gravel & Cobble, trace Silt | |
| 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-29 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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'): |
| | | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | PID = 0 ppm |
| 0.3 | 1' | | |
| | | Black fine SAND, little Silt, trace fine Gravel | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| 1.2 | 4' | Brown fine SAND & SILT, trace fine Gravel | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0.4 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| | | Brown fine to medium SAND, little fine Gravel & Cobble, trace Silt | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-30 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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'): |
| | | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | PID = 0 ppm |
| 0.3 | 1' | | |
| | | Black fine SAND, little Silt, trace fine Gravel | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| 1.2 | 4' | Brown fine SAND & SILT, trace fine Gravel | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| | | Brown fine to medium SAND, little fine Gravel & Cobble, trace Silt | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/15/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-31 |
|---|---|---|
| Date Finished: 12/15/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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'): |
| | | Brown fine SAND & SILT, trace fine Gravel | PID = 0 ppm |
| 0.3 | 1' | | |
| | | Red-Brown fine to medium SAND, little Silt | |
| 0.6 | 2' | | |
| | | Brown fine to medium SAND, trace fine Gravel | Macro Core Sample 0.6 - 1.2m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| 1.2 | 4' | | |
| | | Black fine SAND, little Silt, trace fine to coarse Gravel | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| | | Light-Brown fine to medium SAND, little fine Gravel & Cobble, trace Silt | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/16/99 | **Logical Environmental Solutions**<br>**Geoprobe Boring Log** | Boring No.: GP-33 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT<br>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' | | |
| 0.9 | 3' | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| | | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | PID = 0.2 ppm |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| | | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-34 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | | |
| 0.9 | 3' | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| | | Brown fine to medium SAND, little fine to coarse Gravel, trace Silt | PID = 0 ppm |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| | | | PID = 0 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-35 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | Light-Brown fine SAND & SILT | PID = 0.1 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (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 - 2.1 m (4' - 7'): |
| 1.8 | 6' | | PID = 0 ppm |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-36 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | Light-Brown fine SAND & SILT | PID = 0 ppm |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0.2 ppm |
| 1.2 | 4' | Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| 1.8 | 6' | | PID = 0 ppm |
| 2.1 | 7' | | |
| 2.4 | 8' | | |
| 2.74 | 9' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-37 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 Silt, trace fine Gravel | PID = 0.1 ppm |
| 0.6 | 2' | | |
| | | Dark-Brown fine to coarse 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' | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| | | | PID = 0.4 ppm |
| 1.8 | 6' | | |
| 2.1 | 7' | Brown fine to coarse SAND, little fine Gravel & Cobble, trace Silt | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-38 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 Silt, trace fine Gravel | PID = 0.1 ppm |
| 0.6 | 2' | Dark-Brown fine to coarse 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' | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.8 | 6' | | PID = 0 ppm |
| 2.1 | 7' | Brown fine to coarse SAND, little fine Gravel & Cobble, trace Silt | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| 2.74 | 9' | | PID = 0 ppm |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-39 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT Route 1 Improvements | Inspector: Cindy Knight |

| Depth m | Depth ft | Description | Comments |
|---|---|---|---|
| | | ASPHALT - 10 cm (4") | Macro Core Sample 0 - 0.6m (0' - 2'): |
| 0.3 | 1' | | PID = 0 ppm |
| | | Brown fine to coarse SAND, trace Silt & fine to coarse Gravel | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| 1.2 | 4' | Brown SILT, trace fine Sand & Clay | |
| | | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| 1.5 | 5' | | PID = 0 ppm |
| | | Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt | |
| 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' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-40 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT Route 1 Improvements | Inspector: Cindy Knight |

| Depth m | Depth ft | Description | Comments |
|---|---|---|---|
| | | ASPHALT - 10 cm (4") | Macro Core Sample 0 - 0.6m (0' - 2'): |
| | | | PID = 0 ppm |
| 0.3 | 1' | Brown fine to coarse SAND, trace Silt & fine to coarse Gravel | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | |
| | | | PID = 0 ppm |
| 1.2 | 4' | Brown SILT, trace fine Sand & Clay | |
| | | | Macro Core Sample 1.2 - 2.1 m (4' - 7'): |
| 1.5 | 5' | | |
| | | | PID = 0 ppm |
| | | Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt | |
| 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' | Refusal at 2.1 m (7') on Bluish-Green Phyllite | |
| 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-41 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 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 ppm |
| | | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| | | | PID = 0 ppm |
| 1.8 | 6' | | |
| | | Brown fine to coarse SAND, little fine Gravel & Cobble, trace Silt | |
| 2.1 | 7' | | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-42 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 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 ppm |
| | | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| | | | PID = 0 ppm |
| 1.8 | 6' | | |
| | | Brown fine to coarse SAND, little fine Gravel & Cobble, trace Silt | |
| 2.1 | 7' | | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/16/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-43 |
|---|---|---|
| Date Finished: 12/16/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 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 ppm |
| | | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 2.4m (4' - 8'): |
| 1.5 | 5' | | PID = 0 ppm |
| 1.8 | 6' | | |
| | | Brown fine to coarse SAND, little fine Gravel & Cobble, trace Silt | |
| 2.1 | 7' | | |
| 2.4 | 8' | | Macro Core Sample 2.4 - 2.74 m (8' - 9'): |
| | | | PID = 0 ppm |
| 2.74 | 9' | | |
| 3 | 10' | | |
| 3.4 | 11' | | |
| 3.7 | 12' | Refusal at 2.74 m (9') 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-44 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT Route 1 Improvements | Inspector: Cindy Knight |

| Depth m | Depth ft | Description | Comments |
|---|---|---|---|
| 0.3 | 1' | TOPSOIL - 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel | Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm |
| 0.6 | 2' | | |
| 0.9 | 3' | Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt | Macro Core Sample 0.6 - 1.2 m (2' - 4'): PID = 0 ppm |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 1.8 m (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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-45 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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' | | |
| 0.9 | 3' | Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 1.2 | 4' | | PID = 0 ppm |
| 1.5 | 5' | | Macro Core Sample 1.2 - 1.8 m (4' - 6'): |
| 1.8 | 6' | | PID = 0 ppm |
| 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-46 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 ppm |
| | | Brown fine to medium SAND, trace fine Gravel & 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-47 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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'): |
| | | | PID = 0 ppm |
| 0.3 | 1' | Brown fine to medium SAND, trace fine Gravel & Silt | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | |
| | | | PID = 0.2 ppm |
| 1.2 | 4' | | |
| | | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | |
| | | | Macro Core Sample 1.2 - 1.8 m (4' - 6'): |
| 1.5 | 5' | | |
| | | | 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-48 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 |
| | | Brown fine to medium SAND, trace fine Gravel & Silt | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0 ppm |
| 1.2 | 4' | | |
| | | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | Macro Core Sample 1.2 - 1.8 m (4' - 6'): |
| 1.5 | 5' | | 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-49 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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'): |
| | | | PID = 0 ppm |
| 0.3 | 1' | Brown fine to medium SAND, trace fine Gravel & Silt | |
| 0.6 | 2' | | |
| | | | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | |
| | | | PID = 0.3 ppm |
| 1.2 | 4' | | |
| | | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | |
| | | | Macro Core Sample 1.2 - 1.8 m (4' - 6'): |
| 1.5 | 5' | | |
| | | | 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-50 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT Route 1 Improvements | Inspector: Cindy Knight |

| Depth m | Depth ft | Description | Comments |
|---|---|---|---|
| 0.3 | 1' | TOPSOIL - 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel | Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm |
| 0.6 | 2' | | |
| 0.9 | 3' | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | Macro Core Sample 0.6 - 1.2 m (2' - 4'): PID = 0 ppm |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 1.8 m (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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-51 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, CT Route 1 Improvements | Inspector: Cindy Knight |

| Depth m | Depth ft | Description | Comments |
|---|---|---|---|
| 0.3 | 1' | TOPSOIL - 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel | Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm |
| 0.6 | 2' | | |
| 0.9 | 3' | Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand | Macro Core Sample 0.6 - 1.2 m (2' - 4'): PID = 0 ppm |
| 1.2 | 4' | | |
| 1.5 | 5' | | Macro Core Sample 1.2 - 1.8 m (4' - 6'): 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-52 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 SILT, little fine to coarse Gravel & Cobble, trace fine Sand | Macro Core Sample 0.6 - 1.2 m (2' - 4'): |
| 0.9 | 3' | | PID = 0.2 ppm |
| 1.2 | 4' | | |
| | | | Macro Core Sample 1.2 - 1.8 m (4' - 6'): |
| 1.5 | 5' | | 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: 12/17/99 | **Logical Environmental Solutions Geoprobe Boring Log** | Boring No.: GP-53 |
|---|---|---|
| Date Finished: 12/17/99 | | Client: Maguire Group Inc. |
| Driller: Wayne Lineberry | Project Location: Task 210 Surficial Site Investigation - Milford, 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 SILT, little fine to coarse Gravel & Cobble, 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 - 1.8 m (4' - 6'): |
| 1.5 | 5' | | 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%