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**GEOTECHNICAL ENGINEERING REPORT
PROPOSED WIND RENEWABLE
GENERATING FACILITY
COLEBROOK SOUTH
FLAGG HILL ROAD
COLEBROOK, CONNECTICUT**

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GEOTECHNICAL ENGINEERING REPORT
Proposed Wind Renewable Generating Facility
Colebrook South
Flagg Hill Road
Colebrook, Connecticut



1.00 PROJECT LOCATION & DESCRIPTION

The project site is located west of Flagg Hill Road in Colebrook, Connecticut. The proposed project includes installation of three 1.6 MW wind turbines. The undeveloped site is shown on Figure 1, Locus Plan and the turbine locations are shown on Figure 2, Exploration Location Plan. The project includes constructing paved and unpaved roads, assembly areas, crane pads, surface drainage controls, pads for electrical equipment, and turbine foundations. These major features are shown on Figure 2.

2.00 GEOTECHNICAL OBJECTIVE & SCOPE

The objective of this report is to summarize the results of the subsurface investigations performed to date and provide proposed turbine foundation recommendations based on this information. Laboratory testing on soil and rock samples is currently underway and geophysical testing at turbine locations is planned. The turbine foundation design has been prepared by GZA and is presented on Wind Colebrook South, Foundation Set, Drawings B-101, B-102 and B-103, dated August 26, 2011. The turbine foundation design will be refined and finalized based on the additional information referenced above.

This report provides the exploration locations, boring and test pit logs, an evaluation of the subsurface conditions for the project, and turbine foundation recommendations.

3.00 SUBSURFACE INVESTIGATIONS

A subsurface exploration program, consisting of four test borings and fifty-two test pits, was completed from July 20 through 27, 2011 and August 22, 2011. The borings were drilled by New Hampshire Borings and the test pits were dug by HTS Construction. A GZA Engineer observed the borings, classified the subsurface materials and prepared exploration logs. Except for CSTP-1 through 9 and CSTP-37 through 47, GZA observed the test pits. These test pits were observed and logged by personnel from Civill. For completeness, these logs are included in this report.

The soils encountered were classified according to the Modified Burmister Classification system. Details of the Modified Burmister Classification system, as well as the boring and test pit logs are presented in Appendix B and C.

The as-built exploration locations were located in the field by survey performed by Riordan Land Surveying. The locations of the explorations are indicated on Figure 2. Summaries of the explorations and subsurface conditions encountered are presented on Table 1.

Borings

The borings were drilled to depths ranging from 21 to 44.5 feet below the existing ground surface. The following borings were drilled:



Boring	Location	Ground Surface Elevations, Feet
CSGZ-1	Turbine 2	1450
CSGZ-2	Turbine 1	1452
CSGZ-3	Turbine 3	1449
CSGZ-4	Turbine 3	1448

Test borings in glacial till were advanced using steel casing and rotary wash techniques. Standard Penetration Test(s) (SPTs) were performed and split spoon soil samples collected at the ground surface and at five-foot intervals thereafter, in general accordance with ASTM D1586. SPT sampling consists of advancing a 1 $\frac{3}{8}$ -inch inside diameter standard split spoon sampler at least 24 inches with a 140-pound safety hammer dropping from a height of 30 inches. The SPT value, often referred to as the "N" value, is the number of blows per foot of penetration required to drive the sampler from 6 to 18 inches of penetration.

When required, coring was performed using a diamond bit with an NX double tube, ridge-type core barrel in accordance with ASTM D-2113-83. The rock type description, the core recovery for each coring interval, and the rock quality designation (RQD) values expressed in percent for each run are recorded on the test boring logs. The RQD values reflect the quality and fracture spacing of the rock and are calculated as a summation of all unbroken core samples of four inches or more in length divided by the total length of each coring interval. The core recovery percentage and RQD values provide a qualitative understanding of the physical and engineering properties of bedrock.

Upon extraction of each core run, the rock was examined and classified according to rock type, color, weathering, hardness, fracture zones, solution cavities, foliation, and fracture inclination. The rock cores were boxed with the pertinent information transposed onto each core box.

Because casing and drilling fluid were used, depths to groundwater were not able to be measured in the boreholes during drilling. A groundwater observation well was installed in boring CSGZ-4. Groundwater measurements were taken on August 23, 2011 at CSGZ-4 and the open boring at CSGZ-1. Groundwater measurements are presented on the boring logs and summarized in Table 1. Boreholes and test pits were filled with soil cuttings upon completion.



Test Pits

The test pits were generally located at the proposed turbine foundation locations, at crane pad areas, along the proposed access roads, assembly areas, and at surface drainage control areas. The test pit locations are shown on Figure 2.

When encountered, depths to groundwater were measured in the excavated test pits. Groundwater measurements are presented on the test pit logs and summarized in Table 1.

4.00 GENERALIZED SUBSURFACE CONDITIONS

Shallow bedrock (less than three feet) was encountered in Borings CSGZ-1 and CSGZ-2 and 30 feet of rock core was obtained in each of these borings. Shallow glacial till (less than 3 feet) was encountered in Boring CSGZ-3 and CSGZ-4 and up to 30 feet of glacial till was drilled and sampled before bedrock was encountered.

A generalized description of subsurface conditions is provided below. Refer to the boring and test pit logs in Appendices B and C for more specific information.

- Approximately six to twelve inches of **topsoil** and forest mat was encountered at the ground surface. In this report, this layer is identified as topsoil.
- **Subsoil** was present directly below the topsoil and vegetation, and extended to depths between 1.5 and 4 feet. The subsoil generally consists of brown fine to coarse sand with about 10 to 35 percent silt. Indications of cobbles and boulders embedded in the subsoil layer were noted during drilling and in test pits. SPT blow counts from borings indicate relative density of the subsoil is loose.
- **Glacial till** was encountered underlying the subsoil. In the areas of the access road to Turbine 1 and Turbine 2 and at these turbine locations, the glacial till typically extends to about 4 to 6 feet below grade. At Turbine 3, the glacial till was encountered to a depth of 34 feet below grade. The glacial till consists of generally gray medium dense to very dense, unsorted gravel and sand, with some to little silt. Cobbles and boulders should also be anticipated within the glacial till.
- **Bedrock** is described as hard, moderately weathered to fresh, extremely fractured to sound, fine to medium grained, high angle foliation, white and black gneiss. At Turbines 1 and 2, depth to bedrock is 2 to 3 feet below ground surface. At Turbine 3, the bedrock is up to 34 feet below the existing ground surface. Except for two core runs, bedrock recovery expressed as a percentage (the length of core recovered divided by the length cored), generally varied between 93 and 100 percent. The exceptions are the initial core runs in CSGZ-1 and CSGZ-3 which are 28 and 8 percent, respectively.

The RQD values are generally between 25 and 91 percent with several values below 10 percent. Based on core times, recoveries, RQD, and observations of



bedrock core, the upper 5 to 10 feet of bedrock is in general more weathered and fractured.

- **Groundwater** was observed in Test Pits CSTP-25, CSTP-27, CSTP-36, and CSTP-47 and measured in monitoring wells installed in Borings CSGZ-1 and CSGZ-4. Groundwater in the test pits was observed from 4 to 8 feet below the existing ground surface. The test pits that encountered groundwater are located on the northwest part of the site at the Turbine 3 location and to the east along the proposed access road. Monitoring wells installed at Turbine 2 and Turbine 3 were read approximately one month after installation. Groundwater was measured at 17 feet below ground surface at Turbine 2 (CSGZ-1) and 7.2 feet below ground surface at Turbine 3 (CSGZ-4).

The groundwater levels at the two bedrock controlled turbine locations (Nos. 1 and 2) are likely similar. Some perched groundwater may be encountered in the glacial till or subsoil above the bedrock, especially in the spring due to the infiltration of snowmelt. At Turbine 3, groundwater was encountered at a relatively shallow depth in the thicker deposits of glacial till. The groundwater level in this area is likely controlled by watercourses and wetlands in the vicinity.

It is anticipated that groundwater levels will vary due to variations in rainfall and other factors different than those prevailing at the time the explorations were performed and the measurements were made. It should be noted that the seasonally lowest groundwater levels typically occur during the late summer and fall months.

5.00 TURBINE FOUNDATION DESIGN DISCUSSION

GZA has prepared the turbine foundation design based on the results of the subsurface explorations completed to date. Laboratory test results and geophysical testing will be provided when they become available and turbine foundation design will be refined and finalized. The current turbine foundation design shown on Drawings B-101, B-102 and B-103 is the largest foundation diameter we currently anticipate.

Our general conclusions are as follows:

- The subsurface conditions encountered at the site are suitable for support of gravity spread footing foundations. Foundations for Turbines 1 and 2 will be supported directly on bedrock and the foundation for Turbine 3 will be supported on glacial till and will be constructed with reinforced concrete
- Recommended foundations are planned to be octagonally shaped with a dimension of 58 feet between opposing sides. The bottom of foundation is planned to be 9 feet below finished grade.
- Controlled blasting techniques should be used for bedrock removal for cuts in bedrock for foundations, access roads, crane pads and laydown areas.



- The glacial till soils at the site contain elevated percentages of silt. These soils can be disturbed by construction traffic when wet and can be very difficult to use as backfill in the winter or wet weather months. Excavated surfaces will need subgrade protection that may consist of a concrete mud mat or compacted gravel over a layer of filter fabric.
- The glacial till and bedrock typically have a relatively low permeability and it is not anticipated that significant amounts of groundwater will be encountered during excavations for the foundations. If water is encountered (groundwater or precipitation within excavations), it should be removed from the excavation by pumping from sumps.

TABLES

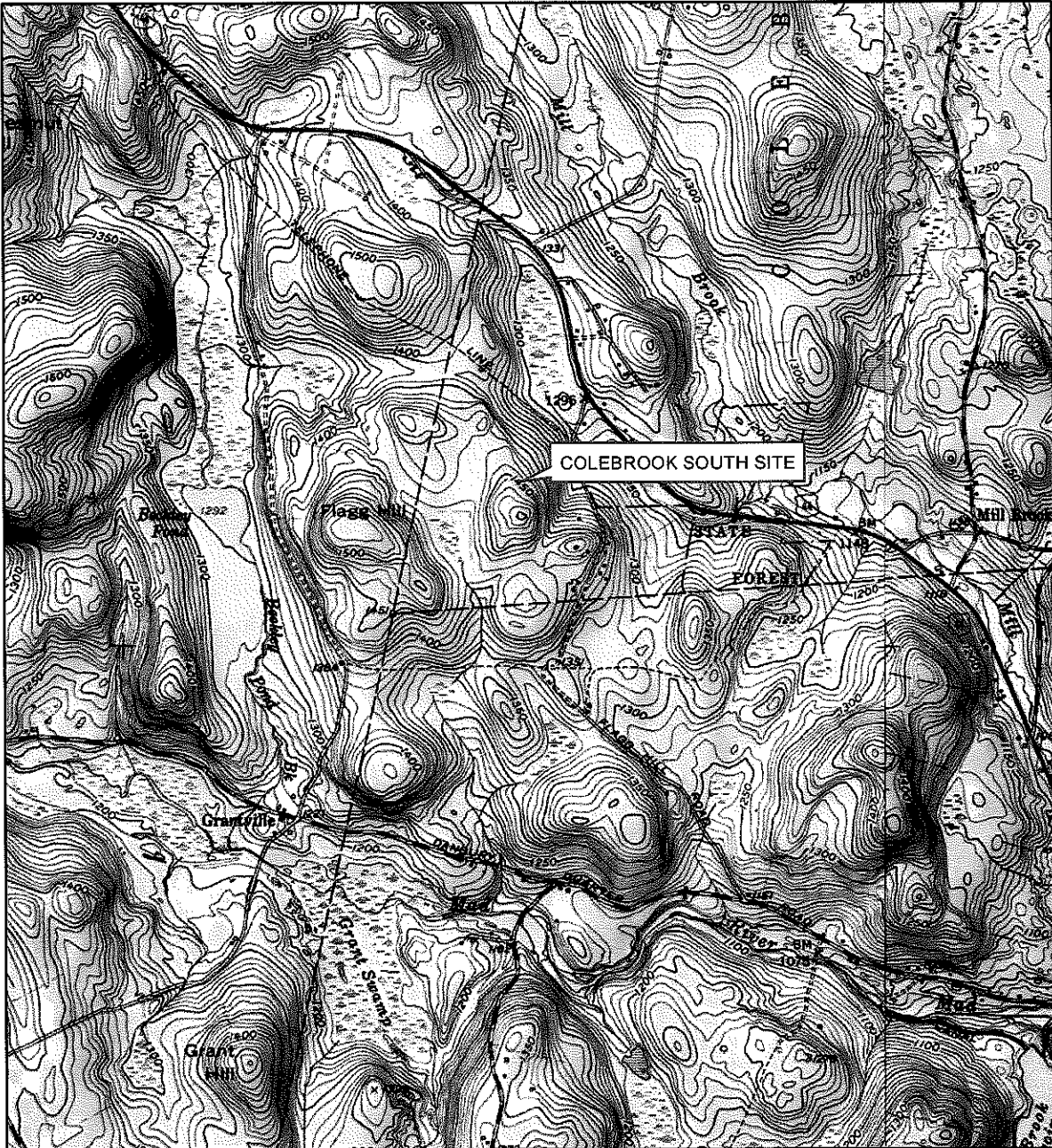
TABLE 1
SUMMARY OF EXPLORATION DATA
BNE WIND FARM - COLEROCK SOUTH
COLEROCK, CONNECTICUT


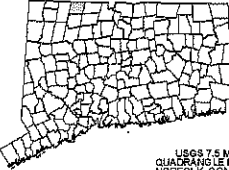

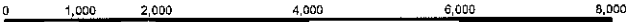
Depth (ft.) Description	Test Borings										Test Pits									
	CS6Z-1	CS6Z-2	CS6Z-3	CS6Z-4	CS6Z-5	CS6Z-6	CS6Z-7	CS6Z-8	CS6Z-9	CS6Z-10	CS6Z-11	CS6Z-12	CS6Z-13	CS6Z-14	CS6Z-15	CS6Z-16	CS6Z-17	CS6Z-18	CS6Z-19	CS6Z-20
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0	1450.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0	1447.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5	1416.5
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0	1433.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Depth (ft.) Description	Test Borings										Test Pits																
	CS6Z-21	CS6Z-22	CS6Z-23	CS6Z-24	CS6Z-25	CS6Z-26	CS6Z-27	CS6Z-28	CS6Z-29	CS6Z-30	CS6Z-31	CS6Z-32	CS6Z-33	CS6Z-34	CS6Z-35	CS6Z-36	CS6Z-37	CS6Z-38	CS6Z-39	CS6Z-40	CS6Z-41	CS6Z-42	CS6Z-43	CS6Z-44	CS6Z-45	CS6Z-46	CS6Z-47
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0	1444.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0	1442.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0	1338.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0	1330.0
NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Notes:
 1. NE = Not Encountered, ND = Not Determined/Measured
 2. Groundwater readings were taken during conditions stated on the boring and test pit logs.
 3. Ground surface elevations were interpolated by GZA from a plan provided by the Client.
 4. A groundwater observation well was installed in boring CS6Z-4.
 All other groundwater measurements were made under the conditions stated on the exploration logs.

FIGURES



 <p>GZA GeoEnvironmental, Inc. Engineers and Scientists 655 Winding Brook Drive Suite 402 Glastonbury, Connecticut 06033 (860) 266-8900</p>  <p>USGS 7.5 MINUTE QUADRANGLE BASE MAP: NORFOLK, CONNECTICUT 1997</p>	SITE LOCUS								
	WIND COLEBROOK SOUTH COLEBROOK, CONNECTICUT								
	<table border="1"> <tr> <td>PROJ MGR: DTK</td> <td>REVIEWED BY: DTK</td> <td>PROJECT NO. 05.0044818.02</td> </tr> <tr> <td>DESIGNED BY: JER</td> <td>DRAWN BY: MJS</td> <td>DATE: 08-15-11</td> </tr> </table>	PROJ MGR: DTK		REVIEWED BY: DTK	PROJECT NO. 05.0044818.02	DESIGNED BY: JER	DRAWN BY: MJS	DATE: 08-15-11	
	PROJ MGR: DTK	REVIEWED BY: DTK		PROJECT NO. 05.0044818.02					
DESIGNED BY: JER	DRAWN BY: MJS	DATE: 08-15-11							
<p>THIS MAP HAS BEEN COMPILED FROM OTHER MAPS AND/OR SOURCES OF INFORMATION. THIS MAP SHOULD NOT BE CONSTRUED AS A PROPERTY SURVEY, NOR USED FOR CONSTRUCTION PURPOSES.</p>  <p style="text-align: center;">Scale In Feet</p>		FIGURE 1							

**APPENDIX A
LIMITATIONS**

LIMITATIONS

Explorations

1. The analyses and recommendations submitted in this report are based in part upon the data obtained from subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more erratic. For specific information, refer to the exploration logs.
3. Water level readings have been made in the explorations at times and under conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors occurring since the time measurements were made.

Review

4. In the event that any changes in the nature, design or location of the proposed building are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by GZA. It is recommended that this firm be provided the opportunity for a general review of final design and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design and specifications.

Construction

5. It is recommended that this firm be retained to provide soil engineering services during construction of the excavation and foundation phases of the work. This is to observe compliance with the design concepts, specifications, and recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to start of construction.

Use of Report

6. This report has been prepared for the exclusive use of Civill and their design consultants for specific application to the proposed BNE Wind Farm Development at Colebrook South, in Colebrook, Connecticut in accordance with generally accepted soil and foundation engineering practices. No warranty, express or implied, is made.

7. This soil and foundation engineering report has been prepared for this project by GZA. This report is for design purposes only and is not sufficient to prepare an accurate bid. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to design considerations only.

8. This report may contain comparative cost estimates for the purpose of evaluating alternative foundation schemes. These estimates may also involve approximate quantity evaluations. It should be noted that quantity estimates may not be accurate enough for construction bids. Since GZA has no control over labor and materials cost and design, the estimates of construction costs have been made on the basis of experience. GZA does not guarantee the accuracy of cost estimates as compared to contractor's bids for construction costs.

**APPENDIX B
BORING LOGS**

APPENDIX B
EXPLORATION LOGS

EXPLANATION OF SAMPLE DESCRIPTIONS

SOIL DESCRIPTION

Soil sample descriptions are based on a modification of the Burmister identification system. The following explains the key soil classification terminology.

Component Gradation Terms:

Material	Fraction	Sieve Size
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40
Fines		Passing No. 200

Relative Density or Consistency Terms:

Non-Plastic Soils		Plastic Soils	
Blows/Ft	Density	Blows/Ft	Plastic Soils
0 to 4	Very Loose	< 2	Very Soft
4 to 10	Loose	2 to 4	Soft
10 to 30	Medium Dense	4 to 8	Medium Stiff
30 to 50	Dense	8 to 15	Stiff
> 50	Very Dense	15 to 30	Very Stiff
		> 30	Hard

Fines Fraction:

Plasticity	PI	Name	Smallest Thread Diameter Rolled
Non-Plastic	0	SILT	None
Slight	1 to 5	Clayey SILT	1/4"
Low	5 to 10	SILT & CLAY	1/8"
Medium	10 to 20	CLAY & SILT	1/16"
High	20 to 40	Silty CLAY	1/32"
Very High	> 40	CLAY	1/64"

Proportional Terms:

Proportional Term	Percent by Weight
And	35 to 50
Some	20 to 35
Little	10 to 20
Trace	1 to 10

ROCK DESCRIPTION

Rock descriptions consist of the below factors plus color, rock type, and other pertinent characteristics. EXAMPLE: Moderately hard, slightly weathered, slightly fractured, fine grained, red-brown SILTSTONE, medium shallow dipping bedding, occasional high angle joints with clay and calcite fillings.

HARDNESS

Very hard	Cannot be scratched with knife or sharp pick; requires several hard blows of hammer to break.
Hard	Can be scratched with knife or sharp pick with difficulty; requires hard blow of hammer to break.
Moderately Hard	Can be scratched with knife or pick; breaks with moderate blow of hammer.
Soft	Can be gouged or scraped by knife or sharp pick; small thin pieces can be broken with fingers.
Very Soft	Can be easily scraped or peeled with knife; crumbles under hammer blow; pieces 1 inch or more in thickness can be broken with fingers.

WEATHERING

Fresh	No visible signs of decomposition or discoloration; rings under hammer impact if crystalline.
Slightly Weathered	Slight discoloration from open fractures extending inwards up to 1 inch; otherwise similar to fresh.
Moderately Weathered	Discoloration throughout; weaker minerals such as feldspar decomposed; strength somewhat less than fresh rock but cores cannot be broken by hand or scraped by knife; texture preserved; has dull sound under hammer.
Highly Weathered	Most minerals somewhat decomposed; specimens can be broken by hand with effort or shaved with knife; core stones present in rock mass; texture becoming indistinct but fabric preserved.
Completely Weathered	Minerals decomposed to soil but fabric and structure preserved (Saprolite); specimens easily crumbled or penetrated.

ROCK CONTINUITY

Any break in rock core, even if fresh.

Extremely Fractured	Drill core stem less than 1 inch
Moderately Fractured	Drill core stem 1 inch to 4 inches
Slightly Fractured	Drill core stem 4 inches to 8 inches
Sound	Drill core stem greater than 8 inches

TEXTURE

Amorphous	Too small to be seen with naked eye
Fine Grained	Barely seen with naked eye
Medium Grained	Barely seen with naked eye to 1/8-inch
Coarse Grained	1/8-inch to 1/4-inch

DISCONTINUITY SPACING

Description for Structural Features (Bedding, Foliation, or Flow Banding)	Spacing	Description for Joints, Faults, or Other Fractures
Very thickly (bedded, foliated, or banded)	More than 6 feet	Very widely (fractured or jointed)
Thickly	2 to 6 feet	Widely
Medium	8 to 24 inches	Medium
Thinly	2-1/2 to 8 inches	Closely
Very thinly	3/4- to 2-1/2 inches	Very closely

ATTITUDE

Attitude	Angle
Horizontal	0° to 5°
Shallow or low angle	5° to 35°
Moderately dipping	35° to 55°
Steep or high angle	55° to 85°
Vertical	85° to 90°

ROCK QUALITY DESIGNATION (RQD)

$$\text{RQD in \%} = \frac{\text{Length of Core in Pieces 4 inches and longer} \times 100}{\text{Length of Run}}$$

TEST BORING LOG



**BNE WIND FARM SOUTH
COLEBROOK, CONNECTICUT**

**EXPLORATION NO.: CSGZ-1
SHEET: 1 of 2
PROJECT NO: 44818.02
REVIEWED BY: JER**

Logged By: T. Bjartmarz
Drilling Co.: New Hampshire Borings
Foreman: Richard Lenard

Type of Rig: ATV
Rig Model: Wildcat
Drilling Method: Casing/Rotary Wash

Boring Location: Turbine 2 South, See Plan
Ground Surface Elev. (ft.): 1450
Final Boring Depth (ft.): 33.5
Date Start - Finish: 7/25/2011 - 7/25/2011

H. Datum: Project
V. Datum: Project

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4" O.D.

Sampler Type: Split Spoon
Sampler O.D. (in.): 2
Sampler Length (in.): 24
Rock Core Size: NX

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
7/25/11	1438	See Note 2	0 min.
8/23/11	1000	17' See Note 3	28 days

Depth (ft)	Casing Blows/ Core Rate	Sample					SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum Description Elev. (ft.)		No Equipment Installed
		No.	Depth (ft.)	Pen. (in)	Rec. (in)	Blows per 6"					Depth (ft.)	Elev. (ft.)	
5	Pushed	S-1	0-2	24	4	Note 1	Brown, fine to coarse SAND and ORGANIC MATTER, little fine Gravel, little Silt	1		1	TOPSOIL	1449.0	
	2	C-1	3.5-8.5	60	16	Hard, moderately weathered, slightly fractured, fine to medium grained, high angle, black and white, GNEISS RQD = 25%, Recovery = 27%				2	SUBSOIL		1447.0
10	1	C-2	8.5-13.5	60	60		Very hard, fresh to slightly weathered, slightly fractured, fine to medium grained, high angle, black and white, GNEISS RQD = 61%, Recovery = 100%	3		BEDROCK			
	0												
	0												
	2												
15	2	C-3	13.5-18.5	60	59	Hard, fresh to slightly weathered, slightly fractured, fine to medium grained, high angle, black and white, GNEISS RQD = 69%, Recovery = 98%	1		BEDROCK				
	1												
	1												
	1												
20	1	C-4	18.5-23.5	60	59.5	Hard, fresh to slightly weathered, slightly fractured, fine to medium grained, high angle, black and white, GNEISS RQD = 79%, Recovery 99%	1		BEDROCK				
	1												
	1												
	1												
25	1	C-5	23.5-28.5	60	59.5	Hard, fresh to slightly weathered, sound, fine to medium grained, high angle, black and white, GNEISS RQD = 28%, Recovery 99%	1		BEDROCK				
	1												
	1												
	1												
30	1	C-6	28.5-33.5	60	57	Hard, fresh to slightly weathered, sound, fine to	1		BEDROCK				
	1												

REMARKS

- 1 - Split spoon sampler pushed into soil during sampling S-1.
- 2 - Groundwater not encountered during drilling prior to introduction of drilling fluid at 2 feet below grade.
- 3 - On August 23, 2011, borehole measured to be open to about 19.6 feet below grade. Groundwater level measured in open hole.

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.:
CSGZ-1

TEST BORING LOG



GZA
GeoEnvironmental, Inc.
Engineers and Scientists

**BNE WIND FARM SOUTH
COLEBROOK, CONNECTICUT**

EXPLORATION NO.: CSGZ-1
SHEET: 2 of 2
PROJECT NO: 44818.02
REVIEWED BY: JER

Logged By: T. Bjartmarz
Drilling Co.: New Hampshire Borings
Foreman: Richard Lenard

Type of Rig: ATV
Rig Model: Wildcat
Drilling Method: Casing/Rotary Wash

Boring Location: Turbine 2 South, See Plan
Ground Surface Elev. (ft.): 1450
Final Boring Depth (ft.): 33.5
Date Start - Finish: 7/25/2011 - 7/25/2011

H. Datum:
Project
V. Datum:
Project

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4" O.D.

Sampler Type: Split Spoon
Sampler O.D. (in.): 2
Sampler Length (in.): 24
Rock Core Size: NX

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
7/25/11	1438	See Note 2	0 min.
8/23/11	1000	17' See Note 3	28 days

Depth (ft)	Casing Blows/ Core Rate	Sample					SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum	
		No.	Depth (ft.)	Pen. (in)	Rec. (in)	Blows per 6"					Depth (ft.)	Description Elev. (ft.)
1							medium grained, high angled, black and white, GNEISS RQD = 61%, Recovery = 100%					
1												
1												
35							End of exploration at 33.5 feet.					
40												
45												
50												
55												
60												

REMARKS

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.:
CSGZ-1

TEST BORING LOG



**BNE WIND FARM SOUTH
COLEBROOK, CONNECTICUT**

EXPLORATION NO.: CSGZ-2
SHEET: 1 of 2
PROJECT NO: 44818.02
REVIEWED BY: JER

Logged By: T. Bjartmarz
Drilling Co.: New Hampshire Borings
Foreman: Richard Lenard

Type of Rig: ATV
Rig Model: Wildcat
Drilling Method: Casing/Rotary Wash

Boring Location: Turbine 1 South, See Plan
Ground Surface Elev. (ft.): 1452
Final Boring Depth (ft.): 31.5
Date Start - Finish: 7/26/2011 - 7/26/2011

H. Datum: Project
V. Datum: Project

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4" O.D.

Sampler Type: Split Spoon
Sampler O.D. (in.): 2
Sampler Length (in.): 24
Rock Core Size: NX

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
7/26/11	1530	See Note	0 min.

Depth (ft)	Casing Blows/ Core Rate	Sample				Blows per 6"	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum		No Equipment Installed
		No.	Depth (ft.)	Pen. (in)	Rec. (in)						Depth (ft.)	Description Elev. (ft.)	
		S-1	0-0.9	11	6	Note 1		Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, trace Roots	1		1 TOPSOIL _{1451.0}		
									2		2 SUBSOIL _{1450.0}		
2		C-1	2.5-6.5	48	45			Hard, moderately weathered, extremely fractured, fine to medium grained, high angle, white and black, GNEISS RQD = 10%, Recovery = 94%					
5													
6		C-2	6.5-11.5	60	58			Hard, moderately weathered, moderately fractured, fine to medium grained, high angle, white and black, GNEISS RQD = 43%, Recovery = 97%					
10													
11		C-3	11.5-16.5	60	59			Hard, slightly weathered, slightly fractured, fine to medium grained, high angle, white and black, GNEISS RQD = 91%, Recovery = 98%					
15													
16		C-4	16.5-21.5	60	56			Hard, slightly weathered, slightly fractured, fine to medium grained, high angle, white and black, GNEISS RQD = 90%, Recovery = 93%					
20													
21		C-5	21.5-26.5	60	59.5			Hard, slightly weathered, extremely fractured, fine to medium grained, high angle, white and black, GNEISS RQD = 28%, Recovery = 99%					
25													
26		C-6	26.5-31.5	60	60			Hard, slightly weathered, moderately fractured, fine to medium grained, high angle, white and black, GNEISS					
30													

BEDROCK

REMARKS
1 - Split spoon sampler pushed into soil during sampling S-1.
2 - Groundwater not encountered prior to introduction of drilling fluid at 2 feet below grade.

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.:
CSGZ-2

GZA TEMPLATE TEST BORING W/ EQUIP.: 8/26/2011; 12:01:08 PM

TEST BORING LOG



GZA
GeoEnvironmental, Inc.
Engineers and Scientists

**BNE WIND FARM SOUTH
COLEBROOK, CONNECTICUT**

EXPLORATION NO.: CSGZ-2
SHEET: 2 of 2
PROJECT NO: 44818.02
REVIEWED BY: JER

Logged By: T. Bjartmarz
Drilling Co.: New Hampshire Borings
Foreman: Richard Lenard

Type of Rig: ATV
Rig Model: Wildcat
Drilling Method: Casing/Rotary Wash

Boring Location: Turbine 1 South, See Plan
Ground Surface Elev. (ft.): 1452
Final Boring Depth (ft.): 31.5
Date Start - Finish: 7/26/2011 - 7/26/2011

H. Datum: Project
V. Datum: Project

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4" O.D.

Sampler Type: Split Spoon
Sampler O.D. (in.): 2
Sampler Length (in.): 24
Rock Core Size: NX

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
7/26/11	1530	See Note	0 min.

Depth (ft)	Casing Blows/ Core Rate	Sample					SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum Depth (ft)	Stratum Description Elev. (ft.)
		No.	Depth (ft.)	Pen. (in)	Rec. (in)	Blows per 6"						
	3						RQD = 61%, Recovery = 100%			31.5	BEDROCK	1420.5
							End of exploration at 31.5 feet.					
35												
40												
45												
50												
55												
60												

REMARKS

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.:
CSGZ-2

TEST BORING LOG



GZA
GeoEnvironmental, Inc.
Engineers and Scientists

**BNE WIND FARM SOUTH
COLEBROOK, CONNECTICUT**

EXPLORATION NO.: CSGZ-3
SHEET: 1 of 2
PROJECT NO: 44818.02
REVIEWED BY: JER

Logged By: T. Bjartmarz
Drilling Co.: New Hampshire Borings
Foreman: Richard Lenard

Type of Rig: ATV
Rig Model: Wildcat
Drilling Method: Casing/Rotary Wash

Boring Location: Turbine 3 South, See Plan
Ground Surface Elev. (ft.): 1449
Final Boring Depth (ft.): 44.5
Date Start - Finish: 7/26/2011 - 7/26/2011

H. Datum:
Project
V. Datum:
Project

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4" O.D.

Sampler Type: Split Spoon
Sampler O.D. (in.): 2
Sampler Length (in.): 24
Rock Core Size: NX

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
		See Note	

Depth (ft)	Casing Blows/ Core Rate	Sample					Blows per 6"	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum		No Equipment Installed
		No.	Depth (ft.)	Pen. (in)	Rec. (in)							Depth (ft.)	Description Elev. (ft.)	
5		S-1	0-2	24	9	4 5 15 10	20	Medium dense, brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, trace Organic Matter	1		1	TOPSOIL	1448.0	
											3	SUBSOIL	1446.0	
10		S-2	5-7	24	20	4 12 14 15	26	Medium dense, gray, fine to coarse SAND, some Silt, little fine Gravel (moist)						
15		S-3	10-12	24	23	2 10 12 17	22	Medium dense, gray, fine to coarse SAND, some Silt, little fine to coarse Gravel (moist)						
20		S-4	15-17	24	15	3 11 16 37	27	Medium dense, gray, fine to coarse SAND, some Silt, little fine to coarse Gravel (moist)	2			GLACIAL TILL		
25		S-5	20-22	24	12	16 38 51 22	89	Very dense, gray, fine to coarse SAND, some Silt, little fine to coarse Gravel (moist)						
30		S-6	25-27	24	16	11 13 24 32	37	Dense, gray, fine to coarse SAND and SILT, little fine Gravel (moist)						

REMARKS
1 - Groundwater not encountered prior to introduction of drilling fluid at 2 feet below grade.
2 - Difficulty drilling may indicate possible rock or cobble from 17 to 17.5 feet below grade.

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.:
CSGZ-3

TEST BORING LOG



GZA
GeoEnvironmental, Inc.
Engineers and Scientists

**BNE WIND FARM SOUTH
COLEBROOK, CONNECTICUT**

EXPLORATION NO.: CSGZ-3
SHEET: 2 of 2
PROJECT NO: 44818.02
REVIEWED BY: JER

Logged By: T. Bjartmarz
Drilling Co.: New Hampshire Borings
Foreman: Richard Lenard

Type of Rig: ATV
Rig Model: Wildcat
Drilling Method: Casing/Rotary Wash

Boring Location: Turbine 3 South, See Plan
Ground Surface Elev. (ft.): 1449
Final Boring Depth (ft.): 44.5
Date Start - Finish: 7/26/2011 - 7/26/2011

H. Datum: Project
V. Datum: Project

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4" O.D.

Sampler Type: Split Spoon
Sampler O.D. (in.): 2
Sampler Length (in.): 24
Rock Core Size: NX

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
		See Note	

Depth (ft)	Casing Blows/ Core Rate	Sample				Blows per 6"	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum	
		No.	Depth (ft.)	Pen. (in)	Rec. (in)						Depth (ft)	Description Elev. (ft.)
		S-7	30-32	24		25 23 21 31	44	Dense, gray, fine to coarse SAND and SILT, little fine Gravel			GLACIAL TILL	
35	2	C-1	34.5-39.5	60	5			Hard, slightly weathered, moderately to extremely fractured, fine grained, white QUARTZ and GNEISS RQD = 7%, Recovery = 8%			BEDROCK	
40	2	C-2	39.5-44.5	60	43			Hard, slightly weathered, slightly fractured, fine to medium grained, high angle, black and white, GNEISS RQD = 56%, Recovery = 77%				
45								End of exploration at 44.5 feet.		44.5	1404.5	
50												
55												
60												

REMARKS

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.:
CSGZ-3

GZA TEMPLATE TEST BORING W/ EQUIP. - 8/26/2011; 12:01:09 PM

TEST BORING LOG



GZA
GeoEnvironmental, Inc.
Engineers and Scientists

**BNE WIND FARM SOUTH
COLEBROOK, CONNECTICUT**

EXPLORATION NO.: CSGZ-4
SHEET: 1 of 1
PROJECT NO: 44818.02
REVIEWED BY: JER

Logged By: T. Bjartmarz
Drilling Co.: New Hampshire Borings
Foreman: Richard Lenard

Type of Rig: ATV
Rig Model: Wildcat
Drilling Method: Casing/Rotary Wash

Boring Location: 30' South of Turbine 3
Ground Surface Elev. (ft.): 1448
Final Boring Depth (ft.): 21
Date Start - Finish: 7/27/2011 - 7/27/2011

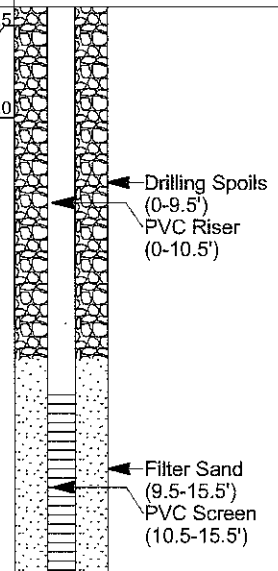
H. Datum:
Project
V. Datum:
Project

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4" O.D.

Sampler Type: Split Spoon
Sampler O.D. (in.): 2
Sampler Length (in.): 24
Rock Core Size: NX

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time
8/23/11	1000	See Note 7.2'	26 days

Depth (ft)	Casing Blows/ Core Rate	Sample				Blows per 6"	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum	
		No.	Depth (ft.)	Pen. (in)	Rec. (in)						Depth (ft)	Description Elev. (ft.)
0-5		S-1	0-2	24	16	1 1 1 6	2	Top 6": Loose, dark brown, fine SAND and ORGANIC MATTER, some Silt Bottom 10": Loose, brown, fine to coarse SAND, little Silt, trace fine Gravel, trace Roots	1		0.5	TOPSOIL 1447.5
								3			SUBSOIL 1445.0	
5-10		S-2	10-12	24	21	8 13 17 13	30	Dense, gray, fine to coarse SAND and SILT, little fine to coarse Gravel	2			GLACIAL TILL
10-20		S-3	19-21	24	12	8 28 35 27	63	Very dense, gray, fine to coarse SAND and fine to coarse GRAVEL, little Silt				
20-21								End of exploration at 21 feet.				



REMARKS
1 - Groundwater not encountered during drilling prior to introduction of drilling fluid at 2 feet below grade.
2 - 5 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximately 15.5 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 9.5 to 15.5 feet below grade. Remaining annulus filled with drilling spoils from 0 to 9.5 feet below grade.

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.:
CSGZ-4

GZA TEMPLATE TEST BORING W/ EQUIP.: 8/26/2011; 12:01:10 PM

APPENDIX C
TEST PIT LOGS

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-1</u> File No. <u>44818.02</u> Date <u>7/22/2011</u>
GZA Engineer <u>Brian Baker (Civil)</u> Weather _____	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1295±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.8' Topsoil	M		
--- 2' ---	2.5' Brown, fine SAND, some Silt (Subsoil)	M	2A	
--- 3' ---			2A	
--- 4' ---	6' Gray, fine SAND, some Silt (Glacial Till)	D		
--- 5' ---		D		
--- 6' ---		D		1, 2
--- 7' ---		Excavator Refusal at 6'		
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at about 6 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND																																
<p style="text-align: center;">North</p> <p>Depth = <u>6</u> ft. Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																													
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Size Range</td> <td style="width: 50%;">Letter</td> </tr> <tr> <td>Classification</td> <td>Designation</td> </tr> <tr> <td>6" - 18"</td> <td style="text-align: center;">A</td> </tr> <tr> <td>18" - 36"</td> <td style="text-align: center;">B</td> </tr> <tr> <td>36" and Larger</td> <td style="text-align: center;">C</td> </tr> </table>	Size Range	Letter	Classification	Designation	6" - 18"	A	18" - 36"	B	36" and Larger	C	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">TRACE (TR)</td> <td style="width: 50%;">0-10%</td> </tr> <tr> <td>LITTLE (LI)</td> <td>10-20%</td> </tr> <tr> <td>SOME (SO)</td> <td>20-35%</td> </tr> <tr> <td>AND</td> <td>35-50%</td> </tr> </table>	TRACE (TR)	0-10%	LITTLE (LI)	10-20%	SOME (SO)	20-35%	AND	35-50%	<table style="width: 100%; border-collapse: collapse;"> <tr><td>F - Fine</td></tr> <tr><td>M - Medium</td></tr> <tr><td>C - Coarse</td></tr> <tr><td>F/M - Fine to Medium</td></tr> <tr><td>F/C - Fine to Coarse</td></tr> <tr><td>V - Very</td></tr> <tr><td>GR - Gray</td></tr> <tr><td>BN - Brown</td></tr> <tr><td>YEL - Yellow</td></tr> </table>	F - Fine	M - Medium	C - Coarse	F/M - Fine to Medium	F/C - Fine to Coarse	V - Very	GR - Gray	BN - Brown	YEL - Yellow	<table style="width: 100%; border-collapse: collapse;"> <tr><td>E - Easy</td></tr> <tr><td>M - Moderate</td></tr> <tr><td>D - Difficult</td></tr> </table> <p style="text-align: center;">GROUNDWATER</p> <p>Elapsed Time to Reading (hours) G.W.L.</p>	E - Easy	M - Moderate
Size Range	Letter																																
Classification	Designation																																
6" - 18"	A																																
18" - 36"	B																																
36" and Larger	C																																
TRACE (TR)	0-10%																																
LITTLE (LI)	10-20%																																
SOME (SO)	20-35%																																
AND	35-50%																																
F - Fine																																	
M - Medium																																	
C - Coarse																																	
F/M - Fine to Medium																																	
F/C - Fine to Coarse																																	
V - Very																																	
GR - Gray																																	
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YEL - Yellow																																	
E - Easy																																	
M - Moderate																																	
D - Difficult																																	

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-1A</u> File No. <u>44818.02</u> Date <u>7/22/2011</u>
GZA Engineer <u>Brian Baker (Civil)</u> Weather _____	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1306±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1' Topsoil	M		
--- 2' ---	Brown, fine SAND, some Silt (Subsoil)	M	3A	
--- 3' ---		M	3A	
--- 4' ---		D		
--- 5' ---	4' Gray, fine SAND, some Silt (Glacial Till)	D		
--- 6' ---	5.5' Excavator Refusal at 5.5'			1, 2
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at about 5.5 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
Depth = <u>6</u> ft. Volume = <u>2</u> cu.yd.	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours) G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-2</u>	File No. <u>44818.02</u>
		Date <u>7/22/2011</u>	
GZA Engineer <u>Brian Baker (Civil)</u>	<u>EXCAVATION EQUIPMENT</u>		Ground Elevation <u>1320'±</u>
Weather _____	Contractor <u>HTS Construction</u>	Time Started _____	
	Operator <u>Bruce Remillard</u>	Time Completed _____	
	Make <u>Volvo</u> Model <u>EC35</u>		
	Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.		

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.8' Topsoil	M		
--- 2' ---	Brown, fine SAND, some Silt (Subsoil)	M		
--- 3' ---	3' Excavator Refusal at 3'	M		1, 2
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:
 1. Excavator refusal on bedrock at 3 feet below grade.
 2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND																																	
<p style="text-align: center;">North</p> <p>Depth = <u>3</u> ft.</p> <p>Volume = <u>1</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																														
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Size Range</td> <td style="width: 25%;">Letter</td> <td style="width: 25%;">TRACE (TR)</td> <td style="width: 25%;">0-10%</td> </tr> <tr> <td>Classification</td> <td>Designation</td> <td>LITTLE (L)</td> <td>10-20%</td> </tr> <tr> <td>6" - 18"</td> <td>A</td> <td>SOME (SO)</td> <td>20-35%</td> </tr> <tr> <td>18" - 36"</td> <td>B</td> <td>AND</td> <td>35-50%</td> </tr> <tr> <td>36" and Larger</td> <td>C</td> <td></td> <td></td> </tr> </table>	Size Range	Letter	TRACE (TR)	0-10%	Classification	Designation	LITTLE (L)	10-20%	6" - 18"	A	SOME (SO)	20-35%	18" - 36"	B	AND	35-50%	36" and Larger	C			<table style="width: 100%; border-collapse: collapse;"> <tr><td>F - Fine</td></tr> <tr><td>M - Medium</td></tr> <tr><td>C - Coarse</td></tr> <tr><td>F/M - Fine to Medium</td></tr> <tr><td>F/C - Fine to Coarse</td></tr> <tr><td>V - Very</td></tr> <tr><td>GR - Gray</td></tr> <tr><td>BN - Brown</td></tr> <tr><td>YEL - Yellow</td></tr> </table>	F - Fine	M - Medium	C - Coarse	F/M - Fine to Medium	F/C - Fine to Coarse	V - Very	GR - Gray	BN - Brown	YEL - Yellow	<table style="width: 100%; border-collapse: collapse;"> <tr><td>E - Easy</td></tr> <tr><td>M - Moderate</td></tr> <tr><td>D - Difficult</td></tr> </table>	E - Easy	M - Moderate
Size Range	Letter	TRACE (TR)	0-10%																															
Classification	Designation	LITTLE (L)	10-20%																															
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M - Moderate																																		
D - Difficult																																		
	GROUNDWATER																																	
	Elapsed Time to Reading (hours)		G.W.L.																															

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-3</u> File No. <u>44818.02</u> Date <u>7/22/2011</u>
GZA Engineer <u>Brian Baker (Civil)</u> Weather _____	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1337±</u> Time Started _____ Time Completed _____

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
1'	1'	Topsoil	M		
2'		Brown, fine SAND, little Silt (Subsoil)	M	2B	
3'	3'		M	1B, 3A	
4'		Gray, fine SAND, little Silt (Glacial Till)	D	3A	
5'	4.5'	Excavator Refusal at 4.5'	D	3A	1, 2
6'					
7'					
8'					
9'					
10'					
11'					
12'					
13'					
14'					

REMARKS:

1. Excavator refusal on bedrock at 4.5 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND																																			
<p style="text-align: center;">North</p> <p>Depth = <u>4.5</u> ft. Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																																
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Size Range</td> <td style="width: 50%;">Letter</td> </tr> <tr> <td>Classification</td> <td>Designation</td> </tr> <tr> <td>6" - 18"</td> <td>A</td> </tr> <tr> <td>18" - 36"</td> <td>B</td> </tr> <tr> <td>36" and Larger</td> <td>C</td> </tr> </table>	Size Range	Letter	Classification	Designation	6" - 18"	A	18" - 36"	B	36" and Larger	C	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">TRACE (TR)</td> <td style="width: 50%;">0-10%</td> </tr> <tr> <td>LITTLE (LI)</td> <td>10-20%</td> </tr> <tr> <td>SOME (SO)</td> <td>20-35%</td> </tr> <tr> <td>AND</td> <td>35-50%</td> </tr> </table>	TRACE (TR)	0-10%	LITTLE (LI)	10-20%	SOME (SO)	20-35%	AND	35-50%	<table style="width: 100%; border-collapse: collapse;"> <tr><td>F - Fine</td></tr> <tr><td>M - Medium</td></tr> <tr><td>C - Coarse</td></tr> <tr><td>F/M - Fine to Medium</td></tr> <tr><td>F/C - Fine to Coarse</td></tr> <tr><td>V - Very</td></tr> <tr><td>GR - Gray</td></tr> <tr><td>BN - Brown</td></tr> <tr><td>YEL - Yellow</td></tr> </table>	F - Fine	M - Medium	C - Coarse	F/M - Fine to Medium	F/C - Fine to Coarse	V - Very	GR - Gray	BN - Brown	YEL - Yellow	<table style="width: 100%; border-collapse: collapse;"> <tr><td>E - Easy</td></tr> <tr><td>M - Moderate</td></tr> <tr><td>D - Difficult</td></tr> </table> <p style="text-align: center;">GROUNDWATER</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Elapsed Time to Reading (hours)</td> <td style="width: 10%; text-align: center;"> </td> <td style="width: 40%; text-align: center;">G.W.L.</td> </tr> </table>	E - Easy	M - Moderate	D - Difficult	Elapsed Time to Reading (hours)	
Size Range	Letter																																			
Classification	Designation																																			
6" - 18"	A																																			
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TRACE (TR)	0-10%																																			
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Elapsed Time to Reading (hours)		G.W.L.																																		

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-4</u> File No. <u>44818.02</u> Date <u>7/22/2011</u>
GZA Engineer <u>Brian Baker (Civil)</u> Weather _____	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1361±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Topsoil	M		
--- 2' ---	Brown, fine SAND, some Silt (Subsoil)	M	2A	
--- 3' ---	3' Excavator Refusal at 3'	M		1, 2
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 3 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> Depth = <u>3</u> ft. Volume = <u>1</u> cu.yd.	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C		GROUNDWATER Elapsed Time to Reading (hours)	G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-5</u> File No. <u>44818.02</u> Date <u>7/22/2011</u>
GZA Engineer <u>Brian Baker (Civil)</u> Weather _____	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1332±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1' Topsoil	M		
--- 2' ---	4.5' Brown, fine SAND, little Silt (Subsoil)	M		
--- 3' ---		M	8A	
--- 4' ---		D	2A	1, 2
--- 5' ---		End of Exploration at 4.5'		
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:
1. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>4.5</u> ft. Volume = <u>1.5</u> cu.yd.</p>	BOULDER COUNT Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	PROPORTIONS USED TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	ABBREVIATIONS F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	EXCAVATION EFFORT E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours) G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-8</u> File No. <u>44818.02</u> Date <u>7/22/2011</u>
GZA Engineer <u>Brian Baker (Civil)</u> Weather _____	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1428'±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	Topsoil	M	1B, 1A	
--- 2' ---	Brown, fine SAND, little Silt (Subsoil)	M	4A	
--- 3' ---	Excavator Refusal at 3'	M	1C	1, 2
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 3 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER Elapsed Time to Reading (hours) G.W.L.

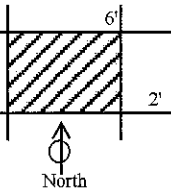

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-9</u>	File No. <u>44818.02</u>
		Date <u>7/22/2011</u>	
GZA Engineer <u>Brian Baker (Civil)</u>	EXCAVATION EQUIPMENT		Ground Elevation <u>1434±</u>
Weather _____	Contractor <u>HTS Construction</u>	Operator <u>Bruce Remillard</u>	Time Started _____
	Make <u>Volvo</u> Model <u>EC35</u>	Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1' Topsoil	M		
--- 2' ---	Dark brown, fine SAND and LOAM, little Silt (Subsoil)	M	12A	
--- 3' ---		M	12A	
--- 4' ---	4.5' Tan, fine SAND, some Silt (Glacial Till)	D	4A	1, 2
--- 5' ---		Excavator Refusal at 4.5'		
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 4.5 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
 <p style="text-align: center;">North</p> <p>Depth = <u>4.5</u> ft. Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	PROPORTIONS USED TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	ABBREVIATIONS F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	EXCAVATION EFFORT E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours) <div style="display: inline-block; vertical-align: middle; text-align: center;">  </div> G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-10</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1442±</u> Time Started <u>900</u> Time Completed <u>915</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M	4A, 3B	
--- 2' ---	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	5A, 1B	
--- 3' ---	3' ---	D	4A	
--- 4' ---	3.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, little Silt (Glacial Till)	D	4A	1
--- 5' ---	Excavator Refusal at 3.5'			
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at about 3.5 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>3.5</u> ft. Volume = <u>4</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LJ) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours) G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-10A</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1435±</u> Time Started <u>950</u> Time Completed <u>1001</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M	5A	
--- 2' ---	1.5' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	4A	
--- 3' ---	3' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	4A	1, 2
--- 4' ---	Excavator Refusal at 3'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 3 feet below grade.
- Groundwater not encountered in test pit.

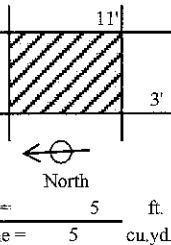

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> Depth = <u>3</u> ft. Volume = <u>2</u> cu.yd.	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER Elapsed Time to Reading (hours) G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-10B</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1444±</u> Time Started <u>950</u> Time Completed <u>1001</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
-- 1' --	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	10A, 1B	
-- 2' --	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	10A, 1B	
-- 3' --	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	3A	1
-- 4' --		D	4A	
-- 5' --		D	3A	2
-- 6' --		Excavator Refusal at 5'		
-- 7' --				
-- 8' --				
-- 9' --				
-- 10' --				
-- 11' --				
-- 12' --				
-- 13' --				
-- 14' --				

REMARKS:
 1. Mottled soil observed at approximately 2.5 feet below grade. Groundwater not encountered.
 2. Excavator refusal on bedrock at 5 feet below grade.

TEST PIT PLAN	LEGEND			
	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)  G.W.L.

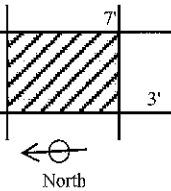

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-10C</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25 cu.yd.</u> Reach <u>15 ft.</u>	Ground Elevation <u>1401±</u> Time Started <u>1011</u> Time Completed <u>1015</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	15A, 10B	
--- 2' ---		D	20A, 4B	
--- 3' ---	Brown, fine to coarse SAND and fine to coarse GRAVEL, some Silt, little Roots (Subsoil)	D	8A, 3B	
--- 4' ---		D	7A, 3B	
--- 5' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	5A	
--- 6' ---		D	3A	1, 2
--- 7' ---	Excavator Refusal at 6'			
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 6 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND				
 <p style="text-align: center;">North</p> <p>Depth = <u>6</u> ft. Volume = <u>4</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT	
	Size Range Classification	Letter Designation	TRACE (TR) 0-10% LITTLE (L) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" 18" - 36" 36" and Larger	A B C			GROUNDWATER
					Elapsed Time to Reading (hours)  G.W.L.

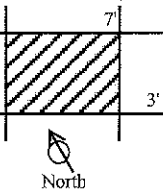

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-10D</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1448±</u> Time Started <u>1035</u> Time Completed <u>1052</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
1'	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M	3A, 1B	
2'	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	3A	
3'	3' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	M		1
4'		M		
5'		D	2A	
6'	6' Excavator Refusal at 6'	D	3A	2
7'				
8'				
9'				
10'				
11'				
12'				
13'				
14'				

REMARKS:

1. Mottled soil observed at approximately 3.5 feet below grade. Groundwater not encountered.
2. Excavator refusal on bedrock at 6 feet below grade.

TEST PIT PLAN	LEGEND							
 <p style="text-align: center;">North</p> <p>Depth = <u>6</u> ft. Volume = <u>4</u> cu.yd.</p>	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS		EXCAVATION EFFORT	
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine	E - Easy		
6" - 18"	A	LITTLE (LI)	10-20%	M - Medium	M - Moderate			
18" - 36"	B	SOME (SO)	20-35%	C - Coarse	D - Difficult			
36" and Larger	C	AND	35-50%	F/M - Fine to Medium				
				V - Very	GROUNDWATER			
				GR - Gray	Elapsed Time			
				BN - Brown	to Reading			
				YEL - Yellow	(hours)			
						G.W.L.		

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-10E</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1446±</u> Time Started <u>1055</u> Time Completed <u>1107</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	2A, 1B	
--- 2' ---	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	1A	
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, little Silt (Glacial Till) Excavator Refusal at 3.5'	D		
--- 4' ---		D		1, 2
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:
 1. Excavator refusal on bedrock at 3.5 feet below grade.
 2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND																																																								
<p style="text-align: center;">North</p> <p>Depth = <u>3.5</u> ft. Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																																																					
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Size Range</td> <td style="text-align: center;">Letter</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Classification</td> <td style="text-align: center;">Designation</td> <td>TRACE (TR)</td> <td style="text-align: center;">0-10%</td> <td>F - Fine</td> </tr> <tr> <td style="text-align: center;">6" - 18"</td> <td style="text-align: center;">A</td> <td>LITTLE (LI)</td> <td style="text-align: center;">10-20%</td> <td>M - Medium</td> </tr> <tr> <td style="text-align: center;">18" - 36"</td> <td style="text-align: center;">B</td> <td>SOME (SO)</td> <td style="text-align: center;">20-35%</td> <td>C - Coarse</td> </tr> <tr> <td style="text-align: center;">36" and Larger</td> <td style="text-align: center;">C</td> <td>AND</td> <td style="text-align: center;">35-50%</td> <td>F/M - Fine to Medium</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>F/C - Fine to Coarse</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>V - Very</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>GR - Gray</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>BN - Brown</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>YEL - Yellow</td> </tr> </table>	Size Range	Letter				Classification	Designation	TRACE (TR)	0-10%	F - Fine	6" - 18"	A	LITTLE (LI)	10-20%	M - Medium	18" - 36"	B	SOME (SO)	20-35%	C - Coarse	36" and Larger	C	AND	35-50%	F/M - Fine to Medium					F/C - Fine to Coarse					V - Very					GR - Gray					BN - Brown					YEL - Yellow	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">E - Easy</td> <td></td> </tr> <tr> <td style="text-align: center;">M - Moderate</td> <td></td> </tr> <tr> <td style="text-align: center;">D - Difficult</td> <td></td> </tr> </table>	E - Easy		M - Moderate		D - Difficult
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TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-11</u>	File No. <u>44818.02</u>
		Date <u>7/20/2011</u>	
GZA Engineer <u>T. Bjartmarz</u>	EXCAVATION EQUIPMENT		Ground Elevation <u>1452±</u>
Weather <u>80s Sunny</u>	Contractor <u>HTS Construction</u>	Operator <u>Bruce Remillard</u>	Time Started <u>1300</u>
	Make <u>Volvo</u> Model <u>EC35</u>	Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Time Completed <u>1310</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	2A	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	1A	
--- 3' ---	2.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D		1
--- 4' ---	Excavator Refusal at 2.5'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 2.5 feet below grade.
- Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>2.5</u> ft.</p> <p>Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LL) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER Elapsed Time to Reading (hours) G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-12</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1462±</u> Time Started <u>1112</u> Time Completed <u>1125</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, little Silt (Topsoil)	E	1A	
--- 2' ---	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	4A, 1B	
--- 3' ---	2.5' 3' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	3A	1
--- 4' ---	Excavator Refusal at 3'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 3 feet below grade.
2. Groundwater not encountered in test pit.

<u>TEST PIT PLAN</u>	<u>LEGEND</u>																																									
<p style="text-align: center;">North</p> <p>Depth = <u>3</u> ft. Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																																						
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Size Range</td> <td style="width: 20%;">Letter</td> <td style="width: 20%;">Classification</td> <td style="width: 20%;">Designation</td> </tr> <tr> <td>6" - 18"</td> <td>A</td> <td>SOME (SO)</td> <td>35-50%</td> </tr> <tr> <td>18" - 36"</td> <td>B</td> <td>AND</td> <td></td> </tr> <tr> <td>36" and Larger</td> <td>C</td> <td></td> <td></td> </tr> </table>	Size Range	Letter	Classification	Designation	6" - 18"	A	SOME (SO)	35-50%	18" - 36"	B	AND		36" and Larger	C			<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">TRACE (TR)</td> <td style="width: 20%;">0-10%</td> </tr> <tr> <td>LITTLE (LI)</td> <td>10-20%</td> </tr> <tr> <td>SOME (SO)</td> <td>20-35%</td> </tr> <tr> <td>AND</td> <td>35-50%</td> </tr> </table>	TRACE (TR)	0-10%	LITTLE (LI)	10-20%	SOME (SO)	20-35%	AND	35-50%	<table style="width: 100%; border-collapse: collapse;"> <tr><td>F - Fine</td></tr> <tr><td>M - Medium</td></tr> <tr><td>C - Coarse</td></tr> <tr><td>F/M - Fine to Medium</td></tr> <tr><td>F/C - Fine to Coarse</td></tr> <tr><td>V - Very</td></tr> <tr><td>GR - Gray</td></tr> <tr><td>BN - Brown</td></tr> <tr><td>YEL - Yellow</td></tr> </table>	F - Fine	M - Medium	C - Coarse	F/M - Fine to Medium	F/C - Fine to Coarse	V - Very	GR - Gray	BN - Brown	YEL - Yellow	<table style="width: 100%; border-collapse: collapse;"> <tr><td>E - Easy</td></tr> <tr><td>M - Moderate</td></tr> <tr><td>D - Difficult</td></tr> </table> <p style="text-align: center;">GROUNDWATER</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Elapsed Time to Reading (hours)</td> <td style="width: 20%; text-align: center;"> </td> <td style="width: 30%; text-align: center;">G.W.L.</td> </tr> </table>	E - Easy	M - Moderate	D - Difficult	Elapsed Time to Reading (hours)	
Size Range	Letter	Classification	Designation																																							
6" - 18"	A	SOME (SO)	35-50%																																							
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Elapsed Time to Reading (hours)		G.W.L.																																								

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists.	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-13</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1467±</u> Time Started <u>830</u> Time Completed <u>853</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M	4A, 1B	1
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	6A	
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	3A	
--- 4' ---		D	5A	
--- 5' ---		D	4A	
--- 6' ---		D	6A	2, 3
--- 7' ---	Excavator Refusal at 6'			
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Test pit relocated approximately 21 feet to the west of the originally planned test pit location.
2. Excavator refusal on bedrock at 6 feet below grade.
3. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>6</u> ft. Volume = <u>6</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (L) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)
	6" - 18" A 18" - 36" B 36" and Larger C			G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-14</u>	File No. <u>44818.02</u>
		Date <u>7/20/2011</u>	
GZA Engineer <u>T. Bjartmarz</u>	EXCAVATION EQUIPMENT		Ground Elevation <u>1490±</u>
Weather <u>80s Sunny</u>	Contractor <u>HTS Construction</u>	Operator <u>Bruce Remillard</u>	Time Started _____
	Make <u>Volvo</u> Model <u>EC35</u>	Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	1A	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	1A, 1B	
--- 3' ---	2.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D		1, 2
--- 4' ---	Excavator Refusal at 2.5'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 2.5 feet below grade.
- Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>2.5</u> ft.</p> <p>Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-15</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1472±</u> Time Started <u>1328</u> Time Completed <u>1332</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	3A	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, some Silt, little Roots (Subsoil)	D	4A, 1B	
--- 3' ---	3' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	3A	1, 2
--- 4' ---	Excavator Refusal at 3'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 3 feet below grade.
- Groundwater not encountered at test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>3</u> ft. Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER
				Elapsed Time to Reading (hours) G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-16</u> File No. <u>44818.02</u> Date <u>7/20/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>80s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1461±</u> Time Started <u>1342</u> Time Completed <u>1350</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	3A, 1B	
--- 2' ---	2.5' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	3A, 1B	
--- 3' ---	3.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	3A, 2B	
--- 4' ---	Excavator Refusal at 3.5'	D		1, 2
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 3.5 feet below grade.
2. Groundwater not encountered at test pit.

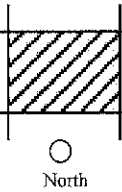

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>3.5</u> ft. Volume = <u>2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult <div style="text-align: center;">GROUNDWATER</div> Elapsed Time to Reading (hours) <div style="display: inline-block; vertical-align: middle; text-align: center;"> </div> G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-17</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1474±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	Exposed bedrock outcrop observed at test pit location			1
--- 2' ---				
--- 3' ---				
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:
1. Test pit eliminated due to exposed possible bedrock.

TEST PIT PLAN	LEGEND			
 Depth = _____ ft. Volume = _____ cu.yd.	BOULDER COUNT Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	PROPORTIONS USED TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	ABBREVIATIONS F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	EXCAVATION EFFORT E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours) <div style="display: inline-block; text-align: center; vertical-align: middle;">  G.W.L. </div>

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-18</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1466±</u> Time Started <u>700</u> Time Completed <u>705</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	3A, 1B	
--- 2' ---	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	E	2A, 1B	
--- 3' ---	3'	M		
--- 4' ---	4' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D		1, 2
--- 5' ---	Excavator Refusal at 4'			
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 4 feet below grade.
- Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)
				G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-19</u> File No. <u>44818.02</u> Date <u>7/25/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1468±</u> Time Started <u>725</u> Time Completed <u>730</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	1A	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	E	2B	
--- 3' ---	2.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D		1
--- 4' ---	Excavator Refusal at 2.5'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 2.5 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND																																						
<p style="text-align: center;">North</p> <p>Depth = <u>2.5</u> ft. Volume = <u>1.5</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																																			
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Size Range</td> <td style="width: 15%;">Letter</td> <td style="width: 15%;">Classification</td> <td style="width: 15%;">Designation</td> </tr> <tr> <td>6" - 18"</td> <td>A</td> <td>SOME (SO)</td> <td></td> </tr> <tr> <td>18" - 36"</td> <td>B</td> <td>AND</td> <td></td> </tr> <tr> <td>36" and Larger</td> <td>C</td> <td></td> <td></td> </tr> </table>	Size Range	Letter	Classification	Designation	6" - 18"	A	SOME (SO)		18" - 36"	B	AND		36" and Larger	C			<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">TRACE (TR)</td> <td style="width: 15%;">0-10%</td> </tr> <tr> <td>LITTLE (LI)</td> <td>10-20%</td> </tr> <tr> <td>SOME (SO)</td> <td>20-35%</td> </tr> <tr> <td>AND</td> <td>35-50%</td> </tr> </table>	TRACE (TR)	0-10%	LITTLE (LI)	10-20%	SOME (SO)	20-35%	AND	35-50%	<table style="width: 100%; border-collapse: collapse;"> <tr><td>F - Fine</td></tr> <tr><td>M - Medium</td></tr> <tr><td>C - Coarse</td></tr> <tr><td>F/M - Fine to Medium</td></tr> <tr><td>F/C - Fine to Coarse</td></tr> <tr><td>V - Very</td></tr> <tr><td>GR - Gray</td></tr> <tr><td>BN - Brown</td></tr> <tr><td>YEL - Yellow</td></tr> </table>	F - Fine	M - Medium	C - Coarse	F/M - Fine to Medium	F/C - Fine to Coarse	V - Very	GR - Gray	BN - Brown	YEL - Yellow	<table style="width: 100%; border-collapse: collapse;"> <tr><td>E - Easy</td></tr> <tr><td>M - Moderate</td></tr> <tr><td>D - Difficult</td></tr> </table>	E - Easy	M - Moderate
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	GROUNDWATER																																						
	Elapsed Time to Reading (hours)		G.W.L.																																				

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-20</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1456±</u> Time Started <u>901</u> Time Completed <u>905</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	1A	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D		
--- 3' ---	2.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, little Silt (Glacial Till)	D		1, 2
--- 4' ---	Excavator Refusal at 2.5'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 2.5 feet below grade.
- Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND																																							
<p style="text-align: center;">North</p> <p>Depth = <u>2.5</u> ft. Volume = <u>1.5</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																																				
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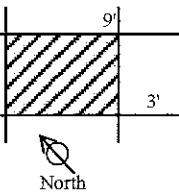

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-21</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25 cu.yd.</u> Reach <u>15 ft.</u>	Ground Elevation <u>1444±</u> Time Started <u>916</u> Time Completed <u>927</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	3A, 1B	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	2A	
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	M		1
--- 4' ---		D		
--- 5' ---		D		
--- 6' ---		D		2
--- 7' ---		Excavator Refusal at 6'		
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Mottled soil observed at approximately 3 feet below grade. Groundwater not encountered.
2. Excavator refusal on bedrock at 6 feet below grade.

TEST PIT PLAN	LEGEND					
 <p style="text-align: center;">North</p> <p>Depth = <u>6</u> ft. Volume = <u>5</u> cu.yd.</p>	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18"	A	LITTLE (LI)	10-20%		
	18" - 36"	B	SOME (SO)	20-35%		
	36" and Larger	C	AND	35-50%		
					GROUNDWATER	
					Elapsed Time to Reading (hours)	 G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-22</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1445±</u> Time Started <u>841</u> Time Completed <u>847</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	2A	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M		
--- 3' ---	3' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D		1, 2
--- 4' ---	Excavator Refusal at 3'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 3 feet below grade.
- Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
	BOULDER COUNT Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	PROPORTIONS USED TRACE (TR) 0-10% LITTLE (L1) 10-20% SOME (SO) 20-35% AND 35-50%	ABBREVIATIONS F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	EXCAVATION EFFORT E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours) G.W.L.

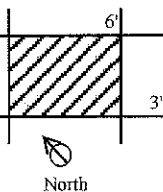

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-23</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1454'±</u> Time Started <u>725</u> Time Completed <u>730</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	E	1A	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	1A, 1B	
--- 3' ---	2.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, little Silt (Glacial Till)	D		1, 2
--- 4' ---	Excavator Refusal at 2.5'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Excavator refusal on bedrock at 2.5 feet below grade.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
 <p style="text-align: center;">North</p> <p>Depth = <u>2.5</u> ft. Volume = <u>1.5</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER
				Elapsed Time to Reading (hours)  G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-24</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1447±</u> Time Started <u>756</u> Time Completed <u>800</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
1'	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	5A, 1B	
2'	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	3A, 1B	
3'	3'	D		
4'	4' Gray, fine to coarse SAND and fine to coarse GRAVEL, little Silt (Glacial Till)	D		1, 2
5'	Excavator Refusal at 4"			
6'				
7'				
8'				
9'				
10'				
11'				
12'				
13'				
14'				

REMARKS:

1. Excavator refusal on bedrock at 4 feet below grade.
2. Groundwater not encountered in test pit.

<u>TEST PIT PLAN</u>	<u>LEGEND</u>			
	<u>BOULDER COUNT</u>	<u>PROPORTIONS USED</u>	<u>ABBREVIATIONS</u>	<u>EXCAVATION EFFORT</u>
	Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)
				G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-25</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1435±</u> Time Started <u>950</u> Time Completed <u>1010</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M	3A, 1C	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	2A	1
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	M	1A	
--- 4' ---		M		
--- 5' ---		M		
--- 6' ---		M		
--- 7' ---		M		
--- 8' ---		D		2
--- 9' ---		D		
--- 10' ---		9.5' End of Exploration at 9.5'	D	
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Mottled soil observed at approximately 2 feet below grade.
2. Groundwater observed at 8 feet below grade.
3. Exploration terminated in glacial till.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>9.5</u> ft. Volume = <u>8</u> cu.yd.</p>	BOULDER COUNT		PROPORTIONS USED	ABBREVIATIONS
	Size Range Classification	Letter Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow
				EXCAVATION EFFORT
				E - Easy M - Moderate D - Difficult
				GROUNDWATER
				Elapsed Time to Reading (hours) 8' G.W.L.

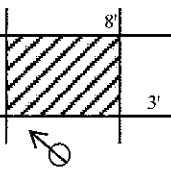

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-26</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1433'±</u> Time Started <u>1130</u> Time Completed <u>1140</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M		
--- 2' ---	2.5' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D		
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D		1
--- 4' ---		D		
--- 5' ---		D		
--- 6' ---		D	1A	
--- 7' ---		D		2, 3
--- 8' ---	7' End of Exploration at 7'			
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Mottled soil observed at approximately 3 feet below grade.
2. Exploration terminated in glacial till.
3. Groundwater not encountered.

TEST PIT PLAN	LEGEND			
 <p style="text-align: center;">North</p> <p>Depth = <u>7</u> ft. Volume = <u>5</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER Elapsed Time to Reading (hours)  G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-27</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1432±</u> Time Started <u>1050</u> Time Completed <u>1100</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	4A, 1C	
--- 2' ---	2.5' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	4A, 1B	1
--- 3' ---	7' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	3A	
--- 4' ---		D		
--- 5' ---		D		
--- 6' ---		D		
--- 7' ---		D		2, 3
--- 8' ---	End of Exploration at 7'			
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Mottled soil observed at approximately 3 feet below grade.
2. Groundwater observed at 6 feet below grade.
3. Exploration terminated in glacial till.

TEST PIT PLAN	LEGEND					
<p style="text-align: center;">North</p> <p>Depth = <u>7</u> ft. Volume = <u>4</u> cu.yd.</p>	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
6" - 18" 18" - 36" 36" and Larger	A B C	LITTLE (LI) SOME (SO) AND	10-20% 20-35% 35-50%		<p style="text-align: center;">GROUNDWATER</p> <p>Elapsed Time to Reading (hours) <u>6'</u> G.W.L.</p>	

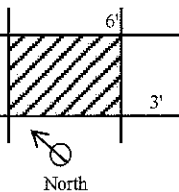

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-28</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1436±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M		
--- 2' ---	2.5' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	1B	
--- 3' ---	8' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D		
--- 4' ---		D		
--- 5' ---		D		
--- 6' ---		D		
--- 7' ---		D		
--- 8' ---		D		1, 2
--- 9' ---	End of Exploration at 8'			
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND					
 <p style="text-align: center;">North</p> <p>Depth = <u>8</u> ft. Volume = <u>4</u> cu.yd.</p>	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
6" - 18" A 18" - 36" B 36" and Larger C		LITTLE (L) SOME (SO) AND	10-20% 20-35% 35-50%		GROUNDWATER Elapsed Time to Reading (hours)	 G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-29</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1443±</u> Time Started <u>1141</u> Time Completed <u>1158</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M	2A, 1B	
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	3A	
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	1A	
--- 4' ---		D	1A	
--- 5' ---		D	3A	
--- 6' ---		D		1, 2
--- 7' ---	6' End of Exploration at 6'			
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>6</u> ft. Volume = <u>4</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (L) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C		NE/ G.W.L.	

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-30</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1449±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.	
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, some Silt (Topsoil)	M	2A		
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M	2A		
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	2A		
--- 4' ---		D	2A		
--- 5' ---		D	2A		
--- 6' ---		D	2A		
--- 7' ---		D	2A	1, 2	
--- 8' ---		8'			
--- 9' ---		End of Exploration at 8'			
--- 10' ---					
--- 11' ---					
--- 12' ---					
--- 13' ---					
--- 14' ---					

REMARKS:

- Groundwater not encountered in test pit.
- Test pit terminated in glacial till.

TEST PIT PLAN	LEGEND																																																																
<p style="text-align: center;">North</p> <p>Depth = <u>8</u> ft. Volume = <u>6</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																																																													
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Size Range</td> <td style="text-align: center;">Letter</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Classification</td> <td style="text-align: center;">Designation</td> <td>TRACE (TR)</td> <td style="text-align: center;">0-10%</td> <td>F - Fine</td> </tr> <tr> <td style="text-align: center;">6" - 18"</td> <td style="text-align: center;">A</td> <td>LITTLE (LI)</td> <td style="text-align: center;">10-20%</td> <td>M - Medium</td> </tr> <tr> <td style="text-align: center;">18" - 36"</td> <td style="text-align: center;">B</td> <td>SOME (SO)</td> <td style="text-align: center;">20-35%</td> <td>C - Coarse</td> </tr> <tr> <td style="text-align: center;">36" and Larger</td> <td style="text-align: center;">C</td> <td>AND</td> <td style="text-align: center;">35-50%</td> <td>F/M - Fine to Medium</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>F/C - Fine to Coarse</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>V - Very</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>GR - Gray</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>BN - Brown</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>YEL - Yellow</td> </tr> </table>	Size Range	Letter				Classification	Designation	TRACE (TR)	0-10%	F - Fine	6" - 18"	A	LITTLE (LI)	10-20%	M - Medium	18" - 36"	B	SOME (SO)	20-35%	C - Coarse	36" and Larger	C	AND	35-50%	F/M - Fine to Medium					F/C - Fine to Coarse					V - Very					GR - Gray					BN - Brown					YEL - Yellow			<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">E - Easy</td> <td></td> </tr> <tr> <td style="text-align: center;">M - Moderate</td> <td></td> </tr> <tr> <td style="text-align: center;">D - Difficult</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">GROUNDWATER</td> </tr> <tr> <td style="text-align: center;">Elapsed Time to Reading (hours)</td> <td style="text-align: center;"> </td> </tr> <tr> <td></td> <td style="text-align: center;">G.W.L.</td> </tr> </table>	E - Easy		M - Moderate		D - Difficult		GROUNDWATER		Elapsed Time to Reading (hours)		
Size Range	Letter																																																																
Classification	Designation	TRACE (TR)	0-10%	F - Fine																																																													
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TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-31</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	EXCAVATION EQUIPMENT	Ground Elevation <u>1443±</u>
	Contractor <u>HTS Construction</u>	Time Started _____
	Operator <u>Bruce Remillard</u>	Time Completed _____
	Make <u>Volvo</u> Model <u>EC35</u>	
	Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M		
--- 2' ---	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	M		
--- 3' ---	2.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	M		
--- 4' ---		D		
--- 5' ---		D		
--- 6' ---		D		
--- 7' ---	7' End of Exploration at 7'	D		1, 2
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered in test pit.

<p>TEST PIT PLAN</p> <p style="font-size: small;">Depth = <u>7</u> ft. Volume = <u>4</u> cu.yd.</p>	<p style="text-align: center;">LEGEND</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th style="width: 20%;">BOULDER COUNT</th> <th style="width: 20%;">PROPORTIONS USED</th> <th style="width: 20%;">ABBREVIATIONS</th> <th style="width: 40%;">EXCAVATION EFFORT</th> </tr> </thead> <tbody> <tr> <td>Size Range Letter Classification Designation</td> <td>TRACE (TR) 0-10% LITTLE (LJ) 10-20% SOME (SO) 20-35% AND 35-50%</td> <td>F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow</td> <td>E - Easy M - Moderate D - Difficult</td> </tr> <tr> <td>6" - 18" A 18" - 36" B 36" and Larger C</td> <td></td> <td></td> <td style="text-align: center;">GROUNDWATER</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Elapsed Time to Reading (hours) G.W.L.</td> </tr> </tbody> </table>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LJ) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER				Elapsed Time to Reading (hours) G.W.L.
BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT														
Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LJ) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult														
6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER														
			Elapsed Time to Reading (hours) G.W.L.														

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-32</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1432±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
1'	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	3A	
2'	1' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)	D	1B	
3'	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	D	2A	
4'		D		
5'		D		
6'		D		
7'		D		
8'	8' End of Exploration at 8'	D		1, 2
9'				
10'				
11'				
12'				
13'				
14'				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
<p style="text-align: center;">North</p> <p>Depth = <u>8</u> ft. Volume = <u>6</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (Ll) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)
	6" - 18" A 18" - 36" B 36" and Larger C			G.W.L.

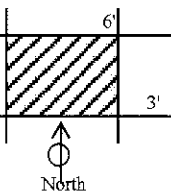

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-33</u>	File No. <u>44818.02</u>
		Date <u>7/21/2011</u>	
GZA Engineer <u>T. Bjartmarz</u>	EXCAVATION EQUIPMENT		Ground Elevation <u>1465±</u>
Weather <u>90s Sunny</u>	Contractor <u>HTS Construction</u>	Operator <u>Bruce Remillard</u>	Time Started _____
	Make <u>Volvo</u> Model <u>EC35</u>		Time Completed _____
	Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.		

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, little Silt (Topsoil)	D	1A	1, 2
--- 2' ---	Excavator Refusal at 0.5'			
--- 3' ---				
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 0.5 feet below grade.
- Groundwater not encountered in test pit.

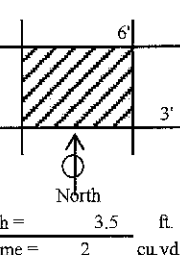

TEST PIT PLAN	LEGEND			
 <p style="text-align: center;">North</p> <p>Depth = <u>0.5</u> ft.</p> <p>Volume = <u>0.2</u> cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (L) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER
				Elapsed Time to Reading (hours)  G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-34</u>	File No. <u>44818.02</u>
		Date <u>7/21/2011</u>	
GZA Engineer <u>T. Bjartmarz</u>	<u>EXCAVATION EQUIPMENT</u>		
Weather <u>90s Sunny</u>	Contractor <u>HTS Construction</u>	Ground Elevation <u>1450±</u>	
	Operator <u>Bruce Remillard</u>	Time Started <u>808</u>	
	Make <u>Volvo</u> Model <u>EC35</u>	Time Completed <u>817</u>	
	Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.		

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	D	1A	1, 2
--- 2' ---	2.5' Brown, fine to coarse SAND and fine to coarse GRAVEL, little Roots, little Silt (Subsoil)			
--- 3' ---	3.5' Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)			
--- 4' ---	Excavator Refusal at 3.5'			
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

- REMARKS:
- Excavator refusal on bedrock at 3.5 feet below grade.
 - Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND				
	BOULDER COUNT		PROPORTIONS USED		EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow
	6" - 18"	A	LITTLE (L)	10-20%	GROUNDWATER Elapsed Time to Reading (hours)  G.W.L.
	18" - 36"	B	SOME (SO)	20-35%	
	36" and Larger	C	AND	35-50%	

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-35</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1453±</u> Time Started <u>825</u> Time Completed <u>830</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, little Silt (Topsoil) Excavator Refusal at 0.5'	D		1, 2
--- 2' ---				
--- 3' ---				
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---				
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

- Excavator refusal on bedrock at 0.5 feet below grade.
- Groundwater not encountered in test pit.

TEST PIT PLAN	LEGEND			
	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	TRACE (TR) 0-10% LITTLE (L) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)
				G.W.L.

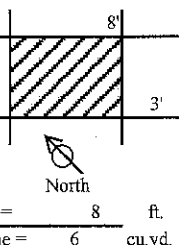

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-36</u> File No. <u>44818.02</u> Date <u>7/21/2011</u>
GZA Engineer <u>T. Bjartmarz</u> Weather <u>90s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1447±</u> Time Started _____ Time Completed _____

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Dark brown, fine to coarse SAND and ORGANIC MATTER, little fine to coarse Gravel, trace Silt (Topsoil)	M		
--- 2' ---	2' Brown, fine to coarse SAND and fine to coarse GRAVEL, some Silt, little Roots (Subsoil)	M		
--- 3' ---	Gray, fine to coarse SAND and fine to coarse GRAVEL, some Silt (Glacial Till)	M		
--- 4' ---		D		
--- 5' ---		D		
--- 6' ---		D		
--- 7' ---		D		
--- 8' ---		D		1, 2
--- 9' ---		8' End of Exploration at 8'		
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater observed at 7.5 feet below grade.

TEST PIT PLAN	LEGEND						
	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT	
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult	
	6" - 18"	A	LITTLE (L)	10-20%			
	18" - 36"	B	SOME (SO)	20-35%			
	36" and Larger	C	AND	35-50%			
					GROUNDWATER		
					Elapsed Time to Reading (hours)		G.W.L.

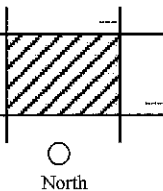

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-37</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1431±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
---	1'	0.8'			
		TOPSOIL and FOREST LITTER			
		Orange-brown, fine SAND, some Silt (Subsoil)			
---	2'	2.2'			
		Gray, fine SAND, little Silt, trace Cobbles (Glacial Till)			
---	3'				
---	4'				
---	5'				
---	6'				
---	7'	7.2'			
		End of Exploration at 7.2'			
---	8'				
---	9'				
---	10'				
---	11'				
---	12'				
---	13'				
---	14'				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

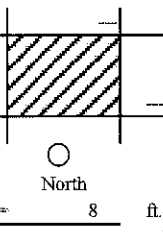

TEST PIT PLAN	LEGEND			
 <p style="text-align: center;">North</p> <p>Depth = <u>7.2</u> ft.</p> <p>Volume = _____ cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow
	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER
				Elapsed Time to Reading (hours)  G.W.L.

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-38</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1446±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1.5'	Topsoil			
--- 2' ---		Orange-brown, fine SAND, some Silt (Subsoil)			
--- 3' ---	3'	Gray, fine SAND, little Silt, trace Cobbles (Glacial Till)			
--- 4' ---					
--- 5' ---					
--- 6' ---					
--- 7' ---					
--- 8' ---	8'				
--- 9' ---		End of Exploration at 8'			
--- 10' ---					
--- 11' ---					
--- 12' ---					
--- 13' ---					
--- 14' ---					

- REMARKS:
1. Exploration terminated in glacial till.
 2. Groundwater not encountered.
 3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN	LEGEND						
	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT	
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult	
	6" - 18"	A	LITTLE (LI)	10-20%			
	18" - 36"	B	SOME (SO)	20-35%			
	36" and Larger	C	AND	35-50%			
					GROUNDWATER		
					Elapsed Time to Reading (hours)		G.W.L.

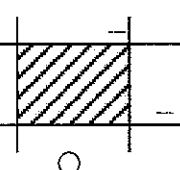

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-39</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1437±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	1' Topsoil			
--- 2' ---	2.5' Brown, fine SAND, some Silt (Subsoil)			
--- 3' ---	7.5' Gray, fine SAND, some Silt (Glacial Till)			
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---	End of Exploration at 7.5'			
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 4 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN	LEGEND				
 North Depth = <u>7.5</u> ft. Volume = _____ cu.yd.	BOULDER COUNT		PROPORTIONS USED		EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow
	6" - 18" A 18" - 36" B 36" and Larger C		LITTLE (L) SOME (SO) AND	10-20% 20-35% 35-50%	GROUNDWATER Elapsed Time to Reading (hours)  G.W.L.

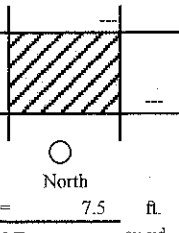

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-40</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1440±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.5' Topsoil			
--- 2' ---	Brown, fine SAND, some Silt (Subsoil)			
--- 3' ---	2.5' Gray, fine SAND, some Silt (Glacial Till)			
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---	7.5' End of Exploration at 7.5'			
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 4 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN	LEGEND					
	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18" 18" - 36" 36" and Larger	A B C	LITTLE (LJ) SOME (SO) AND	10-20% 20-35% 35-50%		GROUNDWATER Elapsed Time to Reading (hours)  G.W.L.

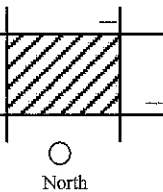
TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-41</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1436±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth	SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	Topsoil			
--- 2' ---	Brown, fine SAND, some Silt, trace Roots (Subsoil)			
--- 3' ---	Gray, fine SAND, some Silt (Glacial Till)			
--- 4' ---				
--- 5' ---				
--- 6' ---				
--- 7' ---				
--- 8' ---	End of Exploration at 7'			
--- 9' ---				
--- 10' ---				
--- 11' ---				
--- 12' ---				
--- 13' ---				
--- 14' ---				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 3.3 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN	LEGEND																																																						
 <p style="text-align: center;">North</p> <p>Depth = <u>7</u> ft.</p> <p>Volume = _____ cu.yd.</p>	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT																																																			
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Size Range</td> <td style="width: 15%;">Letter</td> <td style="width: 15%;">TRACE (TR)</td> <td style="width: 15%;">0-10%</td> <td style="width: 15%;">F - Fine</td> <td style="width: 15%;">E - Easy</td> </tr> <tr> <td>Classification</td> <td>Designation</td> <td>LITTLE (LI)</td> <td>10-20%</td> <td>M - Medium</td> <td>M - Moderate</td> </tr> <tr> <td>6" - 18"</td> <td>A</td> <td>SOME (SO)</td> <td>20-35%</td> <td>C - Coarse</td> <td>D - Difficult</td> </tr> <tr> <td>18" - 36"</td> <td>B</td> <td>AND</td> <td>35-50%</td> <td>F/M - Fine to Medium</td> <td></td> </tr> <tr> <td>36" and Larger</td> <td>C</td> <td></td> <td></td> <td>F/C - Fine to Coarse</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>V - Very</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>GR - Gray</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>BN - Brown</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>YEL - Yellow</td> <td></td> </tr> </table>	Size Range	Letter	TRACE (TR)	0-10%	F - Fine	E - Easy	Classification	Designation	LITTLE (LI)	10-20%	M - Medium	M - Moderate	6" - 18"	A	SOME (SO)	20-35%	C - Coarse	D - Difficult	18" - 36"	B	AND	35-50%	F/M - Fine to Medium		36" and Larger	C			F/C - Fine to Coarse						V - Very						GR - Gray						BN - Brown						YEL - Yellow	
Size Range	Letter	TRACE (TR)	0-10%	F - Fine	E - Easy																																																		
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				BN - Brown																																																			
				YEL - Yellow																																																			

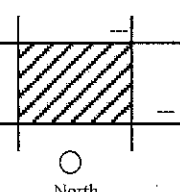

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-42</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1436±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
--- 1' ---	0.8'	Topsoil			
--- 2' ---	2'	Brown, fine SAND, some Silt (Subsoil)			
--- 3' ---		Gray, fine SAND, some Silt (Glacial Till)			
--- 4' ---					
--- 5' ---					
--- 6' ---					
--- 7' ---					
--- 8' ---	7.5'	End of Exploration at 7.5'			
--- 9' ---					
--- 10' ---					
--- 11' ---					
--- 12' ---					
--- 13' ---					
--- 14' ---					

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 4 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

<u>TEST PIT PLAN</u>	<u>LEGEND</u>					
 <p style="text-align: center;">North</p> <p>Depth = <u>7.5</u> ft.</p> <p>Volume = _____ cu.yd.</p>	<u>BOULDER COUNT</u>		<u>PROPORTIONS USED</u>		<u>ABBREVIATIONS</u>	<u>EXCAVATION EFFORT</u>
	Size Range	Letter	TRACE (TR)	0-10%	F - Fine	E - Easy
Classification	Designation	LITTLE (L)	10-20%	M - Medium	M - Moderate	
6" - 18"	A	SOME (SO)	20-35%	C - Coarse	D - Difficult	
18" - 36"	B	AND	35-50%	F/M - Fine to Medium		
36" and Larger	C			E/C - Fine to Coarse		
				V - Very		
				GR - Gray		
				BN - Brown		
				YEL - Yellow		
					GROUNDWATER	
					Elapsed Time	
					to Reading (hours)	
						G.W.L.

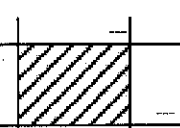

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-43</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1446±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
---	1'	0.8'			
		Topsoil			
---	2'	2'			
		Brown, fine SAND, some Silt (Subsoil)			
---	3'	7'			
			Gray, fine SAND, some Silt (Glacial Till)		
---	4'				
---	5'				
---	6'				
---	7'				
---	8'		End of Exploration at 7'		
---	9'				
---	10'				
---	11'				
---	12'				
---	13'				
---	14'				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 3 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN	LEGEND			
 North Depth = <u>7</u> ft. Volume = _____ cu.yd.	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)  G.W.L.

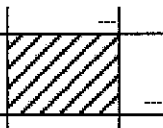

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-44</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1308±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
---	1'	0.7'			
		Topsoil			
---	2'	2.5'			
		Brown, fine SAND, some Silt (Subsoil)			
---	3'				
		Gray, fine SAND, some Silt (Glacial Till)			
---	4'				
---	5'				
---	6'				
---	7'	7'			
---	8'				
		End of Exploration at 7'			
---	9'				
---	10'				
---	11'				
---	12'				
---	13'				
---	14'				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 3.5 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN	LEGEND			
	BOULDER COUNT	PROPORTIONS USED	ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Letter Classification Designation	TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	E - Easy M - Moderate D - Difficult
North Depth = <u>7</u> ft. Volume = _____ cu.yd.	6" - 18" A 18" - 36" B 36" and Larger C			GROUNDWATER Elapsed Time to Reading (hours) <div style="display: inline-block; text-align: center;">  </div> G.W.L.

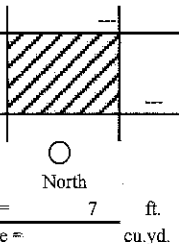

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-45</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1306±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
---	1'	Topsoil			
---	2'	Brown, fine SAND, some Silt (Subsoil)			
---	3'	Gray, fine SAND, some Silt (Glacial Till)			
---	4'				
---	5'				
---	6'				
---	7'				
---	8'	End of Exploration at 7'			
---	9'				
---	10'				
---	11'				
---	12'				
---	13'				
---	14'				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 2 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN	LEGEND					
	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT
	Size Range Classification	Letter Designation	TRACE (TR)	0-10%	F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown VEL - Yellow	E - Easy M - Moderate D - Difficult
	6" - 18"	A	LITTLE (LI)	10-20%		GROUNDWATER Elapsed Time to Reading (hours)  G.W.L.
	18" - 36"	B	SOME (SO)	20-35%		
	36" and Larger	C	AND	35-50%		

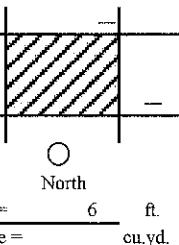
TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	PROJECT <i>BNE Wind Turbine Project</i> <i>Colebrook, CT</i>	Test Pit No. <u>CSTP-46</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	EXCAVATION EQUIPMENT Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1326±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
---	1'	0.8'			
		Topsoil			
---	2'	2.5'			
		Orange-brown, fine SAND, some Silt (Subsoil)			
---	3'				
		Gray, fine SAND and SILT (Glacial Till)			
---	4'				
---	5'				
---	6'	6'			
		End of Exploration at 6'			
---	7'				
---	8'				
---	9'				
---	10'				
---	11'				
---	12'				
---	13'				
---	14'				

REMARKS:

1. Exploration terminated in glacial till.
2. Groundwater not encountered. Mottled soil observed at 2.5 feet below grade.
3. Excavation effort and boulder count not recorded. Test pit plan not recorded.

TEST PIT PLAN 	BOULDER COUNT Size Range Letter Classification Designation 6" - 18" A 18" - 36" B 36" and Larger C	PROPORTIONS USED TRACE (TR) 0-10% LITTLE (LI) 10-20% SOME (SO) 20-35% AND 35-50%	ABBREVIATIONS F - Fine M - Medium C - Coarse F/M - Fine to Medium F/C - Fine to Coarse V - Very GR - Gray BN - Brown YEL - Yellow	EXCAVATION EFFORT E - Easy M - Moderate D - Difficult GROUNDWATER Elapsed Time to Reading (hours)
---	---	---	---	--



G.W.L.

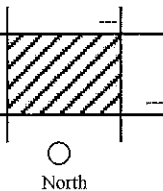

TEST PIT FIELD LOG

GZA GeoEnvironmental, Inc. Engineers and Scientists	<u>PROJECT</u> <i>BNE Wind Turbine Project Colebrook, CT</i>	Test Pit No. <u>CSTP-47</u> File No. <u>44818.02</u> Date <u>8/22/2011</u>
GZA Engineer <u>Curt Jones (Civil)</u> Weather <u>70s Sunny</u>	<u>EXCAVATION EQUIPMENT</u> Contractor <u>HTS Construction</u> Operator <u>Bruce Remillard</u> Make <u>Volvo</u> Model <u>EC35</u> Capacity <u>0.25</u> cu.yd. Reach <u>15</u> ft.	Ground Elevation <u>1328±</u> Time Started <u>---</u> Time Completed <u>---</u>

Depth		SOIL DESCRIPTION	Excav. Effort	Boulder Count Qty. Class.	Remark No.
---	1'	0.8'			
		Topsoil			
---	2'	2.2'			
		Orange-brown, fine SAND, some Silt (Subsoil)			
---	3'				
		Gray, fine SAND and SILT (Glacial Till)			
---	4'				
---	5'				
---	6'	6'			
		Excavator Refusal at 6'			
---	7'				
---	8'				
---	9'				
---	10'				
---	11'				
---	12'				
---	13'				
---	14'				

REMARKS:

1. Excavation effort and boulder count not recorded. Test pit plan not recorded.
2. Mottled soil observed at 2.2 feet below grade.
3. Excavator refusal on bedrock at 6 feet below grade.

TEST PIT PLAN	LEGEND					
 <p style="text-align: center;">North</p> <p>Depth = <u>6</u> ft.</p> <p>Volume = _____ cu.yd.</p>	BOULDER COUNT		PROPORTIONS USED		ABBREVIATIONS	EXCAVATION EFFORT
	Size Range	Letter Designation	TRACE (TR)	0-10%	F - Fine	E - Easy
Classification		LITTLE (LI)	10-20%	M - Medium	M - Moderate	
6" - 18"	A	SOME (SO)	20-35%	C - Coarse	D - Difficult	
18" - 36"	B	AND	35-50%	F/M - Fine to Medium		
36" and Larger	C			F/C - Fine to Coarse		
				V - Very		
				GR - Gray		
				BN - Brown		
				YEL - Yellow		
					GROUNDWATER	
					Elapsed Time to Reading (hours)	
						
					G.W.L.	