Preliminary Geotechnical Interpretive Report for

Nevele Redevelopment

Town of Wawarsing
Ulster County, New York

February 6, 2014

THE Chazen COMPANIES®
Proud to be Employee Owned
Engineers
Environmental Professionals
Land Surveyors
Landscape Architects
Planners

Prepared for:

Mr. Michael Treanor
Nevele Investors, LLC
P.O. Box 388
Ellenville, NY 12428

©2014 The Chazen Companies

Preliminary Geotechnical Interpretive Report for

Nevele Redevelopment

Town of Wawarsing
Ulster County, New York

February 6, 2014

THE Chazen COMPANIES®
Proud to be Employee Owned

Engineers
Land Surveyors
Planners
Environmental Professionals
Landscape Architects

Prepared by:
Chazen Engineering, Land Surveying & Landscape Architecture Co., D.P.C.
547 River Street
Troy, New York 12180
(518) 273-0055

Hudson Valley Office *(845) 454-3980*

North Country Office *(518) 812-0513*

ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS DRAWING OR DOCUMENT, OR ANY PORTION THEREOF, WITHOUT THE EXPRESS WRITTEN PERMISSION OF CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C. IS PROHIBITED. THIS DRAWING OR DOCUMENT IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT, APPLICATION AND SITUATION FOR WHICH IT WAS INTENDED. ANY MODIFICATION OF THIS DRAWING OR DOCUMENT, OR ANY USE FOR ANY PROJECT, APPLICATION OR SITUATION OTHER THAN THAT FOR WHICH IT WAS INTENDED, WILL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY TO CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C.
IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON TO ALTER THIS DRAWING OR DOCUMENT IN ANY WAY, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED DESIGN PROFESSIONAL (PROFESSIONAL ENGINEER, LAND SURVEYOR, ARCHITECT OR LANDSCAPE ARCHITECT). IF THIS DRAWING OR DOCUMENT IS ALTERED, THE ALTERING DESIGN PROFESSIONAL SHALL AFFIX TO THE DRAWING OR DOCUMENT HIS OR HER SEAL, THE NOTATION "ALTERED BY" FOLLOWED BY HIS OR HER SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 1
2.0 PHYSICAL SETTING 1
3.0 SUBSURFACE EXPLORATIONS 2
3.1 Test Boring Explorations 2
3.2 Subsurface Stratigraphy 3
3.3 Groundwater Conditions 3
3.4 Site Seismic Characterizations 4
4.0 RECOMMENDATIONS 4
4.1 Structures 5
4.1.1 Structure Foundations 5
4.1.2 Ground Floor Slabs 6
4.2 Foundation Walls 6
4.3 Pavement Recommendations 7
4.4 Utilities 8
4.5 Fill Materials 9
4.5.1 Crushed Stone 9
4.5.2 Structural Fill 9
4.5.3 Pipe Bedding Fill 10
4.5.4 Common Fill 10
4.5.5 On-Site Soils 10
5.0 OTHER CONSIDERATIONS 10
5.1 Site Preparation 10
5.2 Excavation 11
5.3 Control of Water 11
5.4 Earthwork Special Inspections 12
6.0 CLOSURE 12

LIST OF FIGURES

Figure 1 Exploration Location Plan

LIST OF APPENDICES

Appendix A Exploration Logs
Appendix B Laboratory Results

1.0 EXECUTIVE SUMMARY

The Chazen Companies (Chazen) was retained by Nevele Investors, LLC to prepare a preliminary geotechnical interpretive report. This report discusses our investigation, analyses and recommendations relative to the parameters in support of preliminary foundation design and construction for redevelopment at the abandoned Nevele Casino and Resort in the Town of Wawarsing, Ulster County, New York, just south of the Village of Ellenville (hereinafter referred to as the "project site"). The planned redevelopment will generally consist of a 2-story casino, three 4-story hotels, a 2-story golf clubhouse and restaurant, a 7-story parking structure with a roof and a central utility plant.

The investigation included forty five test boring explorations performed between December 9, 2013 and December 27, 2013 to obtain representative subsurface information. Subsurface stratigraphy across the proposed redevelopment area consists of Glacial Deposits. Groundwater was observed between 3 and 25 feet below existing grade across the redevelopment area.

Based on the findings from the subsurface explorations, preliminary analysis and interpretation, and a review of the elevations and concept plan provided by Peter B. Wilday Architect, Ltd dated January 10, 2014, shallow foundation systems are recommended to support the proposed structures. A preliminary allowable bearing capacity of 2 kips per square foot (ksf), subject to the requirements of this report, may be used in the design of the proposed foundation systems. Based on existing site conditions and the concept plan, the Site Class for the project site is "D".

To advance final foundation design recommendations, we recommend that the structural engineer of record provide a preliminary foundation plan with anticipated loading to support a supplemental subsurface program for data collection and select material testing. The investigation will be used to obtain undisturbed soils samples, which are required in order to analyze and assess the rate at which consolidation will occur. Upon completion of the laboratory tests, we will provide an estimated total amount of settlement to be expected under final design conditions. If the calculated settlement values exceed those allowed by design codes, as a matter of good practice, Chazen may recommend soil improvement measures.

Provided the preliminary geotechnical recommendations and construction considerations outlined in this report are incorporated into the design and adhered to during construction activities, the project site is considered suitable for the proposed development.

2.0 PHYSICAL SETTING

The proposed project site is part of an approximately 564(±) acre site of primarily undeveloped land. The developed area of the project site includes approximately 20 acres of roads, buildings, and other paved surfaces from previous uses, and 111 acres for an existing golf course. Wetlands and water surface areas, including a pond and a number of streams are located throughout the project site. The remaining 402 acres are considered forest or meadow.

The proposed redevelopment area of the project site, hereinafter referred to as the "subject area" includes the approximately 20 (±) acres of structures that were previously operated as the Nevele

Grande Hotel (up until 2009) located at 1100 Arrowhead Road in the Town of Wawarsing in Ulster County, New York.

The project site is adjacent to Honor's Haven Resort and Spa (to the north). The project site is at the foothills of the Catskill Mountains to the west, the Shawangunk Mountains to the east, and near Sam's Point Preserve and Minnewaska State Park Preserve. Existing subject area conditions are depicted in Figure 1, Exploration Location Plan.

Elevations noted herein are based on aerial mapping provided by the Owner and test boring elevations surveyed by Chazen utilizing the North American Vertical Datum of 1988 (NAVD 88) in December 2013. Topographical elevations obtained from aerial photography were lowered approximately 2 feet to coincide with Chazen control elevations.

3.0 SUBSURFACE EXPLORATIONS

This section summarizes the results of the subsurface explorations performed at the subject area by Chazen between December 9, 2013 and December 27, 2013 within the areas of proposed redevelopment.

3.1 Test Boring Explorations

Chazen conducted subsurface explorations to characterize the in situ conditions and to collect representative soil samples. Samples were used for both visual classification and laboratory testing as a basis for determining design criteria cited in this report. Forty-five test boring explorations designated B1 through B46 were performed within the subject area, B43 was not performed. In addition, observation wells were installed at test boring locations B5, B18, and B40. The explorations were performed to obtain subsurface information at specific points based on the conceptual plan provided by Peter B. Wilday Architect, Ltd.

Test boring explorations were performed between December 9, 2013 and December 27, 2013 by Aquifer Drilling and Testing, Inc. of Waterford, New York utilizing a CME 55 LC track mounted drill rig and a Mobile B61 truck mounted drill rig, each capable of spinning 4¼ inch inner diameter (I.D.) hollow stem augers. Test boring explorations were advanced to a maximum depth of 99 feet below existing site grades. Soil samples were collected from test boring explorations at approximately 5 feet intervals, unless indicated otherwise on the exploration logs.

Explorations were monitored by a Chazen representative to advise the driller regarding location and depth of the test explorations, to record activities, and to modify the subsurface investigation as necessary. Measurements were taken by Chazen personnel to document the actual location of each exploration as shown on Figure 1, Exploration Location Plan. During soil sample collection, a 2-inch split spoon sampler was driven approximately 2 feet and the number of blows required to drive the sampler every 6 inches were recorded in accordance with ASTM D 1586 to measure the resistance of the soil to penetration of the sampler. Soil samples collected during the subsurface explorations were visually assessed in the field to classify the samples to the extent practicable in accordance with the Unified Soil Classification System (USCS) and ASTM D 2488.

Test boring logs detailing the explorations were prepared by Chazen to document subsurface conditions at the subject area and are included in Appendix A: Exploration Logs.

Representative soil samples were selected for geotechnical laboratory testing. The samples were delivered to Atlantic Testing Laboratories in Clifton Park, New York for basic classification testing to validate field classifications. Field classifications were revised as necessary based on the laboratory results. The following laboratory tests were conducted and the results are provided in Appendix B: Laboratory Results:

- Natural Moisture Content tests (5 tests).
- Liquid and Plastic (Atterberg) Limits tests (7 tests).
- Particle Size Analysis test with hydrometers (7 tests).
- Particle Size Distribution using Sieve Analysis tests (9 tests).

3.2 Subsurface Stratigraphy

Explorations indicate that one stratum (Glacial Deposits) was observed from the existing ground surface to depths up to 99 feet (maximum boring depth) in all explorations at the subject area. The glacial deposits stratum consisted of two distinct substrata and the approximate interface between these is designated on the exploration logs. Per the New York State Surficial Geology maps and USDA Soil Survey map of Ulster County, the glacial deposits are specially classified as being glaciolacustrine (from lake deposits). The substrata observed were visually classified as follows.

- Silty Sand (SM) consists of moist, brown to grey sand with some to a little percentage of silt, a little to a trace percentage of gravel, and a few percentage of clay.
- Silt (ML) consists of moist to wet, brown to grey silt, some to a few percentage of clay, a little to a few percentage of sand and a few to a trace percentage of gravel. A few of the conducted Atterberg Limits test identified layers of this material as Silty Clay with low plasticity (CL-ML).

Per the USDA soils maps of Ulster County, the land has previously been cut and filled. The soil within the top 10 feet around the existing structures was typically observed to be relocated on-site glacial deposits with frequent cobbles and boulders as indicated on the exploration logs. Varying quantities of cobbles and/or boulders may be present within the soils encountered at the subject area when earthwork activities are performed.

3.3 Groundwater Conditions

Groundwater was observed at various depths across the subject area. Readings were typically conducted 24 hours after termination of each exploration and are considered stabilized readings. Groundwater levels recorded on the exploration logs are based on field observations and visual assessment and classification of the soil samples. Generally, the observed groundwater decreased from northeast to southwest (towards the lake) across the subject area. Groundwater levels will most likely fluctuate with season, precipitation, nearby construction activity, and other factors.

The following is summary table of the observed groundwater levels and explorations performed within the vicinity of each proposed structure based on the referenced conceptual plan.

Structure	Explorations within Vicinity	Depths to Groundwater (ft)	Approximate Groundwater Elevations (ft)
7-Story Parking Structure	B9 – B13, B17, B18 & B24	5 to 16	354 to 340 (354-349 typically)
Hotel 1	B3 , B4, & B5	6 to 8	334 to 328
Hotel 2	B33	10	328
Hotel 3	B38 & B39	5 and 10	337 & 334
Casino	B14-B16, B19-B23, B28-B31 & B34	3.5 to 25	367 to 337 (356-359 typically)
Golf Clubhouse and Restaurant	B6 & B7	10	320 & 323
Central Utility Plant	B12, B17 & B18	13 to 12	354 to 352

3.4 Site Seismic Characterizations

Based on accepted procedures to determine liquefaction potential at the subject area, soils are judged as not susceptible to liquefaction when examined under the following conditions: USGS published peak ground acceleration (0.12 g) for 2% probability of exceedance over 50 years, a maximum earthquake magnitude of 5, site-recorded standard blow count values, groundwater depth determined in the field, and percentage of fines observed within the underlying soils.

The soils across the subject area have been characterized for seismic conditions in accordance with Section 1613 of the 2010 Building Code of New York State (2010 BCNYS). Based on the provided conceptual plan, the subsurface conditions observed, and our analysis and interpretation, Chazen recommends using a Site Class of D, a S_{DS} of 0.253 and a S_{D1} of 0.102.

4.0 RECOMMENDATIONS

This section presents our preliminary geotechnical recommendations for foundation design and construction of the proposed structures. Our preliminary recommendations are based on the subsurface investigation completed, our analysis, and interpretation of the data obtained. Our preliminary recommendations are in accordance with related provisions of the 2010 BCNYS. At the time of this report and based on the conceptual plan, we understand that the structures will be constructed with finished floor elevations (FFE's) as follows:

- Parking Structure (7-story), lowest FFE = El. 358 ft (±)
- Hotels 1, 2 and 3 (4-story each)
    - Walkout lower FFE = El. 333 ft (±)

  - 1st floor walkout = El. 349 ft (±)
- Casino:
  - Eastern Half FFE = El. 370 ft (±)
  - Western Half lowest FFE = El. 353 ft (±)
- Golf Clubhouse and Restaurant FFE = El. 333 ft (±)
- Central Plant FFE = El. 363

4.1 Structures

4.1.1 Structure Foundations

Based on the observed subsurface conditions, the proposed locations of the structures, and the aforementioned finished floor elevations, shallow reinforced concrete foundations are suitable alternatives to support the proposed structures. The type of shallow foundation (i.e. mat slab or continuous strip footings with isolated spread footings) will depend on the proposed foundation configuration, loading and sensitivity of the building structure. At this time Chazen recommends that a mat foundation is utilized in the design of the proposed structures (i.e. Parking Structure, Hotels, Casino and Central utility Plat). The golf clubhouse and restaurant and other small ancillary buildings should be founded on continuous strip footings with isolated spread footings where required.

At this time, Chazen recommends stone relief columns/wells around the perimeter of the mat foundations due to the high groundwater conditions, which has the potential of becoming higher under certain natural conditions and subsurface soil conditions (silt). The actual size, spacing/configuration, depth, and shape will be advanced once the sizes of foundations have been determined. Typically, stone relief layers for mat foundations trace the geometry of the foundation with a width in the range of 3 to 5 feet and are extended to the same depth as the bottom of foundations.

All foundations should bear at or below frost depth. Frost depth is estimated to be 4 feet below the lowest adjacent ground surface exposed to freezing. Spread footings located beneath continuously heated interior spaces and not exposed to freezing temperatures during construction should bear at least 18 inches below the top of the soil supported slab.

Based on the conceptual grading plan and to minimize potential differential settlement, Chazen recommends that all shallow foundations be founded on a minimum of 12 inches of Structural Fill.

During our preliminary investigation, a deep deposit of medium stiff to stiff, low plasticity silt was encountered under the entire subject area. At this time, Chazen cannot determine the potential total settlement when the subsurface soils are subject to additional loads. Silt is a difficult material to estimate its soil properties, as it exhibits properties similar to those of cohesive as well as non-cohesive materials. Typically, silt is mainly a cohesive material and will consolidate slowly over a long time similar to clay.

Chazen recommends that an additional drilling program be performed to obtain three representative undisturbed samples. The undisturbed samples will be sent to a laboratory to have the results of both the unconfined compression shear strength tests and one dimensional consolidation tests. These additional tests are required in order to analyze and assess the rate at which consolidation will occur and to estimate the total amount of settlement to be expected under final design conditions. If the

calculated settlement values exceed those allowed by design codes, as a matter of good practice, Chazen may recommend soil improvement measures.

In order to provide final bearing capacity data, Chazen will perform final settlement calculations after we have received the design loads for each structure and obtained the additional laboratory results (from the additional drilling program recommended above). Chazen suggests a preliminary allowable bearing capacity of 2 ksf for use in the design of the shallow foundations.

All bearing surfaces must be protected from freezing during construction. Care should be taken not to disturb soils at the bearing surface or within the zone of influence of any existing or future foundations. The "zone of influence" is defined as a line drawn outward and downward from the lower edge of the footing at a 1 Horizontal: 1 Vertical (1H: 1V) slope. Exposed soil subgrades should be lightly compacted (proofrolled) prior to placement of Structural fill and/or foundation elements using appropriate construction equipment in large, accessible excavations and hand-guided compaction equipment in smaller excavations where access is limited. All unsuitable soils and disturbed soils should be excavated and replaced with compacted structural fill.

4.1.2 Ground Floor Slabs

While preparing the slab subgrade, we recommend utilizing an allowable bearing capacity of 2 ksf for the ground/soil supported slabs. All unsuitable materials should be over excavated 12 inches and replaced with compacted structural fill. At least 4-inches of gravel or crushed stone containing less than 10 percent of material that passes through a No. 4 sieve should be placed over the prepared subgrade for the slab to bear on.

If a moisture sensitive application is proposed or could occur in the future; a vapor barrier, placed between the slab and the compacted stone fill will be required. Additionally, due to the high groundwater table under the three hotels, and western half of the Casino, we recommend that a drainage system under the slab be incorporated into the design. In such a case, the sub-slab drainage system will need to be connected to an approved drainage system.

Design and construction of the slab should take into account potential differential shrinkage between the top and bottom surfaces of the slab that could result in curling. A coefficient of friction of 0.20 is recommended for use between the slab and vapor barrier and 0.40 for concrete cast directly against proofrolled in situ or compacted gravel or crushed stone (stone fill).

4.2 Foundation Walls

Locations where below grade foundation walls are utilized at the subject area, we recommend using the following equivalent fluid pressure values to model lateral earth pressures. These values assume a level back slope and no hydrostatic pressures (drained conditions) is present, a drainage fill material with an internal friction angle for backfill soil of 34°, and a unit weight of soil of 115 pcf:

Lateral Earth Pressure Type	Equivalent Fluid Pressure
At rest – Static, (*Restrained condition at top of wall*)	51 psf/ft
Active (*Wall allows for deflection at top*)	33 psf/ft
Passive (1/2 of calculated value*)	203 psf/ft
Active with Seismic (*PGA, 2% PE in 50 years*)	43 psf/ft

*The full amount of passive resistance is often not incorporated into design as a provision for an additional factor of safety and for other reasons including the large amount of movement required to mobilize passive resistance and for the potential of future removal of soil. The amount of passive resistance used in the design of the wall shall be determined by the structural engineer of record.

Equivalent fluid pressures stated herein do not include safety factors. When recommended equivalent fluid pressures are utilized, appropriate factors of safety as recommended by the design codes for sliding, overturning and bearing capacity should be applied to the final design.

We recommend installation of drainage fill or drainage board connected to a subsurface drainage system against all foundation walls to relieve hydrostatic pressures. If hydrostatic pressures are not relived, these walls would experience hydrostatic pressures and should be designed for such a case (not provided in the above table).

In accordance with the BCNYS, Section 1807, walls or portions thereof that retain earth, enclose interior spaces and would be detrimental to the building occupancy shall be waterproof and/or damp proofed.

4.3 Pavement Recommendations

Chazen recommends use of a flexible pavement system incorporating an asphalt surface, binder course and subbase course for all roadways and/or parking areas founded on in situ soils after removal of all loose, disturbed or unsuitable soils. In order to develop the pavement section recommendation, we made the following preliminary design/loading assumptions pertaining to the anticipated future traffic at the subject area:

1. Daily vehicular traffic equal to the following;
    a. Tour Bus: 64 trips/day with a 30,000 lb, 2 axles, 6 tire vehicle.
    b. Shuttle Bus: 144 trips/day with a 15,000 lb, 2 axles, 6 tire vehicle.
    c. Armored Truck: 1 trip/day with a 30,000 lb, 2 axles, 6 tire vehicle.
    d. Fire Truck: 1 trip/week with a 48,000 lb, 3 axles, 10 tire vehicle.
    e. Dump Truck: 3 trips/week with a 70,000 lb, 2 axles, 6 tire vehicle.
    f. Tractor Trailer (1): 1 trips/day with a 35,000 lb, 3 axles, 10 tire vehicle.
    g. Tractor Trailer (2): 3 trips/week with a 40,000 lb, 4 axles, 12 tire vehicle.
    h. Minor loading from cars and light weight trucks/SUV were ignored.

2. A design life of 20-years.
3. A subgrade California Bearing Ratio (CBR) value of 8 (silt material).

Based on these daily vehicular traffic assumptions, which must be validated by a transportation engineer prior to implementation and using reduced subgrade strength due to frost conditions, we recommend the following minimum pavement sections:

Pavement Course	Thickness (inches)	NYSDOT Specification
Heavy Duty Asphalt Pavement (Flexible)		
Top	2	Type 6F Top, Section 403.17
Binder	4	Type 3 Binder, Section 403.13
Sub-base	16	Type 2, Section 304

In addition, we recommend the use of a non-woven, separation geotextile fabric, located between prepared subgrade and subbase course. The properly prepared pavement subgrade should be sloped towards the pavement edges to prevent water from ponding below the pavement. Further, depending on finished subgrade elevations, pavement underdrains with positive drainage may be appropriate where final subgrade elevations are within 2-feet of groundwater elevations.

At all loading dock areas because of stationary loading, Chazen recommends the use of a rigid pavement system. Once design loads are known, a final design can be provided. The following parameters should be used while advancing the design.

1. The rigid pavement section at a minimum should consist of 6 inches Portland concrete over 12 inches of Type 2 sub-base. The concrete should be reinforced for design loads and crack control.
2. The slab should be designed using a k-value of 200 pci.
3. In accordance with ACI durability requirements a concrete 28-day compressive strength of at least 4,500 psi should be used.
4. Where additional corrosion resistance is required, a higher concrete compressive strength and/or epoxy coated reinforcement are recommended.
5. Control joints and spacing shall be designed in accordance with ACI 360.

4.4 Utilities

In general, utility trenches and established trench invert elevations should be located outside the “zone of influence” of foundation elements. Trench excavation widths should extend a minimum of 12 inches beyond the outer edges of the utility elements to be installed. Exposed subgrades should be lightly compacted (proofrolled) and then backfilled pipe bedding fill extending 6 inches (minimum) below and above each utility. When utilities are located in trenches below building slabs and/or pavements, trenches should be backfilled above this point with compacted structural fill up to the proposed subgrade located beneath the building slab or pavement section. In landscaped areas, utility trenches above this point may be backfilled with compacted common fill. Installation of visible markers at the surface and an underground trace line are recommended along the utility line to facilitate location in the future.

4.5 Fill Materials

Fill materials shall be free of unsuitable material such as organics, construction debris, cobbles/boulders, frozen material, etc. Fill areas shall be cleared of all vegetation, roots, and other organic materials prior to placement of fill. Stockpiled soils may require installation of run-off protection between drainage channels and the stockpile. Stockpiles of fill materials should be maintained to prevent material from fluctuating from the optimum moisture content, freezing, separating due to migration of fine grained soils, and collection of snow or ice within the stockpiles.

Compaction should consist of at least 4 systematic passes using a vibratory roller. In confined areas, hand guided vibratory equipment shall be utilized to compact the soil to the specified criteria. If soil weaving or other disturbance is noticed during compaction, vibratory compaction should be discontinued. Heavy compaction equipment shall not be utilized within 3 feet of foundation walls. Compaction shall meet the requirements stated below or as approved by a qualified engineer.

4.5.1 Crushed Stone

Crushed stone shall be clean, durable, sharp angled fragments of rock of uniform quality, with less than 2% passing the #200 sieve, such as NYSDOT Type 2 crushed stone. The material should be placed in loose lifts not to exceed 8 inches in thickness for heavy compaction equipment and 6 inches for lighter compaction equipment. The material should be compacted to 95% of maximum dry density as defined by ASTM D 1557.

When used as a drainage medium along foundation walls, the material should be clean and uniformly graded. Prior to placement, we recommend installing a non-woven filter fabric on the prepared subgrade to prevent the migration of fines into the stone void space. The fabric should be selected based on the gradation of the surrounding soils. Crushed stone should not be used against damp-proof foundation walls unless a protective barrier is used to prevent direct contact between the stone and the damp-proofing material.

4.5.2 Structural Fill

Clean, granular, structural fill meeting the following suggested gradation should be placed in lifts not exceeding 8 inches loose measure and compacted to 95% of maximum dry density as defined by ASTM D 1557. Structural fill materials should be adjusted to within +2% and -1% of optimum moisture content to facilitate proper compaction. Structural fill is recommended for backfill within the footprint of the building and above utilities within the “zone of influence”.

Sieve Size	Percent Passing by Weight
3 inch	100
½ inch	50-85
No. 4	30-75
No. 40	10-25
No. 200	0-8

4.5.3 Pipe Bedding Fill

Bedding fill (e.g. pipe zone bedding and backfill) should be provided and compacted as recommended by the pipe manufacturer for backfill around utilities. If the manufacturer does not provide recommendations for pipe bedding material, a clean, granular, bedding fill meeting the following suggested gradation should be placed in lifts not exceeding 8 inches loose measure and compacted to 92% of maximum dry density as defined by ASTM D 1557.

Sieve Size	Percent Passing by Weight
¾ inch	100
No. 40	0-70
No. 200	0-10

4.5.4 Common Fill

Common fill similar to NYSDOT Select Fill should consist of inorganic, sand based, granular soils, free of debris and other deleterious material that meet the following gradation requirements:

Sieve Size	Percent Passing by Weight
4 inch	100
No. 40	0-70
No. 200	0-15

Common fill used for site grading and landscaping should be placed in lifts not exceeding 9 inches loose measure and compacted to 90% of the maximum dry density as determined by ASTM D 1557. All fill should be placed to promote positive drainage away from the structure. Common fill can also be used as fill above utilities located beneath the building footprint, up to a maximum of 18 inches below the finished floor elevation, except at specific load bearing locations where structural fill shall be used.

4.5.5 On-Site Soils

On-site soils are deemed not suitable for use as structural fill as described above due to the percentage of fine grained material and/or the percentage of cobbles and boulders. Although these soils can be stockpiled and reused in landscape areas as common fill if screened to remove any 4 inch or greater particles, Chazen does not recommend its reuse due to the high percentage of fine grained soil and construction difficultly associated with achieving compaction criteria of silty soils.

5.0 OTHER CONSIDERATIONS

This section presents our preliminary construction considerations to address excavation and groundwater conditions.

5.1 Site Preparation

After completion of site demolition, clearing, grubbing, and mass regrading activities within the subject area, the area should be restored to an acceptable baseline condition. We recommend proofrolling disturbed natural soils left in-place after excavation activities are complete. However, if during

foundation preparation, subgrade materials are determined to be unsatisfactory (i.e. topsoil, pumping, weaving, frozen, organics or cobbles/boulders are present) by the special inspector, the area should be overexcavated by 12 inches minimum and backfilled with placed and compacted structural fill to achieve a proper bearing area as previously indicated.

5.2 Excavation

We anticipate that excavation of the on-site soils can be accomplished using conventional earthwork equipment and techniques (i.e. backhoes, scrapers, excavators, or dozers) based on the physical characteristics, relative density of the strata observed and the anticipated excavation limits.

Generally, all temporary cut slope excavations should not be left open or unbraced for extended periods of time. Temporary cuts should be sloped as required for stability in accordance with OSHA regulations and protected from erosion. OSHA requires each type of material be benched at the following slope for temporary excavations:

- Type “A” – 3/4 Horizontal: 1 Vertical (3/4H: 1V),
- Type “B” – 1 Horizontal: 1 Vertical (1H: 1V), and
- Type “C” – 1-1/2 Horizontal: 1 Vertical (1-1/2H: 1V).

Based on the subsurface explorations, on-site soils are to be considered OSHA Type “C”. However, this should be verified for each excavation by qualified site personnel.

5.3 Control of Water

Groundwater was observed near proposed finished floor elevations as indicated in previous sections. Based on the proposed bottom of footing elevations throughout the subject area, groundwater seepage into open excavations is anticipated. Temporary dewatering measures (e.g., sumps, barriers) should be readily available during construction to maintain groundwater levels at a minimum of 12-inches below bearing elevations.

Surface water must also be controlled during foundation construction and earthwork operations by using temporary swales, ditches or other means necessary to prevent runoff into open excavations and to maintain a dry excavation for foundation construction.

Upon completion of rough grading activities, the final grade should be set to promote positive drainage away from buildings. Topsoil with more than 20% fines will limit infiltration of surface water into the subgrade.

Based on the proposed finished floor elevation and measured groundwater elevations, Chazen recommends the installation of drainage systems to minimize the potential for water saturating the subbase which decreases the bearing strength of the soil layer. Drainage systems will provide avenues for water to travel around or through subgrades/subbase of the buildings and/or roadway sections. Additional drainage pipes should be incorporated into the design around proposed elevator pit locations.

It is our recommendation that the finished floors be set at the highest practical elevations to maximize the effectiveness of subsurface drainage systems.

5.4 Earthwork Special Inspections

In accordance with the 2010 BCNYS, Section 1704.7, the Owner shall employ a Special Inspector to provide special inspections and verification of existing site soil conditions, fill placement, and load-bearing capacity at each structure as outlined in Table 1704.7 *Required Verification and Inspection of Soils*. During fill placement, the Special Inspector shall determine that proper materials and procedures are used in accordance with the provisions of this geotechnical report.

6.0 CLOSURE

This report and the preliminary recommendations contained herein have been prepared for the exclusive use of the Nevele Investors, LLC and their representatives for specific application to the design and construction of the proposed redevelopment at the Nevele Grand Hotel and resort in the Town of Wawarsing, Ulster County, New York.

This report was prepared in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made. The analysis, interpretations and preliminary recommendations submitted in this report are based in part upon the data obtained from subsurface explorations available at the time of this investigation. The nature and extent of variations between these exploration locations may not become evident until construction. If significant variations appear, it may be necessary to reevaluate the recommendations cited in this report.

We recommend retaining Chazen to revisit our preliminary foundation recommendations and to calculate the potential settlement once design loads of each structure have been determined and to provide bearing capacities.

Please feel free to contact Chazen at (518) 273-0055 if you have any questions. Chazen looks forward to working with you on this project.

Sincerely,

Matthew A. Korn, EIT
Project Geotechnical Engineer

Reviewed and approved by;

STATE OF NEW YORK
JOSEPH MARTIN LANARO
070126
LICENSED PROFESSIONAL ENGINEER

Joseph M. Lanaro, P.E.
Principal
Vice President of Engineering Services

Figure 1:

Exploration Location Plan

LEGEND:

B1 — TEST BORING EXPLORATION

B5 — TEST BORING EXPLORATION AND OBSERVATION WELL

NOTES:

1. TEST BORING LOCATIONS SHOWN HEREON WERE PERFORMED BY THE CHAZEN COMPANIES BETWEEN DECEMBER 9, 2013 AND DECEMBER 27, 2013.
2. TEST BORING ELEVATIONS SHOWN HEREON ARE BASED ON A FIELD SURVEY PERFORMED BY CHAZEN ENGINEERING, LAND SURVEYING AND LANDSCAPE ARCHITECTURE CO. D.P.C. ON DECEMBER 5, 2013.
3. TEST BORING ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88) AS ESTABLISHED BY O.P.U.S. SOLUTION DATED SEPTEMBER 25, 2012 FROM CHAZEN ON SITE GPS STATIC OBSERVATIONS.
4. TOPOGRAPHY SHOWN HEREON IS BASED ON 1997 AERIAL MAPPING PROVIDED BY CLIENT. PLEASE NOTE THE ELEVATIONS OF THE AERIAL TOPOGRAPHY WERE LOWERED 2.00 FT TO BEST MATCH CHAZEN CONTROL ELEVATIONS.

0 1 2 3
ORIGINAL SCALE IN INCHES

ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS DRAWING OR DOCUMENT, OR ANY PORTION THEREOF, WITHOUT THE EXPRESS WRITTEN PERMISSION OF CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C. IS PROHIBITED. THIS DRAWING OR DOCUMENT IS NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT, APPLICATION AND SITUATION FOR WHICH IT WAS INTENDED. ANY MODIFICATION OF THIS DRAWING OR DOCUMENT, OR ANY USE FOR ANY PROJECT, APPLICATION OR SITUATION OTHER THAN THAT FOR WHICH IT WAS INTENDED, WILL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY TO CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C.

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON TO ALTER THIS DRAWING OR DOCUMENT IN ANY WAY, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED DESIGN PROFESSIONAL (PROFESSIONAL ENGINEER, LAND SURVEYOR, ARCHITECT OR LANDSCAPE ARCHITECT). IF THIS DRAWING OR DOCUMENT IS ALTERED, THE ALTERING DESIGN PROFESSIONAL SHALL AFFIX TO THE DRAWING OR DOCUMENT HIS OR HER SEAL. THE NOTATION "ALTERED BY" FOLLOWED BY HIS OR HER SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

THE Chazen COMPANIES®
Engineers/Surveyors
Planners
Environmental Scientists
Landscape Architects

CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C.

Office Locations:

Dutchess County Office:
21 Fox Street
Poughkeepsie, New York 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street
Troy, New York 12180
Phone: (518) 273-0055

North Country Office:
375 Bay Road
Queensbury, New York 12804
Phone: (518) 812-0513

rev.	date	description

NEVELE REDEVERLOPMENT

EXPLORATION LOCATION PLAN

TOWN OF WAWARSING, ULSTER COUNTY, NEW YORK

designed	checked
CCW	JML
date 1/31/14	scale 1" = 100'
project no. 31225.00	
sheet no. FIG1	

Drawing Name: S:\31\31200-31299\31225_00\ENG\DWG\50_FIG1_31225-00_BORING.dwg
Xref's Attached: XPARCELS_31225-00; XBASE_31225-00_AERIAL Co; XBASE_31225-00_ALTA SURVEY; XBASE_31225-00_CHAZEN; XTB_31225-00_24x36; XLAYOUT_31225-00_CHAZEN; XBASE_SVY_31225-00
Date Printed: Feb 04, 2014, 8:55am

Appendix A:
Exploration Log

INTERPRETATION OF SUBSURFACE LOGS

The Exploration Logs present observations and the results of tests performed in the field by the Driller, Technician, Geologists, and Geotechnical Engineers as noted. Soil/Rock classifications are made visually and modified accordingly based on laboratory results. The classification of soils or soil like material is subject to limitations imposed by the size of the sampler, the size of the sample and its degree of disturbance and moisture.

The following defines some of the terms utilized in the preparation of the Subsurface Logs.

SOIL CLASSIFICATIONS

Soil classifications are visual descriptions on the basis of the United Soil Classification ASTM D-2488. The soil density or consistency is based on the penetration resistance determined by ASTM D 1586. Soil Moisture of the recovered materials is described as DRY, MOIST, or WET.

SIZE DESCRIPTION		RELATIVE DENSITY/CONSISTENCY (BASIS ASTM D1586)			
Soil Type	Particle Size	Granular Soil		Cohesive Soil	
Boulder	>12”	Density	Blows/FT	Consistency	Blows/FT
Cobble	3”- 12”	Very Loose	< 4	Very Soft	< 2
Gravel-Coarse	3” – ¾”	Loose	5 – 10	Soft	2 - 5
Gravel-Fine	¾” - #4	Medium Dense	11 – 30	Medium Stiff	6 – 10
Sand-Coarse	#4 - #10	Dense	31- 50	Stiff	10 – 20
Sand-Medium	#10 - #40	Very Dense	50+	Very Stiff	20 – 30
Sand-Fine	#40 - #200			Hard	>30
Silt/NonPlastic	< #200				
Clay/Plastic	< #200				

SOIL STRUCTURE		RELATIVE PROPORTION OF SOIL TYPES	
Structure	Description	Description	% of Sample by Weight
Layer	6” Thick or Greater	Mostly	50 – 100
Seam	6” Thick or Less	Some	30 – 45
Parting	Less than ¼” thick	Little	15 – 25
Varved	Uniform horizontal partings or seams	Few	5 – 10
		Trace	Less than 5

Additional Notes:
1. Utilized c: coarse, m: medium, and f: fine when describing the size of sand or gravel.
2. WH – weight of hammer.
3. WR – weight of rods.
4. bgs – below ground surface
5. NA – Not Available
6. ▼ – Phreatic Surface, if observed

Refusal:
1. Split-spoon refusal is considered 50 blows over six inches.
2. Auger refusal occurs if the driller is unable to advance the boring.
3. Roller bit refusal occurs if the bit is worn and needs to be replaced or the bedrock is a dense very hard material.

TABLE 1 - Summary of Test Boring Explorations

Exploration Number	Date Drilled	Depth (feet)		Elevation (feet, msl)		
		Total Depth	Observed Water Level	Ground Surface	Bottom of Exploration	Observed Water Level
B1	9-Dec-13	40.0	7.5	327	287	319
B2	12-Dec-13	40.0	11.0	337	297	326
B3	12-Dec-13	24.0	6.0	337	313	331
B4	13-Dec-13	40.0	6.0	340	300	334
B5	16-Dec-13	42.0	8.0	336	294	328
B6	13-Dec-13	20.0	10.0	330	310	320
B7	13-Dec-13	20.0	10.0	333	313	323
B8	10-Dec-13	99.0	5.0	356	257	351
B9	26-Dec-13	42.0	16.0	356	314	340
B10	9-Dec-13	4.0	NA	357	353	NA
B11	12-Dec-13	40.0	11.0	360	320	349
B12	12-Dec-13	42.0	13.0	365	323	352
B13	9-Dec-13	40.0	11.0	361	321	350
B14	26-Dec-13	42.0	18.0	359	317	341
B15	12-Dec-13	7.5	NA	359	351	NA
B16	9-Dec-13	9.0	NA	364	355	NA
B17	16-Dec-13	8.0	NA	368	360	NA
B18	19-Dec-13	17.0	12.0	366	349	354
B19	17-Dec-13	40.0	18.0	355	315	337
B20	19-Dec-13	40.0	3.5	362	322	359
B21	16-Dec-13	42.0	10.5	367	325	356
B22	16-Dec-13	42.0	12.0	368	326	356
B23	16-Dec-13	40.0	25.0	369	329	344
B24	18-Dec-13	22.0	16.0	369	347	353
B25	19-Dec-13	22.0	13.0	365	343	352
B26	9-Dec-13	7.0	NA	366	359	NA
B27	20-Dec-13	22.0	18.0	368	346	350
B28	17-Dec-13	15.8	7.0	358	342	351
B29	13-Dec-13	40.0	11.0	370	330	359
B30	13-Dec-13	28.0	20.0	378	350	358
B31	26-Dec-13	42.0	5.0	372	330	367
B32	19-Dec-13	22.0	18.5	367	345	349
B33	18-Dec-13	40.0	10.0	338	298	328
B34	17-Dec-13	40.0	20.0	362	322	342
B35	17-Dec-13	99.0	22.0	379	280	357
B36	27-Dec-13	20.0	7.0	370	350	363
B37	27-Dec-13	20.0	NA	379	359	NA
B38	20-Dec-13	40.0	5.0	342	302	337
B39	26-Dec-13	42.0	10.0	344	302	334
B40	20-Dec-13	46.3	6.0	355	309	349
B41	27-Dec-13	42.0	8.0	369	327	361
B42	9-Dec-13	8.0	NA	380	372	NA
B44	27-Dec-13	15.0	10.0	390	375	380
B45	27-Dec-13	13.3	5.0	395	382	390
B46	27-Dec-13	10.0	3.0	355	345	352

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B1**
Total Depth: 40 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	9-Dec-2013	**Northing:**	1,044,467
Drill Rig:	Track CME 55LC	**Finish Date:**	9-Dec-2013	**Easting:**	518,418
Driller:	T. Sabo	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	327	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	7.5 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	1	24				8" topsoil
1	326			2			ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	
				2					
2	325			2					
3	324								
4	323								
5	322		SS-2	4	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, few gravel, brown, moist	
6	321			1					
				2					
7	320			3					
						▼			
8	319								
9	318								
10	317		SS-3	2	24		SM	Silty Sand (SM): Mostly fine sand, little silt, brown to gray, moist cobble fragment in tip of spoon	
11	316			1					
				1					
12	315			2					
13	314								
14	313								
15	312		SS-4	12	16		ML	Sandy Silt (ML): Mostly silt, some fine sand, trace gravel, brown to gray, moist	
16	311			8					Approximate Strata Change
				4			SM	Silty Sand with Gravel (SM): Mostly med to coarse sand, little silt, little gravel, grey, wet	
17	310			3					
18	309								
19	308								
20	307								Approximate Strata Change

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B1**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	20		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
				6				PL = 16, LL = 17, PI=1	
21	306			6					
				4					
22	305								
23	304								
24	303								
25	302		SS-6	6	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
				6					
26	301			3					
				6					
27	300								
28	299								
29	298								
30	297		SS-7	4	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
				3					
31	296			3					
				4					
32	295								
33	294								
34	293								
35	292		SS-8	3	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
				6					
36	291			7					
				7					
37	290								
38	289		SS-9	9	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
				7					Approximate Strata Change
39	288			5			ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
				8					
40	287							Test Boring Terminated at 40 feet	
41	286								
42	285								
43	284								
44	283								
45	282								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B2**
Total Depth: 40 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	12-Dec-2013	**Northing:**	1,044,343
Drill Rig:	Track CME 55LC	**Finish Date:**	12-Dec-2013	**Easting:**	518,542
Driller:	T. Sabo	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	337	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	11 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	4" topsoil
1	336			1					
				4					
2	335			3					
3	334								
4	333								
5	332								
			SS-2	2	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	
6	331			2					
				2					
7	330			1					
8	329								
9	328								
10	327								
			SS-3	2	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
11	326			2		▼			
				1					
12	325			1					
13	324								
14	323								
15	322								
			SS-4	2	16		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
16	321			2					
				2					
17	320			2					
18	319								
19	318								
20	317								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B2**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	18		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
21	316			7					
				9					
22	315			7					
23	314								
24	313								
25	312								
			SS-6	7	19		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
26	311			6					
				6					
27	310			6					
28	309								
29	308								
30	307								Approximate Strata Change
			SS-7	8	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, grey, moist	
31	306			4					
				6					
32	305			6					
33	304								
34	303								
35	302								
			SS-8	4	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, grey, moist	
36	301			6					
				6					
37	300			7					
38	299								Approximate Strata Change
			SS-9	4	24		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
39	298			4					
				4					
40	297			3					
								Test Boring Terminated at 40 feet	
41	296								
42	295								
43	294								
44	293								
45	292								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B3**

Contractor: Aquifer Drilling and Testing	**Start Date:** 12-Dec-2013	**Northing:** 1,044,169	**Total Depth:** 24 ft.
Drill Rig: Track CME 55LC	**Finish Date:** 12-Dec-2013	**Easting:** 518,537	**Borehole Dia.:** 6 in.
Driller: T. Sabo	**El. Datum:** NAVD 88	**Latitude:** --	**Water Depth:** 6 ft.
Inspector: Kurt Ilker	**G.S. Elevation:** 337	**Longitude:** --	**Rock Depth:** NA ft.
			Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	16		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	3" topsoil
1	336			2					
				4					
2	335			4					
3	334								
4	333								
5	332								
			SS-2	2	20		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist to wet	
6	331			2		▼			
				2					
7	330			2					
8	329								
9	328								
10	327								
			SS-3	2	14		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
11	326			2					
				2					
12	325			3					
13	324								
14	323								Approximate Strata Change
15	322								
			SS-4	3	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, few clay, brown, moist	
16	321			4					
				4					
17	320			4					
18	319								Approximate Strata Change
19	318								
20	317								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	24.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B3**
Total Depth: 24 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	8	15		ML	Sandy Silt (ML): Some silt, some sand, few gravel, few clay, grey, wet	
21	316			5					moisture content = 15.4%
				6				non plastic	
22	315			8					
23	314								
24	313								
								Test Boring Terminated at 24' due to Auger Refusal	probable very large boulder
25	312								
26	311							**Moved 6 feet South - B3A**	
								Spun Augers to 22 ft and Encountered Refusal	
27	310								
28	309								
29	308								
30	307								
31	306								
32	305								
33	304								
34	303								
35	302								
36	301								
37	300								
38	299								
39	298								
40	297								
41	296								
42	295								
43	294								
44	293								
45	292								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B4**

Contractor: Aquifer Drilling and Testing	**Start Date:** 13-Dec-2013	**Northing:** 1,043,997	**Total Depth:** 40 ft.		
Drill Rig: Track CME 55LC	**Finish Date:** 13-Dec-2013	**Easting:** 518,574	**Borehole Dia.:** 6 in.		
Driller: T. Sabo	**El. Datum:** NAVD 88	**Latitude:** --	**Water Depth:** 6 ft.		
Inspector: Kurt Ilker	**G.S. Elevation:** 340	**Longitude:** --	**Rock Depth:** NA ft.		
			Sample Hammer: Automatic		

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	16		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	4" topsoil
1	339			3					
				5					
2	338			4					
3	337								
4	336								
5	335								
			SS-2	WH	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	
6	334			2		▼			
				2					
7	333			2					
8	332								
9	331								
10	330								
			SS-3	18	14		ML	fractured 4" cobble at 10 feet	
11	329			5				Silt (ML): Mostly silt, few clay, trace fine sand, brown, moist	
				4					
12	328			7					
13	327								
14	326								
15	325								
			SS-4	3	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
16	324			3					Approximate strata Change
				7			ML	Silt (ML): Mostly silt, trace fine sand, grey, wet	
17	323			8					
18	322								
19	321								
20	320								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B4**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	6	18		ML	Silt (ML): Mostly silt, trace fine sand, grey, wet	
21	319			7					
				6					
22	318			7					
23	317								
24	316								Approximate Strata Change
25	315		SS-6	8	24		SP	Poorly Graded Sand Sand (SP): Mostly med sand, trace silt, grey, wet lens of grey silt from 25.5 to 26.5	
26	314			8					
				9					
27	313			10					
28	312								
29	311								
30	310								Approximate Strata Change
			SS-7	5	24		SM	Silty Sand (SM): Mostly med sand, some silt, trace fine sand, grey, moist	
31	309			7					
				12					
32	308			12					
33	307								
34	306								
35	305		SS-8	7	24		SM	Silty Sand (SM): Mostly fine sand, little silt, grey, moist	
36	304			7					
				9					
37	303			8					
38	302		SS-9	11	18		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
39	301			13					
				14					
40	300			10					
								Test Boring Terminated at 40 feet	
41	299								
42	298								
43	297								
44	296								
45	295								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B5**
Total Depth: 42 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: T. Sabo
Inspector: Kurt Ilker

Start Date: 16-Dec-2013
Finish Date: 16-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 336

Northing: 1,043,876
Easting: 518,463
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 8 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	15	18		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	3" Asphalt
1	335			6					
				6					
2	334			7					
3	333								
4	332								
5	331		SS-2	3	0		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	
6	330			3					
				3					
7	329			4					
8	328					▼			
9	327								
10	326		SS-3	4	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, brown and orange, moist	
11	325			5					
				5					
12	324			5					
13	323								
14	322								
15	321		SS-4	5	24		ML	Silt (ML): Mostly silt, little clay, trace fine sand, brown and orange, moist	
16	320			6					
				6					
17	319			6					
18	318								
19	317								
20	316								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Monitoring Well - 2" PVC to 40 ft

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B5**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	24		ML	Silt (ML): Mostly silt, little clay, trace fine sand, brown, wet	Approximate Strata Change
21	315			9			SM	Silty Sand (SM): Mostly fine sand, some silt, few clay, brown, moist	
				8					
22	314			11					
23	313								
24	312								Approximate Strata Change
25	311		SS-6	7	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, few clay, brown, moist	
26	310			7					
				6					
27	309			7					
28	308								
29	307								
30	306								Approximate Strata Change
			SS-7	6	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, grey, moist	cobble fragment at 30.5'
31	305			5					
				4					
32	304			7					
33	303								
34	302								
35	301		SS-8	7	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, grey, moist	
36	300			7					
				6					
37	299			6					
38	298								
39	297								
40	296		SS-9	5	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, grey, moist	
41	295			5					
				6					
42	294			7					
								Test Boring Terminated at 42 feet	
43	293								
44	292								
45	291								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B6**
Total Depth: 20 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: T. Sabo
Inspector: Kurt Ilker

Start Date: 13-Dec-2013
Finish Date: 13-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 330

Northing: 1,043,619
Easting: 518,110
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 10 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	3	7		ML	Silt with Sand (ML): Mostly silt, little fine sand, brown, moist	3" topsoil
1	329			4					
				4					
2	328			4					
3	327								
4	326								
5	325		SS-2	1	12		ML	Silt with Sand (ML): Mostly silt, little fine sand, trace gravel, brown and grey, moist	
6	324			1					
				2					
7	323			2					
8	322								
9	321								
10	320					▼			
			SS-3	5	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, brown and grey, moist	Approximate Strata Change
11	319			7			ML	Silt (ML): Mostly silt, few fine sand, grey, moist	
				9					
12	318			14					
13	317								
14	316								Approximate Strata Change
15	315		SS-4	4	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, brown, moist	
16	314			4					
				5					
17	313			5					
18	312		SS-5	6	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, brown, moist	
19	311			8					
				7					
20	310			8				Test Boring Terminated at 20 feet	

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	20.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B7**
Total Depth: 20 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: T. Sabo
Inspector: Kurt Ilker

Start Date: 13-Dec-2013
Finish Date: 13-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 333

Northing: 1,043,618
Easting: 518,310
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 10 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, brown, moist	3" topsoil
1	332			2					
				4					
2	331			4					
3	330								
4	329								
5	328								
			SS-2	9	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, brown, moist	
6	327			8					
				7					
7	326			7					
8	325								
9	324								
10	323					▼			
			SS-3	8	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, brown and grey, wet	Approximate Strata Change
11	322			5					
				4					
12	321			4					
13	320								
14	319								Approximate Strata Change
15	318								
			SS-4	4	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, brown, moist	
16	317			2					
				4					
17	316			5					
18	315								
			SS-5	3	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, brown, moist	
19	314			3					
				12					
20	313			12				Test Boring Terminated at 20 feet	

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	18.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B8**
Total Depth: 99 ft.

Contractor: Aquifer Drilling and Testing	**Start Date:** 10-Dec-2013	**Northing:** 1,044,006	**Borehole Dia.:** 6 in.
Drill Rig: Truck Mobile B61	**Finish Date:** 10-Dec-2013	**Easting:** 518,853	**Water Depth:** 5 ft.
Driller: R. Buley	**El. Datum:** NAVD 88	**Latitude:** --	**Rock Depth:** NA ft.
Inspector: Kurt Ilker	**G.S. Elevation:** 356	**Longitude:** --	**Sample Hammer:** Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	3	3		GM	Silty Gravel with Sand (GM): Mostly gravel, little sand, little silt, brown, dry	
1	355			15					
				18					
2	354			17				occasional cobbles and small boulders	
3	353								
4	352								Approximate Strata Change
5	351					▼			
			SS-2	15	15		ML	Silt (ML): Mostly silt, few gravel, few fine sand, trace clay, brown and grey, moist	
6	350			14					
				12					
7	349			18					
8	348							occasional cobbles and small boulders	
9	347								
10	346								
			SS-3	30	0		ML	Sandy Silt (ML): Mostly silt, some silt, brown to grey, wet	grab sample from augers
11	345			35					
				28					
12	344			26					
13	343								
14	342								Approximate Strata Change
15	341								
			SS-4	5	12		ML	Silt (ML): Mostly silt, trace fine sand, grey, wet	
16	340			8					
				20					
17	339			22					
18	338								
19	337								
20	336								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Groundwater reading after 24 hours
2. located 8 ft west and 3 ft north of stake

DRILLING INFORMATION

Method:	HSA	0 to	99.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B8**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	14		ML	Silt with Sand (ML): Mostly silt, little fine sand, few clay, trace fine gravel, grey, wet	
21	335			7					
				12					
22	334			12					
23	333								
24	332								
25	331		SS-6	5	15		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, wet	
26	330			7					
				7					
27	329			8					
28	328								
29	327								
30	326		SS-7	5	0		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, wet	
31	325			5					
				11					
32	324			12					
33	323								
34	322								
35	321		SS-8	10	15		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, wet	
36	320			12					
				15					
37	319			17					
38	318								
39	317								
40	316		SS-9	8	19		ML	Silt (ML): Mostly silt, trace clay, trace gravel, grey, wet	
41	315			12					
				16					
42	314			20					
43	313								
44	312								
45	311								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B8**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-10	11	17		ML	Silt (ML): Mostly silt, trace clay, trace gravel, grey, wet	
				15					
46	310			15					
				16					
47	309								
48	308								
49	307								
50	306		SS-11	8	15		ML	Silt (ML): Mostly silt, trace clay, trace gravel, grey, wet	
				10					
51	305			12					
				14					
52	304								
53	303								
54	302								
55	301		SS-12	7	20		ML	Silt (ML): Mostly silt, trace clay, trace gravel, grey, wet	
				9					
56	300			19					
				13					
57	299								
58	298								
59	297								
60	296		SS-13	5	21		CL-ML	Silty Clay (CL-ML): Mostly silt, some clay, grey, wet PL = 18, LL = 24, PI = 6	moisture content = 20.1%
				12					
61	295			15					
				17					
62	294								
63	293								
64	292								
65	291		SS-14	WR	21		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				5					
66	290			11					
				16					
67	289								
68	288								
69	287								
70	286								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B8**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-15	WR	16		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				WR					
71	285			5					
				11					
72	284								
73	283								
74	282								
75	281		SS-16	WR	19		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				7					
76	280			12					
				21					
77	279								
78	278								
79	277								
80	276		SS-17	9	24		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				17					
81	275			27					
				24					
82	274								
83	273								
84	272								
85	271		SS-18	WR	12		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				6					
86	270			22					
				32					
87	269								
88	268								
89	267								
90	266		SS-19	5	18		ML	Silt (ML): Mostly silt, few clay, trace gravel, grey, wet	
				18					
91	265			20					
				25					
92	264								
93	263								
94	262								
95	261								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B8**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-20	3	20		CL-ML	Silty Clay (CL-ML): Mostly silt, some clay, grey, wet	
96	260			13				PL = 18, LL = 25, PI = 7	
				23					
				36					
97	259		SS-21	21	24		ML	Silt (ML): Mostly silt, few clay, grey, wet	
				27					
98	258			30					
				32					
99	257							Test Boring Terminated at 99 feet	
100	256								
101	255								
102	254								
103	253								
104	252								
105	251								
106	250								
107	249								
108	248								
109	247								
110	246								
111	245								
112	244								
113	243								
114	242								
115	241								
116	240								
117	239								
118	238								
119	237								
120	236								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B9**
Total Depth: 42 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	26-Dec-2013	**Northing:**	1,044,090
Drill Rig:	Truck Mobile B61	**Finish Date:**	26-Dec-2013	**Easting:**	519,040
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	356	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	16 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	15		GM	Silty Gravel with Sand (GM): Mostly gravel, little sand, little silt, brown, dry	3" topsoil
1	355			2					
				5					
2	354			4					
3	353								
								frequent cobbles and small boulders	
4	352								
5	351								
			SS-2	11	0		GM	Silty Gravel with Sand (GM): Mostly gravel, little sand, little silt, brown, dry	
6	350			10					
				10					
7	349			14					
								augered out of cobbles and small boulders	
8	348								Approximate Strata Change
9	347								
10	346								
			SS-3	5	3		ML	Silt with Gravel (ML): Mostly silt, little gravel, few fine sand, brown and grey, moist	
11	345			6					
				6					
12	344			10					
13	343								
14	342								
15	341								
			SS-4	7	16		ML	Silt with Gravel (ML): Mostly silt, little gravel, few fine sand, brown and grey, moist	
16	340			7		▼			Approximate Strata Change
				5			ML	Silt (ML): Mostly silt, few fine sand, grey, wet	
17	339			6					
18	338								
19	337								
20	336								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B9**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	3	20		ML	Silt (ML): Mostly silt, few fine sand, trace clay, grey, wet	
				8					
21	335			8				lenses of grey clay	
				11					
22	334								
23	333								
24	332								
25	331		SS-6	5	6		ML	Silt (ML): Mostly silt, few fine sand, trace clay, grey, wet	
				9					
26	330			14				lenses of grey clay	
				14					
27	329								
28	328								
29	327								
30	326		SS-7	2	24		ML	Silt (ML): Mostly silt, few fine sand, trace clay, grey, wet	
				5					
31	325			6					
				6					
32	324								
33	323								
34	322								
35	321		SS-8	5	24		ML	Silt (ML): Mostly silt, few fine sand, trace clay, grey, wet	
				6					
36	320			7					
				10					
37	319								
38	318								
39	317								
40	316		SS-9	5	24		ML	Silt (ML): Mostly silt, few fine sand, trace clay, grey, wet	
				9					
41	315			10					
				15					
42	314							Test Boring Terminated at 42 feet	
43	313								
44	312								
45	311								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B10**

Contractor:	Aquifer Drilling and Testing	**Start Date:**	9-Dec-2013	**Northing:**	1,044,121
Drill Rig:	Truck Mobile B61	**Finish Date:**	9-Dec-2013	**Easting:**	519,184
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	357	**Longitude:**	--

Total Depth:	4	ft.
Borehole Dia.:	6	in.
Water Depth:	NA	ft.
Rock Depth:	NA	ft.
Sample Hammer:	Automatic	

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	12		SM	Silty Sand with Gravel (SM): Mostly fine sand, some silt, little gravel, brown, dry	4" topsoil
1	356			12					
				22					
2	355			50/.2					
3	354							numerous cobbles encountered	
4	353							Test Boring Terminated at 4' due to Auger Refusal	probable boulder
5	352								
6	351							**Moved 10 feet to Road - B10A**	
7	350							**Spun Augers to 4 ft and Encountered Refusal**	
8	349								
9	348								
10	347								
11	346								
12	345								
13	344								
14	343								
15	342								
16	341								
17	340								
18	339								
19	338								
20	337								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	4.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B11**
Total Depth: 40 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	12-Dec-2013	**Northing:**	1,043,899
Drill Rig:	Truck Mobile B61	**Finish Date:**	12-Dec-2013	**Easting:**	518,992
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Matt Korn	**G.S. Elevation:**	360	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	11 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
							SM	Silty Sand (SM): Mostly fine sand, some silt, brown, moist	4" topsoil
1	359								
2	358								
3	357								
4	356								Approximate Strata Change
5	355		SS-1	18	4		ML	Silt with Sand (ML): Mostly silt, little sand, trace gravel, brown, dry occasional cobble	
6	354			50/.4					
7	353								Approximate Strata Change
8	352								
9	351								
10	350		SS-2	3	0		ML	Silt with Sand (ML): Mostly silt, little fine sand, little clay, brown, moist	
11	349			8		▼			
				10					
12	348			13					
13	347								
14	346								
15	345		SS-4	9	12		ML	Silt with Sand (ML): Mostly silt, little fine sand, little clay, brown, moist	
16	344			14					
				16					
17	343			15					
18	342								
19	341								
20	340								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B11**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	18		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
21	339			7					
				9					
22	338			7					
23	337								
24	336								
25	335								
			SS-6	7	19		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, wet	
26	334			6					
				6					
27	333			6					
28	332								
29	331								
30	330								Approximate Strata Change
			SS-7	8	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, grey, moist	
31	329			4					
				6					
32	328			6					
33	327								
34	326								
35	325								
			SS-8	4	24		ML	Sandy Silt (ML): Mostly silt, some fine sand, grey, moist	
36	324			6					
				6					
37	323			7					
38	322								Approximate Strata Change
			SS-9	4	24		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
39	321			4					
				4					
40	320			3					
								Test Boring Terminated at 40 feet	
41	319								
42	318								
43	317								
44	316								
45	315								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B12**
Total Depth: 42 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	12-Dec-2013	**Northing:**	1,043,941
Drill Rig:	Truck Mobile B61	**Finish Date:**	12-Dec-2013	**Easting:**	519,147
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	365	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	13 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	6	4				4" Asphalt
1	364			20			GP	Poorly Graded Gravel with Sand (GP): Mostly gravel, some sand, trace silt, brown, moist	
				50/.1					
2	363								
3	362							occasional cobbles	
4	361								
5	360		SS-2	14	6		SM	Silty Sand with Gravel (SM): Mostly sand, some gravel, little silt, brown, moist to wet	
6	359			14					
				22					
7	358			5				frequent cobbles	
8	357								
9	356								
10	355		SS-3	50/.5	0		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, wet	
11	354								
12	353								
13	352					▼			
14	351								
15	350		SS-4	22	12		SM	Silty Sand with Gravel (SM): Mostly sand, little silt, little gravel, brown, wet	
16	349			33					
				38					
17	348			20					
18	347								
19	346								
20	345								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES:
1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.

ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B12**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	4		SM	Silty Sand with Gravel (SM): Mostly sand, little silt, little gravel, brown, wet	
21	344			25					
				50/.3					
22	343								
23	342							frequent small cobbles and gravel @ 23 feet	
24	341								
25	340		SS-6	WH	20		SP	Poorly Graded Sand (SP): Mostly medium and fine sand, trace silt, brown, wet	
26	339			14					
				26					
27	338			32					
28	337								
29	336								
30	335		SS-7	2	12		SP	Poorly Graded Sand (SP): Mostly sand, few gravel, trace silt, brown, wet	
31	334			4					
				5					
32	333			7					
33	332								
34	331								
35	330		SS-8	5	6		SP	Poorly Graded Sand (SP): Mostly sand, few gravel, trace silt, brown, wet	
36	329			6					
				8					
37	328			7					
38	327								
39	326								
40	325		SS-9	7	24		SP	Poorly Graded Sand (SP): Mostly sand, few gravel, trace silt, brown, wet	
41	324			8					
				5					
42	323			5					
								Test Boring Terminated at 42 feet	
43	322								
44	321								
45	320								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B13**

Total Depth: 40 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	9-Dec-2013	**Northing:**	1,044,028
Drill Rig:	Truck Mobile B61	**Finish Date:**	9-Dec-2013	**Easting:**	519,301
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	361	**Longitude:**	--

Borehole Dia.:	6	in.
Water Depth:	11	ft.
Rock Depth:	NA	ft.
Sample Hammer:	Automatic	

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	8		SM	Silty Sand (SM): Mostly fine sand, some silt, few gravel, brown, moist	4" topsoil
1	360			9					
				10					
2	359			10					
3	358							frequent cobbles	
4	357								
5	356								
			SS-2	50/.4	0				
6	355							frequent cobbles and small boulders	
7	354								
8	353								
9	352								
10	351								
11	350					▼			
12	349								
13	348								
14	347								
15	346								
			SS-3	50/.2	0		SP	Poorly Graded Sand (SP): Mostly sand, trace gravel, brown, wet	
16	345								
17	344								
18	343								
19	342								
20	341								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger

SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube

STANDARD NOTES:
1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.

ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B13**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-4	50/.4	0		SM	Silty Sand (SM): Mostly fine sand, little silt, brown, wet	
21	340								
22	339							frequent cobbles and small boulders	
23	338								
24	337							observed from Auger cuttings	
25	336							soil matrix consists of silty sand (SM)	
26	335								
27	334								
28	333								
29	332								
30	331							occasional cobbles	
			SS-5	50/5	0				
31	330								
32	329								Approximate Strata Change
33	328								
34	327								
35	326		SS-6	2	24		ML	Silt (ML): Mostly silt, few clay, grey, most	
36	325			11					
				13					
37	324			15					
38	323								
39	322								
40	321		SS-7	5			ML	Sandy Silt (ML): Mostly silt, some fine sand, trace clay, grey, moist	
41	320			11					
				11					
42	319			12					
								Test Boring Terminated at 42 feet	
43	318								
44	317								
45	316								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B14**
Total Depth: 42 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: R. Buley
Inspector: Kurt Ilker

Start Date: 26-Dec-2013
Finish Date: 26-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 359

Northing: 1,043,654
Easting: 518,640
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 18 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	5	14		GM	Silty Gravel with Sand (GM): Mostly gravel, some sand, little silt, brown, dry	
1	358			8					
				6					
2	357			8					
3	356								
4	355								Approximate Strata Change
5	354		SS-2	4	12		ML	Silt with Sand (ML): Mostly silt, little clay, little fine sand, brown, moist	
6	353			5					
				7					
7	352			8					
8	351								
9	350								
10	349		SS-3	7	0		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, moist	
11	348			8					
				11					
12	347			15					
13	346								
14	345								
15	344		SS-4	5	16		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, moist	
16	343			7					
				9					
17	342			10					
18	341					▼			
19	340								
20	339								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B14**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	13		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, wet	
21	338			7					
				6					
22	337			6					
23	336								
24	335								
25	334		SS-6	6	14		ML	Silt with Sand (ML): Mostly silt, little fine sand, few clay, brown, wet	
26	333			7					
				6					
27	332			7					
28	331								
29	330								
30	329		SS-7	6	14		ML	Silt with Sand (ML): Mostly silt, little fine sand, few clay, brown, wet	
31	328			7					
				7					
32	327			6					
33	326								
34	325								
35	324		SS-8	5	14		ML	Silt with Sand (ML): Mostly silt, little fine sand, few clay, brown, wet	
36	323			6					
				6					
37	322			5					
38	321								Approximate Strata Change
39	320								
40	319		SS-9	6	16		SM	Silty Sand (SM): Mostly fine sand, little silt, trace clay, brown to grey, wet	
41	318			6					
				5					
42	317			6					
								Test Boring Terminated at 42 feet	
43	316								
44	315								
45	314								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B15**
Total Depth: 7.5 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	12-Dec-2013	**Northing:**	1,043,764
Drill Rig:	Truck Mobile B61	**Finish Date:**	12-Dec-2013	**Easting:**	518,902
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	359	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	NA ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
									4" Asphalt
1	358						GP	Silty Gravel (GM): Mostly gravel, little silt, brown, moist	
2	357								
3	356							Test Boring 15 Terminated at 3' due to Auger Refusal	probable boulder
4	355							Test Boring 15A Terminated at 3.5' due to Auger Refusal **Moved 15 feet to Southeast - B15B - same material to 3.5 ft**	probable boulder
5	354		SS-1	48	0		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, moist	
6	353			36					
				32					
7	352			30					probable boulder
8	351							Test Boring 15B Terminated at 7.5' due to Auger Refusal	
9	350								
10	349								
11	348								
12	347								
13	346								
14	345								
15	344								
16	343								
17	342								
18	341								
19	340								
20	339								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	9.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B16**
Total Depth: 9 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Truck Mobile B61
Driller: R. Buley
Inspector: Matt Korn

Start Date: 9-Dec-2013
Finish Date: 9-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 364

Northing: 1,043,804
Easting: 519,115
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: NA ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	3	10		SM	Silty Sand (SM): Mostly fine sand, some silt, trace gravel, brown, dry	4" topsoil
1	363			5					
				15					
2	362			23					
								frequent cobbles	
3	361								
4	360							Test Boring 16 Terminated at 4' due to Auger Refusal	probable boulder
								Moved 5 feet to Sidewalk - B16A - same material to 5 ft	
5	359		SS-2	10	3		SM	Silty Sand (SM): Mostly fine sand, some silt, few gravel, brown, dry	
6	358			50/.2					
7	357							Test Boring 16A Terminated at 7' due to Auger Refusal	probable boulder
8	356							**Moved 12 feet to Road - B16B - same material to 9 ft**	
9	355							Test Boring 16B Terminated at 9' due to Auger Refusal	probable boulder
10	354								
11	353								
12	352								
13	351								
14	350								
15	349								
16	348								
17	347								
18	346								
19	345								
20	344								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	9.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B17**
Total Depth: 8 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Truck Mobile B61
Driller: R. Buley
Inspector: Kurt Ilker

Start Date: 16-Dec-2013
Finish Date: 17-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 368

Northing: 1,043,812
Easting: 519,390
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: NA ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	8	15		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, moist	
1	367			7					
				8					
2	366			5					
3	365								
4	364								
5	363								
			SS-2	23	1		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, moist	
6	362			21					
				18					
7	361			50/.2					
8	360								probable boulder
								Test Boring 17 and 17A Terminated at 8' due to Auger Refusal	
9	359							**Moved 6 feet South - B17A - same material to 8 ft**	
10	358							**Moved 20 feet southeast - B17B - same material to 5 ft**	
								Test Boring 17B Terminated at 5' due to Auger Refusal	
11	357								
12	356								
13	355								
14	354								
15	353								
16	352								
17	351								
18	350								
19	349								
20	348								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	8.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B18**
Total Depth: 17 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	19-Dec-2013	**Northing:**	1,043,768
Drill Rig:	Truck Mobile B61	**Finish Date:**	19-Dec-2013	**Easting:**	519,587
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	366	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	12 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	10	12		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, moist	
1	365			16					
				13					
2	364			15					
3	363								
4	362								
5	361		SS-2	16	10		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, moist	
6	360			18					
				15					
7	359			17					
8	358								
9	357								
10	356							cobble	
			SS-3	40	10		SM	Silty Sand (SM): Mostly fine sand, some silt, brown, wet	
11	355			42					
				17					
12	354			15		▼			
13	353								
14	352								
15	351		SS-4	6	15		SM	Silty Sand (SM): Mostly fine sand, some silt, brown, wet	
16	350			8					
				9					
17	349			10					
18	348							Test Boring Terminated at 17 feet	
19	347								
20	346								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Monitoring well - screen set from 5-15 feet
2. Moved 5 ft east of stake

DRILLING INFORMATION

Method:	HSA	0 to	15.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B19**
Total Depth: 40 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: T. Sabo
Inspector: Rob LaColla

Start Date: 17-Dec-2013
Finish Date: 17-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 355

Northing: 1,043,437
Easting: 518,662
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 18 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	3	24		ML	Silt (ML): Mostly silt, trace sand, trace clay, brown, moist	
1	354			3					
				2					
2	353			3					
3	352								
4	351								
5	350								
			SS-2	4	24		ML	Silt (ML): Mostly silt, few clay, trace sand, brown and grey, moist	
6	349			4					
				4					
7	348			5					
8	347								
9	346								
10	345								
			SS-3	6	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, brown and gray, moist	
11	344			6					
				5					
12	343			9					
13	342								
14	341								
15	340								
			SS-4	4	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, brown and gray, moist	
16	339			6					
				7					
17	338			6					
18	337					▼			
19	336								
20	335								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B19**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	7	14		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, brown, moist	
21	334			6					
				6					
22	333			4					
23	332								
24	331								
25	330		SS-6	4	24		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, brown, moist	
26	329			5					
				5					
27	328			4					
28	327								
29	326								
30	325		SS-7	4	24		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, grey, moist	
31	324			5					
				11					
32	323			10					
33	322								
34	321								
35	320		SS-8	9	24		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, grey, moist	
36	319			9					
				8					
37	318			9					
38	317		SS-9	12	24		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, grey, moist	
39	316			10					
				10					
40	315			12					
								Test Boring Terminated at 40 feet	
41	314								
42	313								
43	312								
44	311								
45	310								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B20**
Total Depth: 40 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	19-Dec-2013	**Northing:**	1,043,508
Drill Rig:	Track CME 55LC	**Finish Date:**	19-Dec-2013	**Easting:**	518,809
Driller:	T. Sabo	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Illker	**G.S. Elevation:**	362	**Longitude:**	--

Borehole Dia.:	6	in.
Water Depth:	3.5	ft.
Rock Depth:	NA	ft.
Sample Hammer:	Automatic	

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	18	4		SM	Silty Sand (SM): Mostly sand, little silt, trace gravel, brown, moist	
1	361			18				occasional cobbles	
				17					
2	360			9					
3	359					▼			
4	358								
5	357		SS-2	100/.5	2			cobble	
6	356								
7	355								
8	354								
9	353								
10	352		SS-3	30	10			cobble	
11	351			30					
				30					
12	350			50/.3					
13	349								
14	348								
15	347		SS-4	30	14		SM	Silty Sand with Gravel (SM): Mostly sand, some gravel, little silt, brown, wet	
16	346			20					
				15					
17	345			12					
18	344								
19	343								
20	342								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B20**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	18	10		SM	Silty Sand (SM): Mostly sand, some gravel, little silt, brown, wet	
21	341			18					
				21					
22	340			27					
23	339								
24	338								
25	337		SS-6	7	12		SM	Silty Sand with Gravel (SM): Mostly sand, some gravel, little silt, brown, wet	
26	336			10					
				14					
27	335			15					
28	334								
29	333								
30	332		SS-7	9	16		SM	Silty Sand with Gravel (SM): Mostly sand, some gravel, little silt, brown, wet	
31	331			8					
				16				4" pocket of silt and clay	
32	330			16					
33	329								
34	328								
35	327		SS-8	19	14		SM	Silty Sand with Gravel (SM): Mostly sand, some gravel, little silt, brown, wet	
36	326			18					
				14					
37	325			9					Approximate Strata Change
38	324		SS-9	7	24		ML	Silt with Sand (ML): Mostly silt, little sand, few gravel, few clay, grey, moist	
39	323			7					
				7					
40	322			9				Test Boring Terminated at 40 feet	
41	321								
42	320								
43	319								
44	318								
45	317								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B21**

Contractor: Aquifer Drilling and Testing	**Start Date:**	16-Dec-2013	**Northing:**	1,043,463	**Total Depth:** 42 ft.
Drill Rig: Truck Mobile B61	**Finish Date:**	16-Dec-2013	**Easting:**	519,055	**Borehole Dia.:** 6 in.
Driller: R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--	**Water Depth:** 10.5 ft.
Inspector: Rob LaColla	**G.S. Elevation:**	367	**Longitude:**	--	**Rock Depth:** NA ft.
					Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
							SM	Silty Sand (SM): Mostly sand, little silt, trace gravel, brown, moist	
1	366							frequent cobbles	
2	365								
3	364								
4	363								
5	362							frequent cobbles	
			SS-1	21	0		SM	Silty Sand with Gravel (SM): Mostly sand, little silt, little gravel, brown, moist	
6	361			50/.4					
7	360								
8	359							occasional cobbles	
9	358								
10	357								
			SS-2	50/.1	0	▼	SM	Silty Sand (SM): Mostly fine sand, some silt, brown, moist	
11	356								
12	355							occasional cobbles	
13	354								
14	353								
15	352								
16	351							trace cobbles	
17	350								
18	349								Approximate Strata Change
19	348								
20	347								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B21**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-3	2	18		ML	Silt with Sand (ML): Mostly silt, little clay, little fine sand, grey, wet	
				4					
21	346			5					
				6					
22	345								
23	344								
24	343								
25	342		SS-4	4	18		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
				9					
26	341			12					
				14					
27	340								
28	339								
29	338								
30	337		SS-5	24	4		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
				24					
31	336			26					
				17					
32	335								
33	334								
34	333								
35	332		SS-6	WH	12		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
				11					
36	331			12					
				20					
37	330								
38	329								
39	328								
40	327		SS-7	WH	18		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
				16					
41	326			18					
				20					
42	325							Test Boring Terminated at 42 feet	
43	324								
44	323								
45	322								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B22**
Total Depth: 42 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	16-Dec-2013	**Northing:**	1,043,526
Drill Rig:	Truck Mobile B61	**Finish Date:**	16-Dec-2013	**Easting:**	519,151
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Rob LaColla	**G.S. Elevation:**	368	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	12 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
							SM	Silty Sand (SM): Mostly sand, little silt, trace gravel, brown, moist (based on soil cuttings from auger) frequent cobbles	
1	367								
2	366								
3	365								
4	364								
5	363								
6	362								
7	361								
8	360							occasional cobbles	
9	359								
10	358								
11	357								
12	356					▼			Approximate Strata Change
13	355								
14	354								
15	353		SS-1	5	4		ML	Silt with Sand (ML): Mostly silt, little clay, little fine sand, grey, wet	
16	352			10					
				15					
17	351			20					
18	350								
19	349								
20	348								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B22**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-2	7	14		ML	Silt (ML): Mostly silt, little clay, grey, wet	
21	347			17					
				17					
22	346			17					
23	345								
24	344								
25	343		SS-3	6	16		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
26	342			9					
				11					
27	341			11					
28	340								
29	339								
30	338		SS-4	10	9		ML	Silt with Sand (ML): Mostly silt, little clay, little fine sand, grey, wet	
31	337			11					
				12					
32	336			14					
33	335								
34	334								
35	333		SS-5	12	12		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, wet	
36	332			10					
				11					
37	331			15					
38	330								
39	329								
40	328		SS-6	12	16		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, wet	
41	327			12					
				16					
42	326			16					
								Test Boring Terminated at 42 feet	
43	325								
44	324								
45	323								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B23**
Total Depth: 40 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	16-Dec-2013	**Northing:**	1,043,443
Drill Rig:	Track CME 55LC	**Finish Date:**	17-Dec-2013	**Easting:**	519,216
Driller:	T. Sabo	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Rob LaColla	**G.S. Elevation:**	369	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	25 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	7	10		SM	Silty Sand (SM): Mostly sand, little silt, trace gravel, brown, moist	
1	368			7					
				16					
2	367			21					
3	366								auguer refusal on boulder
4	365							**Moved 5 feet southwest - B23A - same material to 3.5 ft**	
5	364		SS-2	28	8		ML	Sandy Silt (SM): Mostly silt, some fine sand, trace gravel, brown, moist	
6	363			35					
				50/.5				boulder fragment	
7	362								
8	361							occasional cobbles	
9	360								
10	359		SS-3	43	18		ML	Sandy Silt (SM): Mostly silt, some fine sand, brown, moist	
11	358			19					
				20					
12	357			22				occasional cobbles	
13	356								
14	355								
15	354		SS-4	25	14		ML	Sandy Silt (SM): Mostly silt, some fine sand, brown, moist	
16	353			26					
				13					
17	352			11					
18	351								
19	350								
20	349								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B23**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	12	20		ML	Sandy Silt (ML): Mostly silt, some fine sand, brown, moist	
21	348			12					
				8					
22	347			9					
23	346								
24	345								
25	344					▼			Approximate Strata Change
			SS-6	7	12		ML	Silt with Sand (ML): Mostly silt, some fine sand, brown, wet	
26	343			10					
				14					
27	342			15					
28	341								
29	340								
30	339		SS-7	9	16		ML	Silt with Sand (ML): Mostly silt, some fine sand, brown, wet	
31	338			8					
				16					
32	337			16					
33	336								
34	335								
35	334		SS-8	19	14		ML	Silt with Sand (ML): Mostly silt, some fine sand, brown, wet	
36	333			18					
				14					
37	332			9					
38	331		SS-9	7	24		ML	Silt with Sand (ML): Mostly silt, some fine sand, brown, wet	
39	330			7					
				7					
40	329			9					
								Test Boring Terminated at 40 feet	
41	328								
42	327								
43	326								
44	325								
45	324								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B24**
Total Depth: 22 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Truck Mobile B61
Driller: R. Buley
Inspector: Rob LaColla

Start Date: 18-Dec-2013
Finish Date: 18-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 369

Northing: 1,043,586
Easting: 519,380
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 16 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	23	12		SM	Silty Sand (SM): Mostly sand, little silt, trace gravel, brown, dry	
1	368			20					
				12					
2	367			17				occasional cobbles	
3	366								
4	365								
5	364								
			SS-2	5	15		ML	Sandy Silt (ML): Mostly silt, some fine sand, trace gravel, brown, dry	
6	363			9					
				9					
7	362			11					
8	361								
9	360								
10	359								
			SS-3	4	12		ML	Sandy Silt (ML): Mostly silt, some fine sand, trace clay, brown, moist	
11	358			6					
				7					
12	357			9					
13	356								
14	355								
15	354								
			SS-4	5	12		ML	Sandy Silt (ML): Mostly silt, some fine sand, trace clay, brown, wet	
16	353			5		▼			
				5					
17	352			5					
18	351								
19	350								
20	349								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Relocate 10 ft east and 12' north of stake

DRILLING INFORMATION

Method:	HSA	0 to	20.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B24**
Total Depth: 22 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	4	12		ML	Sandy Silt (ML): Mostly silt, some fine sand, grey, wet	
21	348			5					
				6					
				7					
22	347							Test Boring Terminated at 22 feet	
23	346								
24	345								
25	344								
26	343								
27	342								
28	341								
29	340								
30	339								
31	338								
32	337								
33	336								
34	335								
35	334								
36	333								
37	332								
38	331								
39	330								
40	329								
41	328								
42	327								
43	326								
44	325								
45	324								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B25**
Total Depth: 22 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Truck Mobile B61
Driller: R. Buley
Inspector: Kurt Ilker

Start Date: 19-Dec-2013
Finish Date: 19-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 365

Northing: 1,043,632
Easting: 519,697
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 13 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
							SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, dry	cobbles at surface
1	364								
2	363								
3	362							frequent cobbles	
4	361								
5	360		SS-1	6	6		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, dry	
6	359			7					
				10					
7	358			13					
8	357								
9	356								Approximate Strata Change
10	355		SS-2	5	4		ML	Silt (ML): Mostly silt, little clay, trace gravel, grey and brown, moist	
11	354			16					
				11					
12	353			23					
13	352					▼		frequent cobbles	
14	351								
15	350		SS-3	15	10		ML	Sandy Silt (ML): Mostly silt, some fine sand, grey to brown, wet	
16	349			29					
				20					
17	348			20					
18	347								
19	346								
20	345								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. relocated 10 ft Northwest of stake

DRILLING INFORMATION

Method:	HSA	0 to	20.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B25**
Total Depth: 22 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-4	12	20		ML	Sandy Silt (ML): Mostly silt, some fine sand, trace clay, brown, wet	
21	344			12					
				8					
22	343			9					
								Test Boring Terminated at 22 feet	
23	342								
24	341								
25	340								
26	339								
27	338								
28	337								
29	336								
30	335								
31	334								
32	333								
33	332								
34	331								
35	330								
36	329								
37	328								
38	327								
39	326								
40	325								
41	324								
42	323								
43	322								
44	321								
45	320								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B26**
Total Depth: 7 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Truck Mobile B61
Driller: R. Buley
Inspector: Matt Korn

Start Date: 9-Dec-2013
Finish Date: 9-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 366

Northing: 1,043,464
Easting: 519,957
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: NA ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	10	15		GP	Poorly Graded Gravel with Sand (GP): Mostly gravel, some sand, trace silt, brown, dry	
1	365			12					
				16					
2	364			24					
3	363							frequent cobbles	
4	362								Approximate Strata Change
5	361		SS-2	50/.1	0		SM	Silty Sand (SM): Mostly fine sand, some silt, few gravel, brown, dry	
6	360								
7	359							Test Boring 26 Terminated at 7' due to Auger Refusal	numerous cobbles locked up auger
8	358							**Moved 5 feet West - B26AB - same material to 5 ft**	
9	357							Test Boring 26A Terminated at 5' due to Auger Refusal	numerous cobbles locked up auger
								Moved 5 feet West - B21B - same material to 6 ft	
10	356							Test Boring 26A Terminated at 6' due to Auger Refusal	numerous cobbles locked up auger
11	355								
12	354								
13	353								
14	352								
15	351								
16	350								
17	349								
18	348								
19	347								
20	346								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Relocated 5 ft South of road (centerline of road)

DRILLING INFORMATION

Method:	HSA	0 to	7.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B27**
Total Depth: 22 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	20-Dec-2013	**Northing:**	1,043,454
Drill Rig:	Truck Mobile B61	**Finish Date:**	20-Dec-2013	**Easting:**	519,543
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	368	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	18 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	7	8		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, dry	
1	367			9					
				11					
2	366			12					
3	365								
4	364								
5	363		SS-2	10	13		GM	Silty Gravel with Sand (GM): Mostly gravel, little silt, little sand, brown, moist	
6	362			16					
				13					
7	361			14					
8	360								
9	359								
10	358		SS-3	15	11		GM	Silty Gravel with Sand (GM): Mostly gravel, little silt, little fine sand, brown, moist	
11	357			12					
				14					
12	356			16					
13	355							frequent cobbles	
14	354								
15	353		SS-4	50/.3	0			cobble	no change in drilling, assumed similar material
16	352								
17	351								
18	350					▼			
19	349								
20	348								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Relocated 24 ft North of stake

DRILLING INFORMATION

Method:	HSA	0 to	20.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B27**
Total Depth: 22 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	12	6		SM	Silty Sand with Gravel (SM): Mostly sand, some silt, some fine gravel, brown, moist	
21	347			15					
				18					
22	346			22					
								Test Boring Terminated at 22 feet	
23	345								
24	344								
25	343								
26	342								
27	341								
28	340								
29	339								
30	338								
31	337								
32	336								
33	335								
34	334								
35	333								
36	332								
37	331								
38	330								
39	329								
40	328								
41	327								
42	326								
43	325								
44	324								
45	323								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B28**
Total Depth: 15.8 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	17-Dec-2013	**Northing:**	1,043,290
Drill Rig:	Track CME 55LC	**Finish Date:**	17-Dec-2013	**Easting:**	518,760
Driller:	T. Sabo	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Rob LaColla	**G.S. Elevation:**	358	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	7 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	12	10		SM	Silty Sand (SM): Mostly sand, little silt, few gravel, brown, dry	
1	357			13					
				8				frequent cobbles	
2	356			7					
3	355								
4	354								
5	353								
			SS-2	25	3		ML	Sandy Silt (ML): Mostly silt, some fine sand, few gravel, brown, dry	
6	352			39					
				30					
7	351			29		▼		frequent cobbles	
8	350								
9	349								
10	348								
			SS-3	7	6		ML	Sandy Silt (ML): Mostly silt, some sand, few gravel, brown, dry	
11	347			6					
				7					
12	346			8				frequent cobbles	
13	345								
14	344								
15	343								
			SS-4	25			ML	Sandy Silt (ML): Mostly silt, some fine sand, few gravel, brown, dry	
16	342			50/.3					probable boulder
								Test Boring Terminated at 15.8' due to Auger Refusal	
17	341								
18	340								
19	339								
20	338								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	15.8
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B29**
Total Depth: 40 ft.

Contractor: Aquifer Drilling and Testing	**Start Date:** 13-Dec-2013	**Northing:** 1,043,330	**Borehole Dia.:** 6 in.
Drill Rig: Truck Mobile B61	**Finish Date:** 13-Dec-2013	**Easting:** 518,969	**Water Depth:** 11 ft.
Driller: R. Buley	**El. Datum:** NAVD 88	**Latitude:** --	**Rock Depth:** NA ft.
Inspector: Kurt Ilker	**G.S. Elevation:** 370	**Longitude:** --	**Sample Hammer:** Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	7	6		GM	Silty Gravel (GM): Mostly gravel, little silt, brown, moist	
1	369			8					
				18					
2	368			17					
3	367								
4	366								
5	365								
			SS-2	9	2		GM	Silty Gravel (GM): Mostly gravel, little silt, brown, moist	
6	364			9					
				11					
7	363			15					
8	362								
9	361								Approximate Strata Change
10	360								
			SS-3	5	12		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, trace gravel, brown to grey, wet	
11	359			10		▼			
				10					
12	358			8					
13	357								
14	356								
15	355								
			SS-4	4	12		ML	Silt (ML): Mostly silt, few clay, grey, moist	
16	354			4					
				8					
17	353			7					
18	352								
19	351								
20	350								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B29**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	6	13		ML	Silt (ML): Mostly silt, few clay, trace gravel, grey, moist	
21	349			11					
				11					
22	348			8					
23	347								
24	346								
25	345		SS-6	3	12		ML	Silt (ML): Mostly silt, trace fine sand, trace clay, grey, wet	
26	344			6					
				10					
27	343			13					
28	342								
29	341								
30	340		SS-7	13	11		ML	Silt with Sand (ML): Mostly silt, some fine sand, trace gravel, grey, wet	
31	339			16					
				20					
32	338			17					
33	337								
34	336								
35	335		SS-8	WR	12		ML	Silt (ML): Mostly silt, few fine sand, grey, wet	
36	334			WR					
				8					
37	333			8					
38	332		SS-9	7	20		CL-ML	Silty Clay (CL-ML): Mostly silt, some clay, few sand, trace gravel, grey, wet PL = 17, LL = 22, PI = 5	
39	331			9					
				8					
40	330			7					
								Test Boring Terminated at 40 feet	
41	329								
42	328								
43	327								
44	326								
45	325								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B30**

Contractor:	Aquifer Drilling and Testing	**Start Date:**	13-Dec-2013	**Northing:**	1,043,291
Drill Rig:	Truck Mobile B61	**Finish Date:**	13-Dec-2013	**Easting:**	519,161
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	378	**Longitude:**	--

Total Depth:	28	ft.
Borehole Dia.:	6	in.
Water Depth:	20	ft.
Rock Depth:	NA	ft.
Sample Hammer:	Automatic	

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	10	15		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, moist	
1	377			12					
				15					
2	376			13					
3	375								
4	374								
5	373		SS-2	13	18		GM	Test Boring 30 Terminated at 5' due to Auger Refusal	
				17				**Moved 8 feet Southwest from stake - B30A - same material to 5 ft**	
6	372			15				Silty Gravel (GM): Mostly gravel, little silt, brown, moist	
7	371			12					
8	370								
9	369								
10	368		SS-3	13	14		SM	Silty Sand (SM): Mostly sand, some silt, trace gravel, trace clay, brown, moist	
11	367			15					
				16					
12	366			14					
13	365								
14	364								Approximate Strata Change
15	363		SS-4	5	12		ML	Silt (ML): Mostly silt, few clay, few sand, brown, moist	moisture content = 21.1%
16	362			17					
				15					
17	361			16					
18	360								
19	359								
20	358					▼			

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. moved B30 9 feet west of stacked location

DRILLING INFORMATION

Method:	HSA	0 to	28.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B30**
Total Depth: 28 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	7	12		ML	Silt (ML): Mostly silt, few clay, trace gravel, brown and grey, moist	
				18					
21	357			21					
				20					
22	356								
23	355								
24	354								
25	353		SS-6	8	13		ML	Silt with Sand (ML): Mostly silt, some fine sand, grey, moist	
				21					
26	352			19					
				20					
27	351								
28	350								probable boulder
								Test Boring Terminated at 28 feet due to Auger Refusal	
29	349								
30	348								
31	347								
32	346								
33	345								
34	344								
35	343								
36	342								
37	341								
38	340								
39	339								
40	338								
41	337								
42	336								
43	335								
44	334								
45	333								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B31**
Total Depth: 42 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: R. Buley
Inspector: Kurt Ilker

Start Date: 26-Dec-2013
Finish Date: 26-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 372

Northing: 1,043,150
Easting: 519,012
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 5 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	10		GM	Silty Gravel with Sand (GM): Mostly gravel,little sand, little silt, brown, dry	2" topsoil
1	371			5					
				9					
2	370			15				frequent cobbles	
3	369								
4	368								Approximate Strata Change
5	367					▼			
			SS-2	WH	18		ML	Silt (ML): Mostly silt, little clay, trace fine sand, brown and grey, wet	
6	366			1					
				5					
7	365			6					
8	364								
9	363								
10	362								
			SS-3	6	0		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, moist	
11	361			5					
				8					
12	360			6					
13	359								
14	358								
15	357								
			SS-4	2	20		ML	Silt with Sand (ML): Mostly silt, little fine sand, few clay, brown, wet	
16	356			3					
				5					
17	355			6					
18	354								
19	353								
20	352								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Relocated 5 feet west of stake

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B31**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	1	18		ML	Silt (ML): Mostly silt, few fine sand, trace clay, brown and red, wet	
				4					
21	351			6					
				8					
22	350								
23	349								
24	348								
25	347		SS-6	WH	16		ML	Silt (ML): Mostly silt, few fine sand, trace clay, grey, wet	
				4					
26	346			5					
				6					
27	345								
28	344								
29	343								
30	342		SS-7	3	24		ML	Silt (ML): Mostly silt,few fine sand, few clay, trace gravel, grey, wet	
				5					
31	341			9					
				10					
32	340								
33	339								
34	338								
35	337		SS-8	11	24		ML	Silt (ML): Mostly silt,few fine sand, few clay, few gravel, grey, wet	
				12					
36	336			14					
				16					
37	335								
38	334								
39	333								
40	332		SS-9	9	24		ML	Silt (ML): Mostly silt,few fine sand, few clay, few gravel, grey, wet	
				13					
41	331			14					
				13					
42	330							Test Boring Terminated at 42 feet	
43	329								
44	328								
45	327								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B32**

Contractor: Aquifer Drilling and Testing	**Start Date:** 19-Dec-2013	**Northing:** 1,043,342	**Total Depth:** 22 ft.		
Drill Rig: Truck Mobile B61	**Finish Date:** 19-Dec-2013	**Easting:** 519,860	**Borehole Dia.:** 6 in.		
Driller: R. Buley	**El. Datum:** NAVD 88	**Latitude:** --	**Water Depth:** 18.5 ft.		
Inspector: Kurt Ilker	**G.S. Elevation:** 367	**Longitude:** --	**Rock Depth:** NA ft.		
			Sample Hammer: Automatic		

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	6	12		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, dry	
1	366			8					
				20					
2	365			12					
								Test Boring 32 Terminated at 2' due to Auger Refusal	probable boulder
3	364							**Moved 6 feet North - B32A - same material to 5 ft**	
								frequent cobbles	
4	363								
5	362		SS-2	50/.2	0		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, dry	
6	361								
7	360								
8	359								
9	358								
10	357		SS-3	12	4		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, dry	
11	356			28					
				15					
12	355			21					
13	354							frequent cobbles	
14	353								
15	352		SS-4	39	8		GM	Silty Gravel with Sand (GM): Mostly gravel, little silt, little sand, brown, moist	
16	351			31					
				12					
17	350			9					
18	349					▼			
19	348								
20	347								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Relocated 10 ft North of stake

DRILLING INFORMATION

Method:	HSA	0 to	20.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B32**
Total Depth: 22 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	8	4		GM	Silty Gravel with Sand (GM): Mostly gravel, some silt, some sand, brown, wet	
21	346			8					
				15					
				34					
22	345							Test Boring Terminated at 22 feet	
23	344								
24	343								
25	342								
26	341								
27	340								
28	339								
29	338								
30	337								
31	336								
32	335								
33	334								
34	333								
35	332								
36	331								
37	330								
38	329								
39	328								
40	327								
41	326								
42	325								
43	324								
44	323								
45	322								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B33**
Total Depth: 40 ft.

Contractor: Aquifer Drilling and Testing	**Start Date:**	18-Dec-2013	**Northing:**	1,043,176	**Borehole Dia.:** 6 in.
Drill Rig: Track CME 55LC	**Finish Date:**	20-Dec-2013	**Easting:**	518,470	**Water Depth:** 10 ft.
Driller: T. Sabo	**El. Datum:**	NAVD 88	**Latitude:**	--	**Rock Depth:** NA ft.
Inspector: Rob LaColla	**G.S. Elevation:**	338	**Longitude:**	--	**Sample Hammer:** Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	16		SM	Silty Sand (SM): Mostly sand, some silt, trace gravel, brown, moist	
1	337			2					
				2					
2	336			3					
3	335								
4	334								
5	333								
			SS-2	4	24		SM	Silty Sand (SM): Mostly sand, some silt, trace gravel, brown, moist	
6	332			7					
				7					Approximate Strata Change
7	331			4			ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, moist	
8	330								
9	329								
10	328					▼			
			SS-3	3	18		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, moist	
11	327			4					
				4					
12	326			4				thin sand lenses in spoon	
13	325								
14	324								
15	323								
			SS-4	4	20		ML	Silt (ML): Mostly silt, little clay, brown, moist PL = 21, LL = 24, PI = 3	moisture content = 24.9%
16	322			5					
				5					
17	321			4					
18	320								
19	319								
20	318								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B33**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	20		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, moist	
21	317			7					
				6					
22	316			7					
23	315								
24	314								
25	313		SS-6	4	19		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
26	312			4					
				6					
27	311			6					
28	310								
29	309								
30	308		SS-7	5	20		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
31	307			5					
				4					
32	306			4					
33	305								
34	304								
35	303		SS-8	5	24		SM	Silty Sand (SM): Mostly fine sand, some silt, few clay, grey, moist	Approximate Strata Change
36	302			5					
				3					
37	301			3					
38	300		SS-9	6	24		SM	Silty Sand (SM): Mostly fine sand, some silt, few clay, grey, moist	
39	299			6					
				8					
40	298			8				Test Boring Terminated at 40 feet	
41	297								
42	296								
43	295								
44	294								
45	293								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B34**
Total Depth: 40 ft.

Contractor: Aquifer Drilling and Testing	**Start Date:** 17-Dec-2013	**Northing:** 1,043,135	**Borehole Dia.:** 6 in.
Drill Rig: Track CME 55LC	**Finish Date:** 17-Dec-2013	**Easting:** 518,852	**Water Depth:** 20 ft.
Driller: T. Sabo	**El. Datum:** NAVD 88	**Latitude:** --	**Rock Depth:** NA ft.
Inspector: Rob LaColla	**G.S. Elevation:** 362	**Longitude:** --	**Sample Hammer:** Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	12	5		SM	Silty Sand with Gravel (SM): Mostly sand, little silt, little gravel, brown, dry	
1	361			10					
				8					
2	360			10					
3	359								
4	358								
5	357								Approximate Strata Change
			SS-2	4	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, brown, moist	
6	356			3					
				4					
7	355			6					
8	354								
9	353								
10	352								
			SS-3	5	24		ML	Silt with Sand (ML): Mostly silt, little fine sand, brown, moist	
11	351			4					
				4					
12	350			3					
13	349								
14	348								Approximate Strata Change
15	347								
			SS-4	4	20		ML	Silt (ML): Mostly silt, few clay, few fine sand, brown, moist	
16	346			5					
				5					
17	345			4					
18	344								
19	343								
20	342					▼			Approximate Strata Change

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B34**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	9	20		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, moist	
21	341			8					
				8					
22	340			9					
23	339								
24	338								
25	337		SS-6	6	24		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
26	336			6					
				5					
27	335			7					
28	334								
29	333								
30	332		SS-7	7	20		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
31	331			7					
				8					
32	330			7					
33	329								
34	328								
35	327		SS-8	5	24		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
36	326			7					
				8					
37	325			8					
38	324		SS-9	7	24		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, moist	
39	323			7					
				11					
40	322			8				Test Boring Terminated at 40 feet	
41	321								
42	320								
43	319								
44	318								
45	317								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B35**

Contractor: Aquifer Drilling and Testing	**Start Date:** 17-Dec-2013	**Northing:** 1,043,042	**Total Depth:** 99 ft.		
Drill Rig: Truck Mobile B61	**Finish Date:** 18-Dec-2013	**Easting:** 519,126	**Borehole Dia.:** 6 in.		
Driller: R. Buley	**El. Datum:** NAVD 88	**Latitude:** --	**Water Depth:** 22 ft.		
Inspector: Kurt Ilker	**G.S. Elevation:** 379	**Longitude:** --	**Rock Depth:** NA ft.		
			Sample Hammer: Automatic		

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
							GM	Silty Gravel with Sand (GM): Mostly gravel, little sand, little silt, brown, dry	
1	378								
2	377							frequent cobbles	
3	376								
4	375								
5	374								
6	373								
7	372								
8	371								
9	370								
10	369								
11	368								
12	367							trace cobbles	
13	366								
14	365								
15	364		SS-1	11	14		ML	Sandy Silt (ML): Mostly silt, some sand, brown and grey, moist	
16	363			9					
				14					
17	362			17					
18	361								
19	360								
20	359								Approximate Strata Change

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger

SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube

STANDARD NOTES:
1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.

ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	99.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B35**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-2	10	4		ML	Silt with Sand (ML): Mostly silt, little fine sand, few clay, grey wet	
21	358			27					
				17					
22	357			6		▼			
23	356								
24	355								
25	354		SS-3	9	0				
26	353			14					
				20					
27	352			24					
28	351								
29	350								
30	349		SS-4	3	10		ML	Silt with Sand (ML): Mostly silt, some fine sand, little clay, grey wet	
31	348			7					
				11					
32	347			15					
33	346								
34	345								
35	344		SS-5	7	11		ML	Silt with Sand (ML): Mostly silt, some fine sand, few clay, grey wet	
36	343			7					
				7					
37	342			10					
38	341								
39	340								
40	339		SS-6	8	24		ML	Silt (ML): Mostly silt, little clay, grey, wet	
41	338			8					
				10					
42	337			10					
43	336								
44	335								
45	334								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B35**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-7	5	14		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				8					
46	333			12					
				15					
47	332								
48	331								
49	330								
50	329		SS-8	6	24		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				6					
51	328			10					
				12					
52	327								
53	326								
54	325								
55	324		SS-9	9	24		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				10					
56	323			19					
				13					
57	322								
58	321								
59	320								
60	319		SS-10	7	15		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				6					
61	318			8					
				10					
62	317								
63	316								
64	315								
65	314		SS-11	10	16		ML	Silt (ML): Mostly silt, little clay, grey, wet	
				13					
66	313			15					
				12					
67	312								
68	311								
69	310								
70	309								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B35**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-12	14	13		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
71	308			13					
				10					
72	307			18					
73	306								
74	305								
75	304		SS-13	13	18		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
76	303			16					
				18					
77	302			14					
78	301								
79	300								
80	299		SS-14	14	22		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
81	298			12					
				10					
82	297			11					
83	296								
84	295								
85	294		SS-15	16	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
86	293			15					
				15					
87	292			13					
88	291								
89	290								
90	289		SS-16	18	22		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
91	288			17					
				13					
92	287			18					
93	286								
94	285								
95	284								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B35**
Total Depth: 99 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-17	19	20		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
96	283			17					
				18					
97	282			16					
			SS-18	10	23		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, moist	
98	281			13					
				13					
99	280			20					
								Test Boring Terminated at 99 feet	
100	279								
101	278								
102	277								
103	276								
104	275								
105	274								
106	273								
107	272								
108	271								
109	270								
110	269								
111	268								
112	267								
113	266								
114	265								
115	264								
116	263								
117	262								
118	261								
119	260								
120	259								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B36**

Contractor:	Aquifer Drilling and Testing	**Start Date:**	27-Dec-2013	**Northing:**	1,043,203
Drill Rig:	Track CME 55LC	**Finish Date:**	27-Dec-2013	**Easting:**	519,491
Driller:	M. Tatum	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	370	**Longitude:**	--

Total Depth:	20	ft.
Borehole Dia.:	6	in.
Water Depth:	7	ft.
Rock Depth:	NA	ft.
Sample Hammer:	Automatic	

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	3	24		SM	Silty Sand (SM): Mostly fine sand, little silt, brown, wet	2" topsoil
				5					
1	369			4					
				6					
2	368								
3	367								
4	366								
5	365		SS-2	2	22		ML	Silt (ML): Mostly silt, few fine sand, trace clay, brown and grey, wet to moist	
				4					
6	364			4					
				5		▼			
7	363								
8	362								
9	361								
10	360		SS-3	3	20		ML	Silt (ML): Mostly silt, few fine sand, trace clay, trace gravel, brown, wet	
				4					
11	359			7					
				8					
12	358								
13	357								
14	356								
15	355		SS-4	3	18		ML	Silt (ML): Mostly silt, few clay, grey, wet	
				4					
16	354			4					
				5					
17	353								
18	352		SS-5	5	16		ML	Silt (ML): Mostly silt, few clay, grey, wet	
				7					
19	351			7					
20	350			9				Test Boring Terminated at 20 feet	

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	18.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B37**
Total Depth: 20 ft.

Contractor: Aquifer Drilling and Testing	**Start Date:**	27-Dec-2013	**Northing:**	1,043,155	**Borehole Dia.:** 6 in.
Drill Rig: Track CME 55LC	**Finish Date:**	27-Dec-2013	**Easting:**	519,729	**Water Depth:** NA ft.
Driller: M. Tatum	**El. Datum:**	NAVD 88	**Latitude:**	--	**Rock Depth:** NA ft.
Inspector: Kurt Ilker	**G.S. Elevation:**	379	**Longitude:**	--	**Sample Hammer:** Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	17		ML	Silt (ML): Mostly silt, few fine sand, few clay, brown, moist	
				3					
1	378			2					
				4					
2	377								
3	376								
4	375								
5	374		SS-2	3	20		ML	Sandy Silt (ML): Mostly silt, some sand, trace clay, brown, moist	
				4					
6	373			5					
				7					
7	372								
8	371								
9	370								
10	369		SS-3	3	16		ML	Sandy Silt (ML): Mostly silt, some sand, trace clay, trace gravel, brown, moist	
				4					
11	368			9					
				12					
12	367								
13	366								
14	365								
15	364								Approximate Strata Change
			SS-4	7	18		SP	Poorly Graded Sand (SP): Mostly sand, trace silt, brown, moist alternating layers of fine and very fine sand	
				6					
16	363			10					
				15					
17	362								
18	361		SS-5	9	12		SP	Poorly Graded Sand (SP): Mostly sand, trace silt, brown, moist alternating layers of fine and very fine sand	
				16					
19	360			16					
20	359			15				Test Boring Terminated at 20 feet	

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	18.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B38**
Total Depth: 40 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	20-Dec-2013	**Northing:**	1,043,005
Drill Rig:	Track CME 55LC	**Finish Date:**	20-Dec-2013	**Easting:**	518,574
Driller:	T. Sabo	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	342	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	5 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	6		SM	Silty Sand with Gravel (SM): Mostly sand, little silt, little gravel, brown, dry	
1	341			2					
				3					
2	340			3					
3	339								
4	338								
5	337					▼			
			SS-2	11	24		SM	Silty Sand (SM): Mostly sand, some silt, brown to grey, wet	
6	336			10					
				13					
7	335			10					Approximate Strata Change
8	334								
9	333								
10	332								
			SS-3	7	24		ML	Silt (ML): Mostly silt, few fine sand, trace clay, brown and grey, wet	
11	331			9					
				9					
12	330			10					
13	329								
14	328								
15	327								
			SS-4	14	6		ML	Silt (ML): Mostly silt, few clay, few fine sand, brown, moist	
16	326			16					Approximate Strata Change
				24			ML	Silt (ML): Mostly silt, few clay, grey, wet	
17	325			20					
18	324								
19	323								
20	322								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	38.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B38**
Total Depth: 40 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	4	24		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, wet	
21	321			5					
				5					
22	320			5					
23	319								
24	318								
25	317		SS-6	6	24		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, wet	
26	316			5					
				5					
27	315			4					
28	314								
29	313								
30	312		SS-7	4	24		ML	Silt (ML): Mostly silt, few clay, few fine sand, grey, wet	
31	311			7					
				7					
32	310			6					
33	309								
34	308								
35	307		SS-8	6	24		ML	Silt (ML): Mostly silt, some clay, few fine sand, grey and red, wet	
36	306			6					
				6					
37	305			7					
38	304		SS-9	4	24		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
39	303			5					
				11					
40	302			10				Test Boring Terminated at 40 feet	
41	301								
42	300								
43	299								
44	298								
45	297								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B39**
Total Depth: 42 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	26-Dec-2013	**Northing:**	1,042,911
Drill Rig:	Track CME 55LC	**Finish Date:**	26-Dec-2013	**Easting:**	518,713
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	344	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	10 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	8		SM	Silty Sand (SM): Mostly sand, little silt, brown, dry	
1	343			4					
				4					
2	342			5					
3	341								
4	340								Approximate Strata Change
5	339		SS-2	5	14		ML	Silt (ML): Mostly silt, little clay, trace fine sand, brown, moist	
6	338			4					
				5					
7	337			6					
8	336								
9	335								
10	334					▼			
			SS-3	6	19		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, wet	
11	333			6					
				7					
12	332			6					
13	331								
14	330								
15	329		SS-4	7	18		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, brown, wet	
16	328			8					
				11					
17	327			12					
18	326								
19	325								
20	324								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B39**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	5	22		ML	Silt (ML): Mostly silt, few clay, few fine sand, brown, wet	
				6					Approximate Strata Change
21	323			7			ML	Silt (ML): Mostly silt, little clay, trace fine sand, grey, wet	
				6					
22	322								
23	321								
24	320								
25	319		SS-6	6	19		ML	Silt (ML): Mostly silt, little clay, trace fine sand, grey, wet	
				7					
26	318			7					
				7					
27	317								
28	316								
29	315								
30	314		SS-7	6	18		ML	Silt (ML): Mostly silt, little clay, trace fine sand, grey, wet	
				7					
31	313			7					
				6					
32	312								
33	311								
34	310								
35	309		SS-8	5	14		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
				6					
36	308			6					
				5					
37	307								
38	306								
39	305								
40	304		SS-9	6	19		ML	Silt (ML): Mostly silt, little clay, few fine sand, grey, wet	
				6					
41	303			5					
				6					
42	302							Test Boring Terminated at 42 feet	
43	301								
44	300								
45	299								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B40**
Total Depth: 46.3 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	20-Dec-2013	**Northing:**	1,042,862
Drill Rig:	Truck Mobile B61	**Finish Date:**	20-Dec-2013	**Easting:**	518,859
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	355	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	6 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	28	12		SM	Silty Sand (SM): Mostly sand, some silt, trace gravel, brown, moist	cobble at surface
1	354			10					
				7					
2	353			11					
3	352								
4	351							occasional cobbles	
5	350								
			SS-2	8	8		GM	Silty Gravel with Sand (GM): Mostly gravel, little silt, little sand, brown and grey, moist	
6	349			14		▼			
				28					
7	348			32					
8	347								
9	346								Approximate Strata Change
10	345								
			SS-3	50	12		ML	Silt (ML): Mostly silt, few clay, trace gravel, brown and red, wet	
11	344			14					
				22					
12	343			28					
13	342							frequent cobbles	
14	341								
15	340								
			SS-4	7	16		ML	Silt (ML): Mostly silt, few clay, trace gravel, brown and red, wet	
16	339			20					
				15					
17	338			15					
18	337								
19	336								
20	335								Approximate Strata Change

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES:
1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.

ADDITIONAL NOTES:
1. Monitoring Well installed, well set at 18 ft
2. Groundwater reading taken on Dec 27, 2013
3. Relocated 11 ft North (approx 5 ft off edge of pavement)

DRILLING INFORMATION

Method:	HSA	0 to	45.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B40**
Total Depth: 46.3 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	2	18		ML	Silt (ML): Mostly silt, trace clay, grey, wet	
				10					
21	334			13					
				15					
22	333								
23	332								
24	331								
25	330		SS-6	5	16		ML	Silt (ML): Mostly silt, trace clay, grey, wet	
				6					
26	329			9					
				12					
27	328								
28	327								
29	326								
30	325		SS-7	9	12		ML	Silty Clay (CL-ML): Mostly silt, some clay, trace fine sand, grey, wet to moist	moisture content = 21.6%
				7					
31	324			8				PL = 18, LL = 24, PI = 6	
				9					
32	323								
33	322								
34	321								
35	320		SS-8	WR	18		ML	Silt (ML): Mostly silt, little clay, grey, wet to moist	
				WR					
36	319			7					
				7					
37	318								
38	317								
39	316								
40	315		SS-9	WR	4		ML	Silt (ML): Mostly silt, little clay, grey, wet to moist	
				50/.3					
41	314								
42	313								hard drilling
43	312							separate groundwater encountered in augers at 42.5 feet	
44	311								
45	310								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B40**
Total Depth: 46.3 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-10	9	10		ML	Silt with Gravel (ML): Mostly silt, some gravel, little sand, grey, wet	
46	309			14					
				54/.3				Fractured grey sandstone observed in spoon	
47	308							Test Boring Terminated at 46.3 due to Spilt Spoon Refusal	
48	307								
49	306								
50	305								
51	304								
52	303								
53	302								
54	301								
55	300								
56	299								
57	298								
58	297								
59	296								
60	295								
61	294								
62	293								
63	292								
64	291								
65	290								
66	289								
67	288								
68	287								
69	286								
70	285								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B41**
Total Depth: 42 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	27-Dec-2013	**Northing:**	1,042,814
Drill Rig:	Track CME 55LC	**Finish Date:**	27-Dec-2013	**Easting:**	519,032
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	369	**Longitude:**	--

Borehole Dia.:	6 in.
Water Depth:	8 ft.
Rock Depth:	NA ft.
Sample Hammer:	Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	5	6		SM	Silty Sand (SM): Mostly sand, little silt, brown, dry	1" Topsoil
1	368			8					
				9					
2	367			10					
3	366								
4	365								Approximate Strata Change
5	364		SS-2	3	9		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, brown and grey, moist	
6	363			5					
				7					
7	362			7					
8	361					▼			
9	360								
10	359		SS-3	4	14		ML	Silt (ML): Mostly silt, little clay, few fine sand, brown, wet	
11	358			4					
				4					
12	357			5					
13	356								
14	355								
15	354		SS-4	6	18		ML	Silt (ML): Mostly silt, trace clay, trace fine sand, grey, wet	
16	353			5					
				5					
17	352			6					
18	351								
19	350								
20	349								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	40.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B41**
Total Depth: 42 ft.

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-5	3	24		ML	Silt (ML): Mostly silt, few fine sand, trace clay, grey, moist	
21	348			5					
				7					
22	347			8					
23	346								
24	345								
25	344		SS-6	4	18		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, wet	
26	343			6					
				5					
27	342			7					
28	341								
29	340								
30	339		SS-7	4	24		ML	Silt (ML): Mostly silt, little clay, trace fine sand, grey, wet	
31	338			6					
				6					
32	337			10					
33	336								
34	335								
35	334		SS-8	5	24		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, wet	
36	333			10					
				15					
37	332			12					
38	331								
39	330								
40	329		SS-9	7	14		ML	Silt (ML): Mostly silt, few clay, trace fine sand, grey, wet	
41	328			7					
				8					
42	327			9					
								Test Boring Terminated at 42 feet	
43	326								
44	325								
45	324								

ADDITIONAL NOTES:

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B42**

Contractor: Aquifer Drilling and Testing	**Start Date:**	9-Dec-2013	**Northing:**	1,042,852	**Total Depth:** 8 ft.
Drill Rig: Truck Mobile B61	**Finish Date:**	9-Dec-2013	**Easting:**	519,152	**Borehole Dia.:** 6 in.
Driller: R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--	**Water Depth:** NA ft.
Inspector: Rob LaColla	**G.S. Elevation:**	380	**Longitude:**	--	**Rock Depth:** NA ft.
					Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
							GM	Silty Gravel with Sand (GM): Mostly gravel, some sand, little silt, brown, dry	cobbles at surface
1	379							Frequent cobbles	
2	378								
3	377								
4	376								
5	375								
6	374								
7	373							Test Boring 42A Terminated at 7' due to Auger Refusal	probable boulder
8	372							Test Boring 42 and 42B Terminated at 8' due to Auger Refusal	probable boulder
9	371							**Moved 9 feet North Along the Road - B42A - same material**	
10	370							**From 42 moved 9 feet South Along the Road - B42B - same material**	
11	369								
12	368								
13	367								
14	366								
15	365								
16	364								
17	363								
18	362								
19	361								
20	360								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	8.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B44**
Total Depth: 15 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: R. Buley
Inspector: Kurt Ilker

Start Date: 27-Dec-2013
Finish Date: 27-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 390

Northing: 1,042,647
Easting: 519,222
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 10 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	9		SM	Silty Sand with Gravel (SM): Mostly sand, little silt, little gravel, brown, moist	
1	389			2					
				3					
2	388			2					
3	387								
4	386								
5	385		SS-2	12	4		SM	Silty Sand with Gravel (SM): Mostly sand, some gravel, little silt, brown, moist	
6	384			50/.3				cobble	
7	383								
8	382								
9	381								
10	380					▼			
			SS-3	5	15		ML	Sandy Silt with Gravel (ML): Mostly silt, some sand, little gravel, brown, wet	
11	379			7					
				8					
12	378			7					
13	377		SS-4	6	20		ML	Sandy Silt with Gravel (ML): Mostly silt, some sand, little gravel, brown, wet	
14	376			7					
				7					
15	375			8				Test Boring Terminated at 15 feet	
16	374								
17	373								
18	372								
19	371								
20	370								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

DRILLING INFORMATION

Method:	HSA	0 to	13.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B45**
Total Depth: 13.3 ft.

Contractor:	Aquifer Drilling and Testing	**Start Date:**	27-Dec-2013	**Northing:**	1,042,557
Drill Rig:	Track CME 55LC	**Finish Date:**	27-Dec-2013	**Easting:**	519,371
Driller:	R. Buley	**El. Datum:**	NAVD 88	**Latitude:**	--
Inspector:	Kurt Ilker	**G.S. Elevation:**	395	**Longitude:**	--

Borehole Dia.:	6	in.
Water Depth:	5	ft.
Rock Depth:	NA	ft.
Sample Hammer:	Automatic	

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	2	7		SM	Silty Sand (SM): Mostly fine sand, little silt, trace clay, brown and grey, moist	frequent cobbles at surface
1	394			2					
				3					
2	393			2					
3	392								
4	391								
5	390					▼			
			SS-2	5	12		ML	Silt (ML): Mostly silt, few clay, few fine sand, brown and grey, wet	
6	389			7					
				7				cobble fragment in spoon tip	
7	388			23					
8	387							occasional cobble	
9	386								
10	385								
			SS-3	21	8		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, wet	
11	384			17					
				16					
12	383			24				cobble fragment in spoon	
13	382							frequent cobbles	
			SS-4	50/.3	0.3		SP	Poorly Graded Sand with Gravel (SP): Mostly sand, some gravel, trace silt, brown, wet	
14	381							Test Boring Terminated at 13.3 feet due to Split Spoon Refusal	probable cobble/small boulder
15	380								
16	379								
17	378								
18	377								
19	376								
20	375								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES: 1. Relocated 3 ft North of stake

DRILLING INFORMATION

Method:	HSA	0 to	13.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

THE Chazen COMPANIES
547 River Street
Troy, New York 12180
Phn: (518) 273-0055
Fax: (518) 273-8391

PROJECT: Nevele Development
LOCATION: Ellenville, NY
CLIENT: Nevele Investors, LLC
PROJECT NO.: 31225.02

Test Boring No.: **B46**
Total Depth: 10 ft.

Contractor: Aquifer Drilling and Testing
Drill Rig: Track CME 55LC
Driller: M. Tatum
Inspector: Kurt Ilker

Start Date: 27-Dec-2013
Finish Date: 27-Dec-2013
El. Datum: NAVD 88
G.S. Elevation: 355

Northing: 1,045,170
Easting: 517,018
Latitude: --
Longitude: --

Borehole Dia.: 6 in.
Water Depth: 3 ft.
Rock Depth: NA ft.
Sample Hammer: Automatic

Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	SPT Blows	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Field Notes, Comments:
			SS-1	1	16		ML	Silt (ML): Mostly silt, trace clay, brown, wet	
1	354			2					
				4					
2	353			10					
3	352					▼			
4	351								
5	350								
			SS-2	3	20		ML	Silt (ML): Mostly silt, few clay, brown and red, wet	
6	349			5					
				6				thin layers of red and brown clay	
7	348			9					
8	347								
			SS-3	2			ML	Silt (ML): Mostly silt, few clay, brown and red, wet	
9	346			8					
				7				thin layers of red and brown clay	
10	345			11					
								Test Boring Terminated at 10 feet	
11	344								
12	343								
13	342								
14	341								
15	340								
16	339								
17	338								
18	337								
19	336								
20	335								

METHODS: **HSA**- Hollow Stem Auger, **RWH**- Rotary Wash, **SSA**- Solid Stem Auger
SAMPLE TYPES: **SS**-Split Spoon, **RC**-Rock Core, **GS**-Grab, **ST**-Shelby Tube
STANDARD NOTES: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 25 feet.
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
ADDITIONAL NOTES:

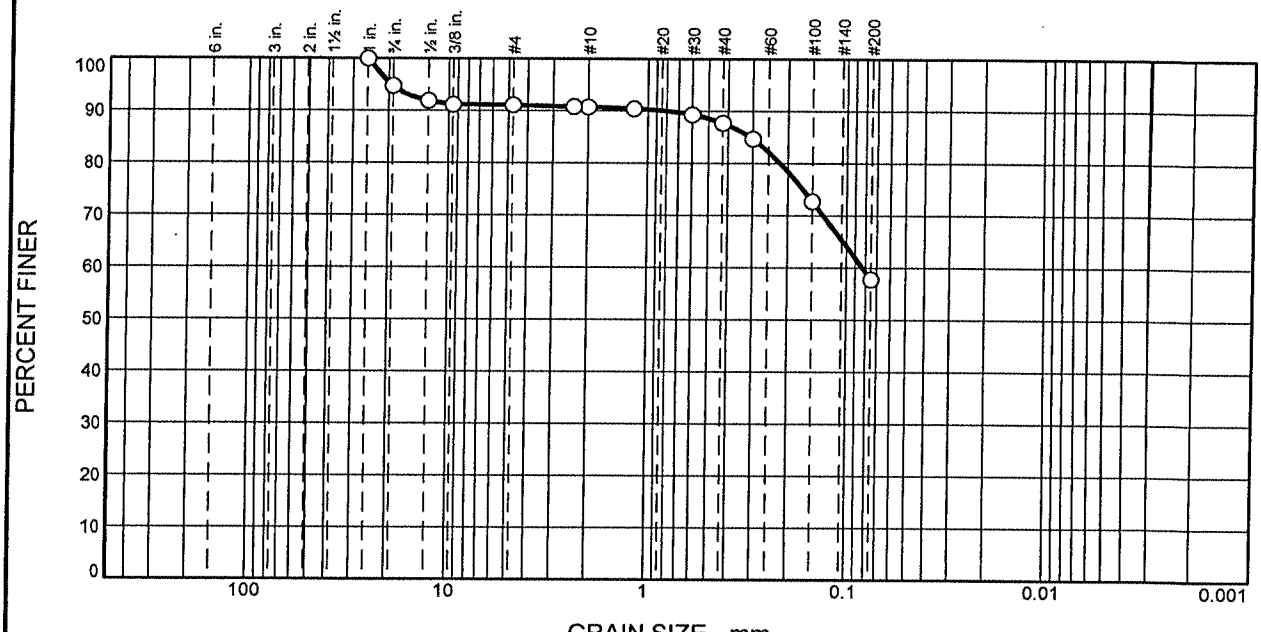
DRILLING INFORMATION

Method:	HSA	0 to	8.0
Method:			
	Casing	Sample	Core
Type	-	SS	
Int Diam.	--	2"	
Weight	--	140 lb	
Fall	--	30"	

Appendix B:
Laboratory Results

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	5	4	0	3	30	58	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
1	100		
.75	95		
.5	92		
.375	91		
#4	91		
#8	91		
#10	91		
#16	90		
#30	89		
#40	88		
#50	85		
#100	73		
#200	58		

* (no specification provided)

Soil Description

Brown Silt/Clay; some f Sand.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= 0.3088 D_{60}= 0.0829 D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hydrometer

Location: B1, S2, 5-7 ft
Sample Number: AT354S616 **Depth:** 5-7 ft

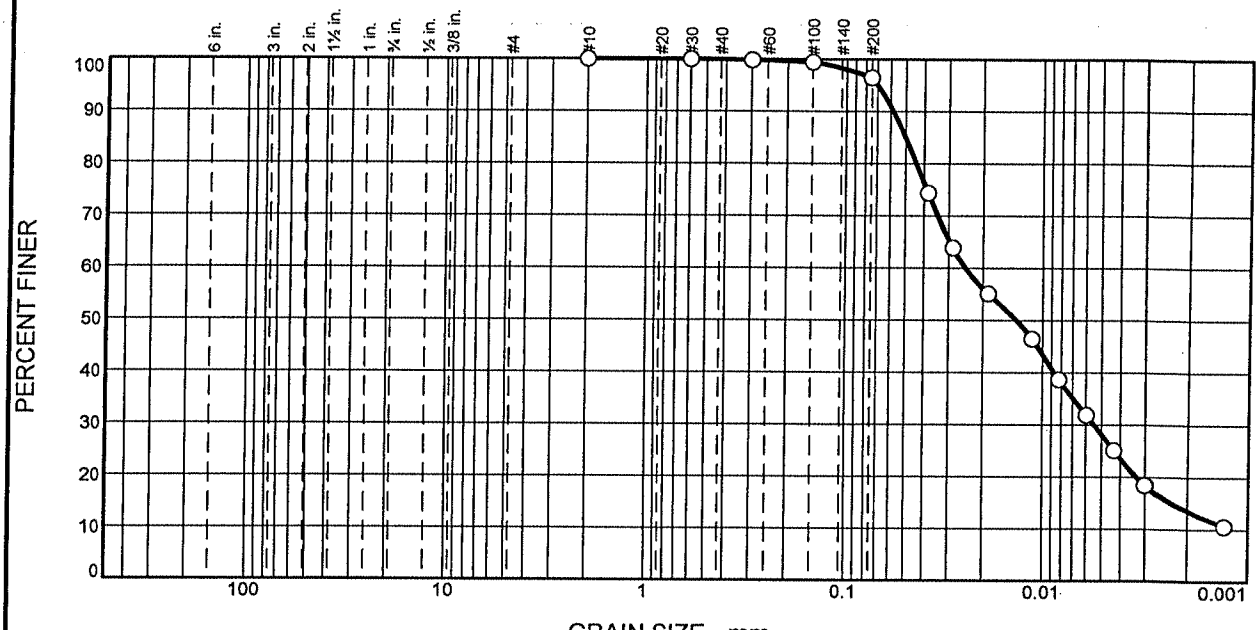
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-616-01-14 **Date:** 1/22/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	4	68	28

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
#10	100		
#30	100		
#50	100		
#100	99		
#200	96		

* (no specification provided)

Soil Description

Grey Silt/Clay; trace f Sand.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= 16 LL= 17 PI= 1

Coefficients

D_{85}= 0.0503 D_{60}= 0.0246 D_{50}= 0.0136
D_{30}= 0.0055 D_{15}= 0.0023 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO= A-4(0)

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 with hydrometer

Location: B1, S1, 20-22 ft
Sample Number: AT354S617 **Depth:** 20-22 ft

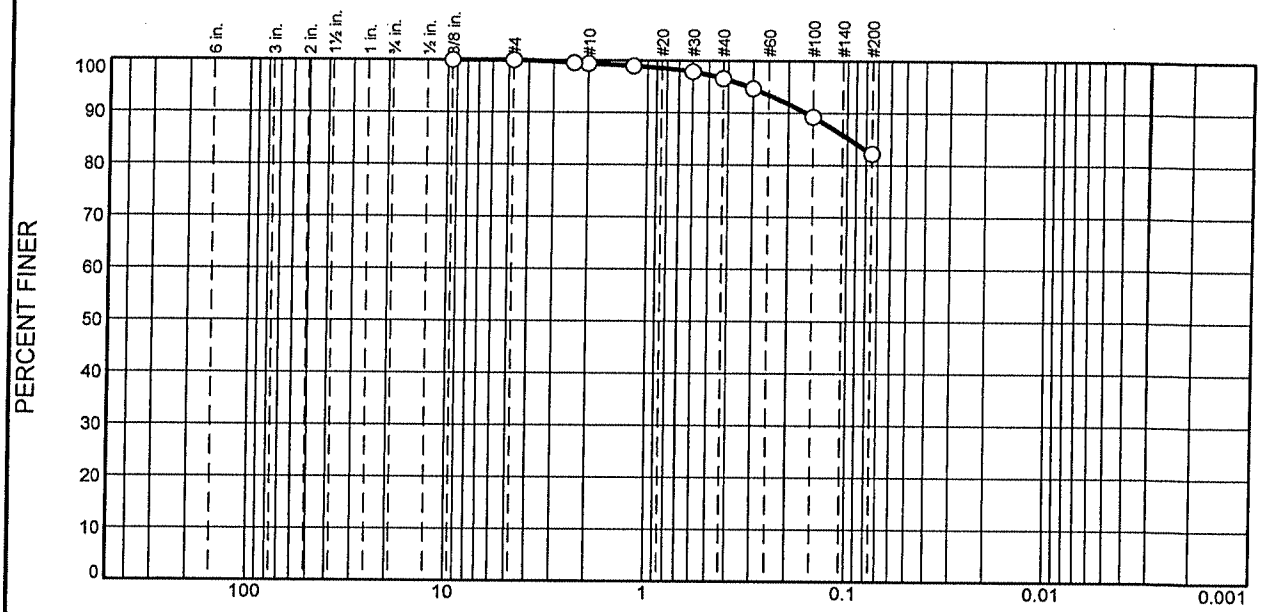
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-617-01-14 **Date:** 1/23/2014

Tested by: RF Date: 1/23/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	1	2	15	82	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.375	100		
#4	100		
#8	100		
#10	99		
#16	99		
#30	98		
#40	97		
#50	95		
#100	89		
#200	82		

* (no specification provided)

Soil Description

Brown/Grey Silt/Clay; little f Sand.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= 0.0978 D_{60}= D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hydrometer

Location: B3, S4, 15-17 ft
Sample Number: AT354S618 **Depth:** 15-17 ft

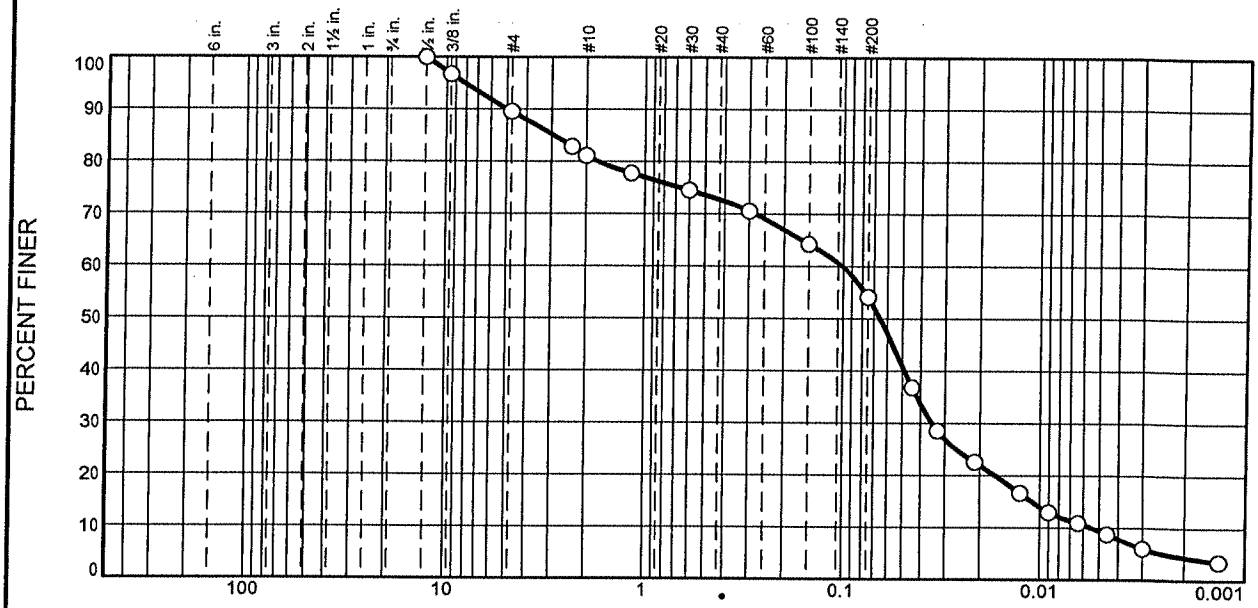
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-618-01-14 **Date:** 1/22/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/21/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	10	9	8	19	45	9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.5	100		
.375	97		
#4	90		
#8	83		
#10	81		
#16	78		
#30	74		
#50	71		
#100	64		
#200	54		

* (no specification provided)

Soil Description

Grey Sandy Silt.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{85}= 2.9198 D_{60}= 0.1008 D_{50}= 0.0652
D_{30}= 0.0349 D_{15}= 0.0110 D_{10}= 0.0055
C_u= 18.32 C_c= 2.19

Classification

USCS= ML AASHTO= A-4(0)

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 with hydrometer.
Moisture Content = 15.4%

Location: B3, S5, 20-22 ft
Sample Number: AT354S619 **Depth:** 20-22 ft

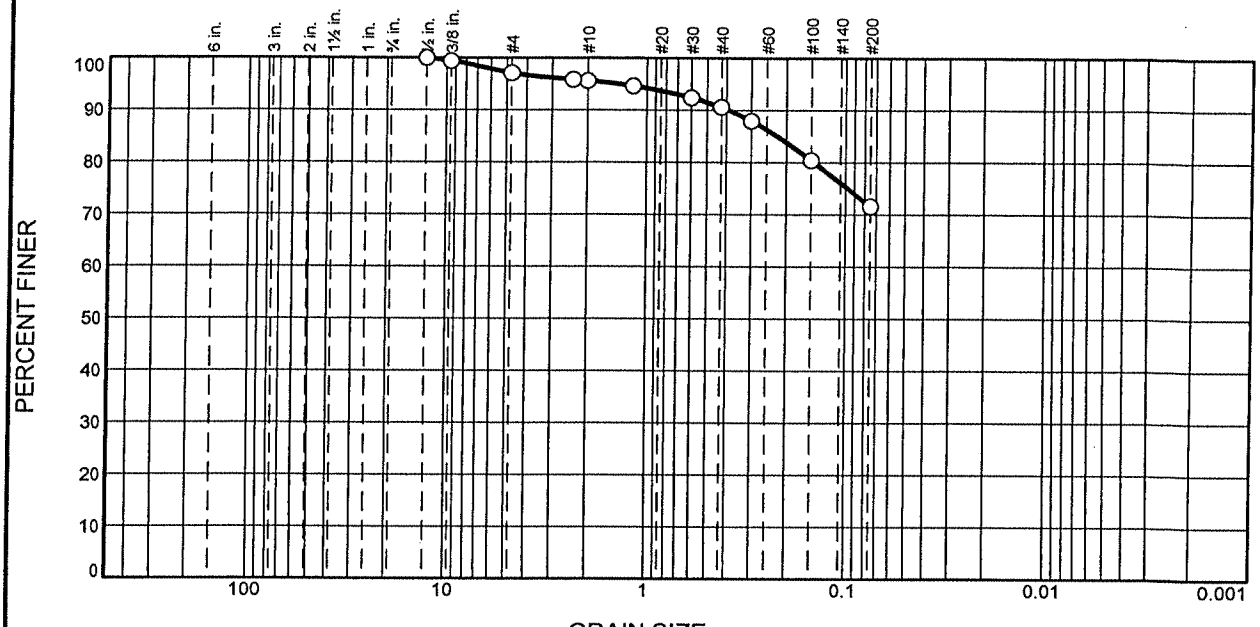
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-619-01-14 **Date:** 1/24/2014

Tested by: RF Date: 1/23/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	3	1	5	19	72	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.5	100		
.375	99		
#4	97		
#8	96		
#10	96		
#16	95		
#30	92		
#40	91		
#50	88		
#100	80		
#200	72		

* (no specification provided)

Soil Description

Brown Silt/Clay; little f Sand.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= 0.2220 D_{60}= D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hydrometer

Location: B6, S2, 5-7 ft
Sample Number: AT354S620 **Depth:** 5-7 ft

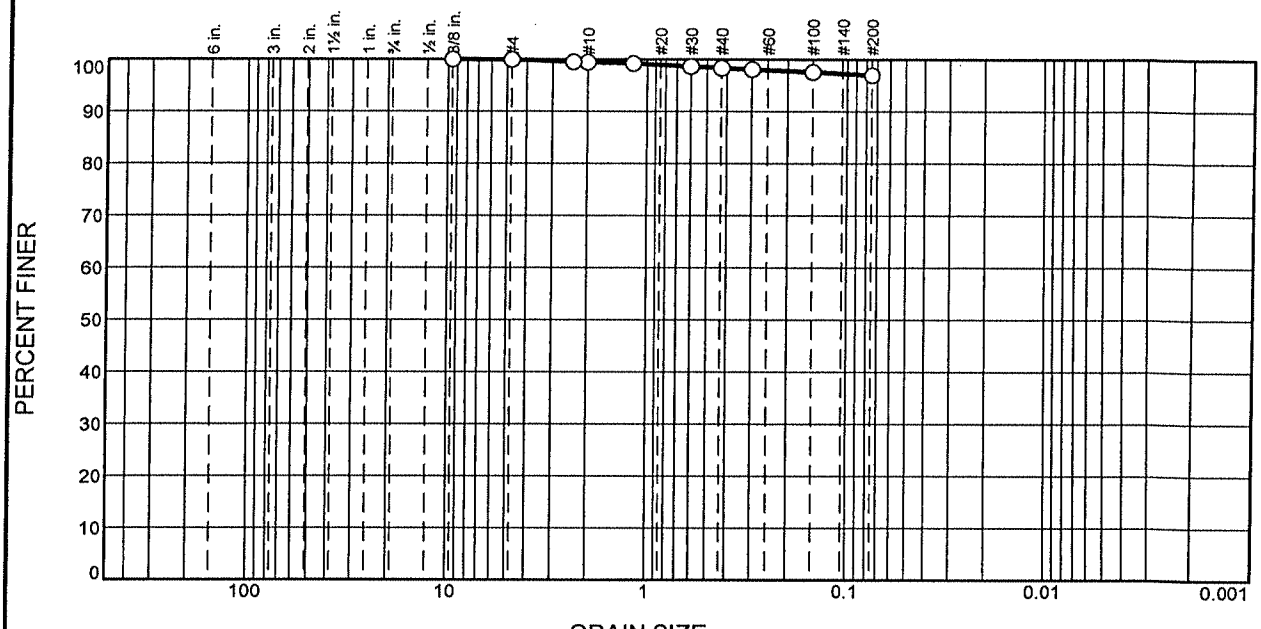
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-620-01-14 **Date:** 1/22/2014

Tested by: RJF Date: 1/21/14
Reviewed by: RJF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	1	1	1	97	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.375	100		
#4	100		
#8	100		
#10	99		
#16	99		
#30	99		
#40	98		
#50	98		
#100	98		
#200	97		

* (no specification provided)

Soil Description

Grey Silt/Clay.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= D_{60}= D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hydrometer

Location: B8, 15-17 ft
Sample Number: AT354S621 **Depth:** 15-17 ft

ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

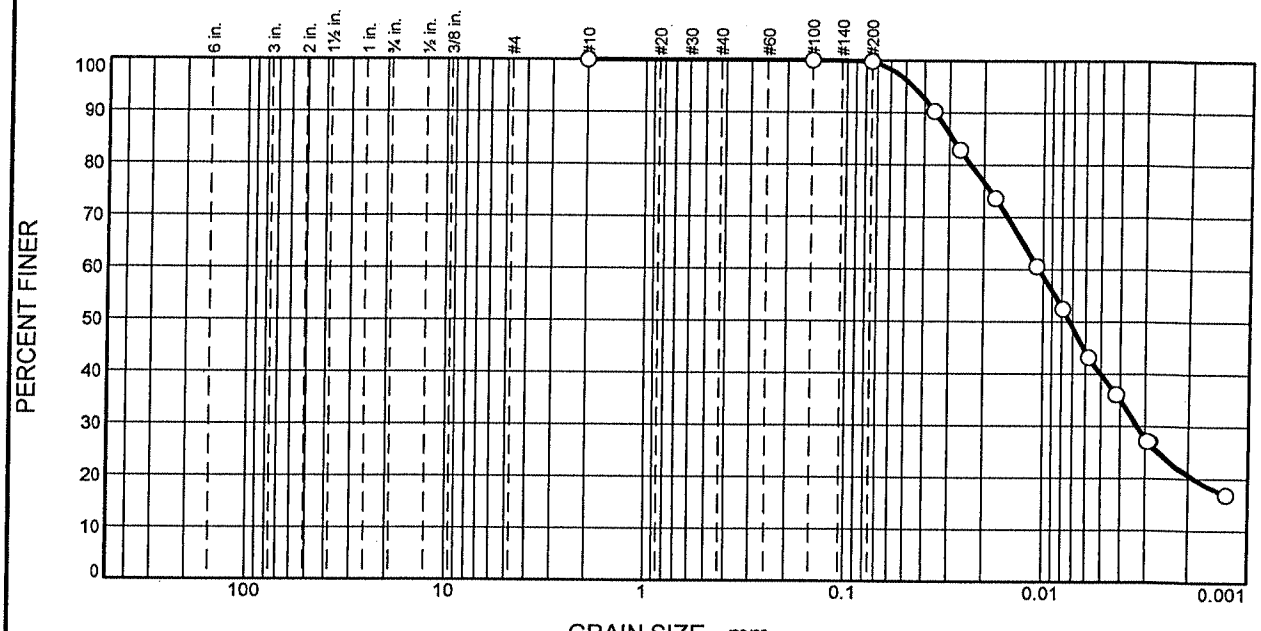
Client: The Chazen Companies
Project: Laboratory Analysis

Report No: AT354SL-621-01-14 **Date:** 1/22/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	0	60	40

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
#10	100		
#100	100		
#200	100		

* (no specification provided)

Soil Description

Grey Silty Clay
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= 18 LL= 24 PI= 6

Coefficients

D_{85}= 0.0288 D_{60}= 0.0105 D_{50}= 0.0073
D_{30}= 0.0033 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= CL-ML AASHTO= A-4(4)

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 with hydrometer.
Moisture Content = 20.1%

Location: B8, 60-62 ft
Sample Number: AT354S622 **Depth:** 60-62 ft

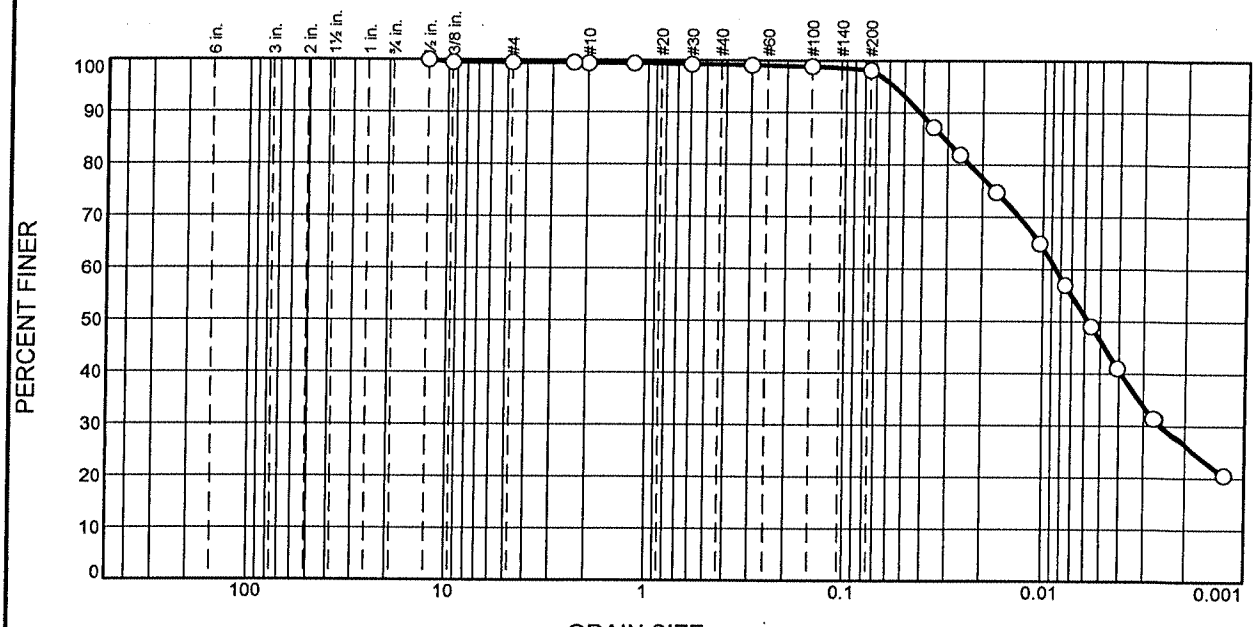
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-622-01-14 **Date:** 1/23/2014

Tested by: RF Date: 1/23/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	1	0	0	1	52	46

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.5	100		
.375	99		
#4	99		
#8	99		
#10	99		
#16	99		
#30	99		
#50	99		
#100	99		
#200	98		

* (no specification provided)

Soil Description

Brown Silty Clay
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= 18 LL= 25 PI= 7

Coefficients

D_{85}= 0.0311 D_{60}= 0.0085 D_{50}= 0.0058
D_{30}= 0.0025 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= CL-ML AASHTO= A-4(5)

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 with hydrometer

Location: B8, 95-97 ft
Sample Number: AT354S623 **Depth:** 95-97 ft

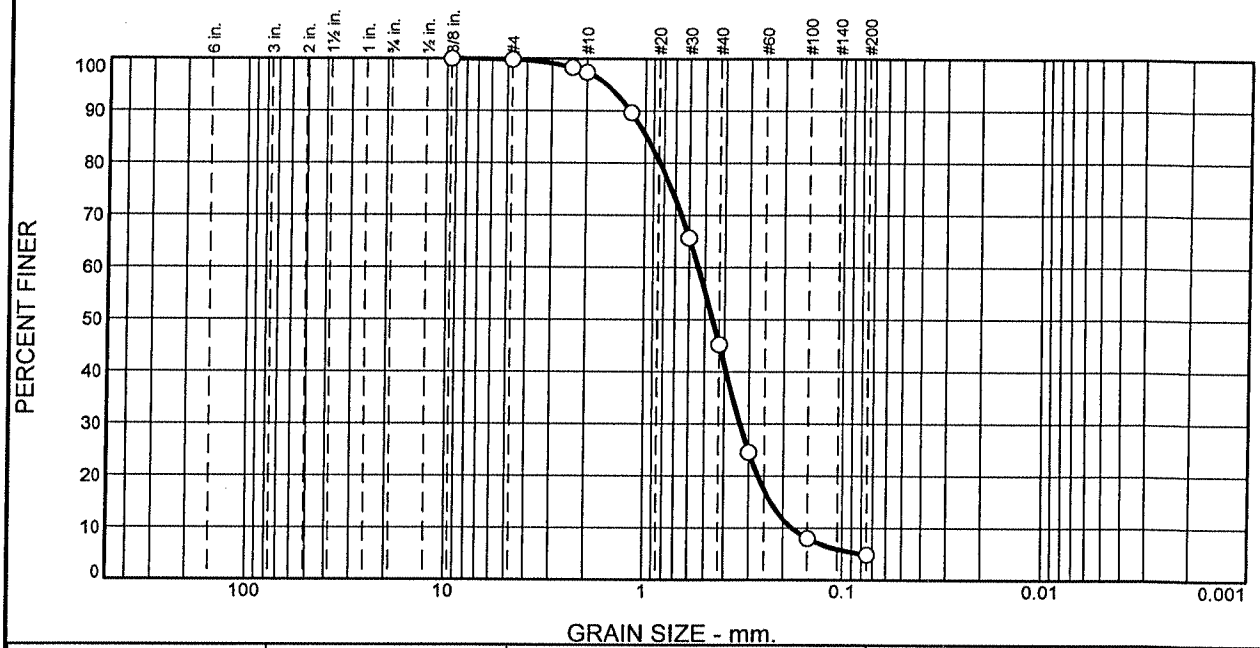
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-623-01-14 **Date:** 1/24/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	3	52	40	5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.375	100		
#4	100		
#8	98		
#10	97		
#16	90		
#30	66		
#40	45		
#50	25		
#100	8		
#200	4.8		

* (no specification provided)

Soil Description

Brown mf Sand.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= 0.9809 D_{60}= 0.5410 D_{50}= 0.4582
D_{30}= 0.3323 D_{15}= 0.2320 D_{10}= 0.1803
C_u= 3.00 C_c= 1.13

Classification

USCS= SP AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hydrometer.

Location: B12, 25-27 ft
Sample Number: AT354S624 **Depth:** 25-27 ft

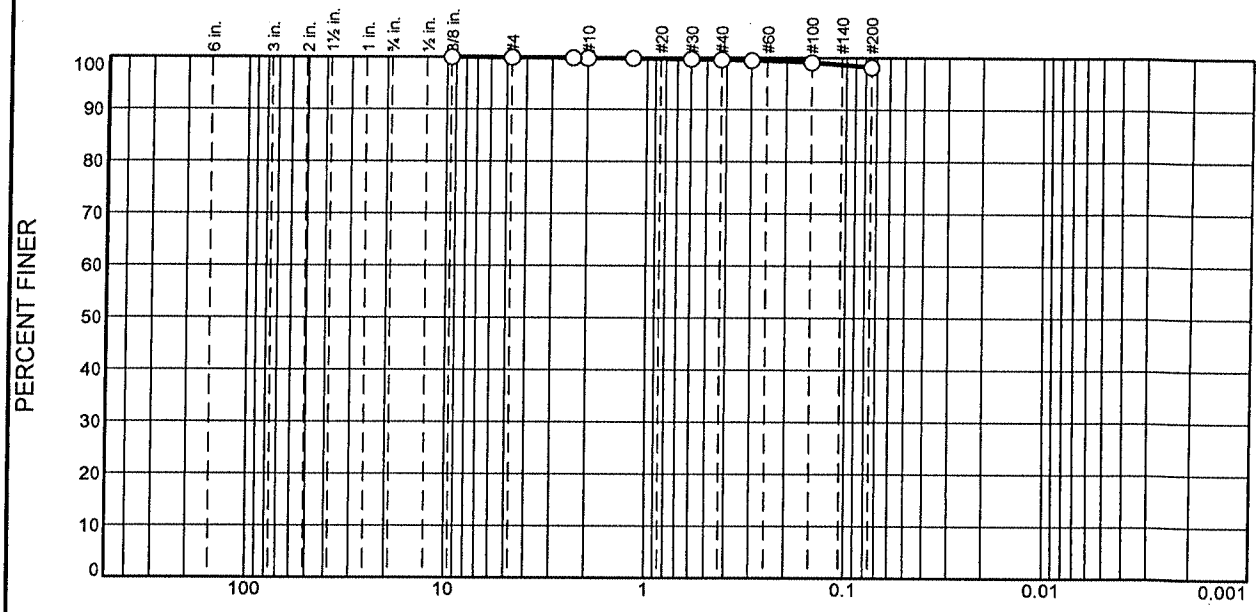
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-624-01-14 **Date:** 1/22/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	2	98	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.375	100		
#4	100		
#8	100		
#10	100		
#16	100		
#30	100		
#40	100		
#50	99		
#100	99		
#200	98		

* (no specification provided)

Soil Description

Grey Silt/Clay.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= D_{60}= D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hydrometer.

Location: B13, 35-37 ft
Sample Number: AT354S625 **Depth:** 35-37 ft

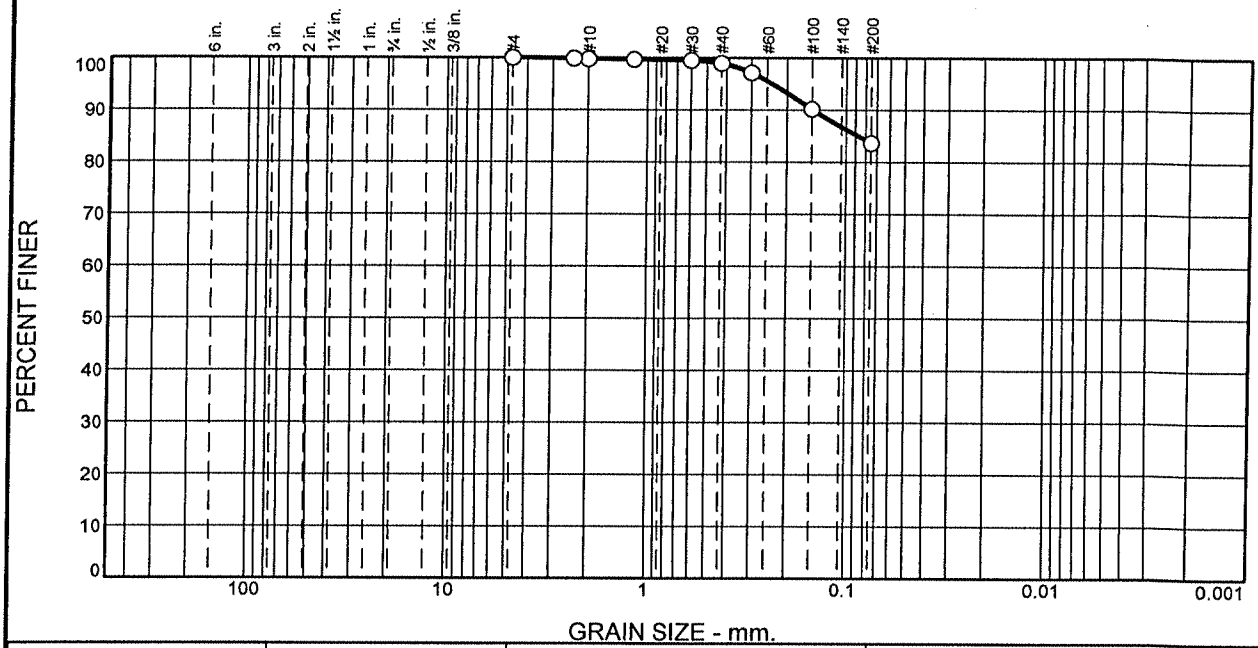
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-625-01-14 **Date:** 1/22/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	1	15	84	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
#4	100		
#8	100		
#10	100		
#16	100		
#30	99		
#40	99		
#50	97		
#100	90		
#200	84		

* (no specification provided)

Soil Description

Brown Silt/Clay; little f Sand
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= 0.0872 D_{60}= D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hydrometer

Location: B14, 5-7 ft
Sample Number: AT354S626 **Depth:** 5-7 ft

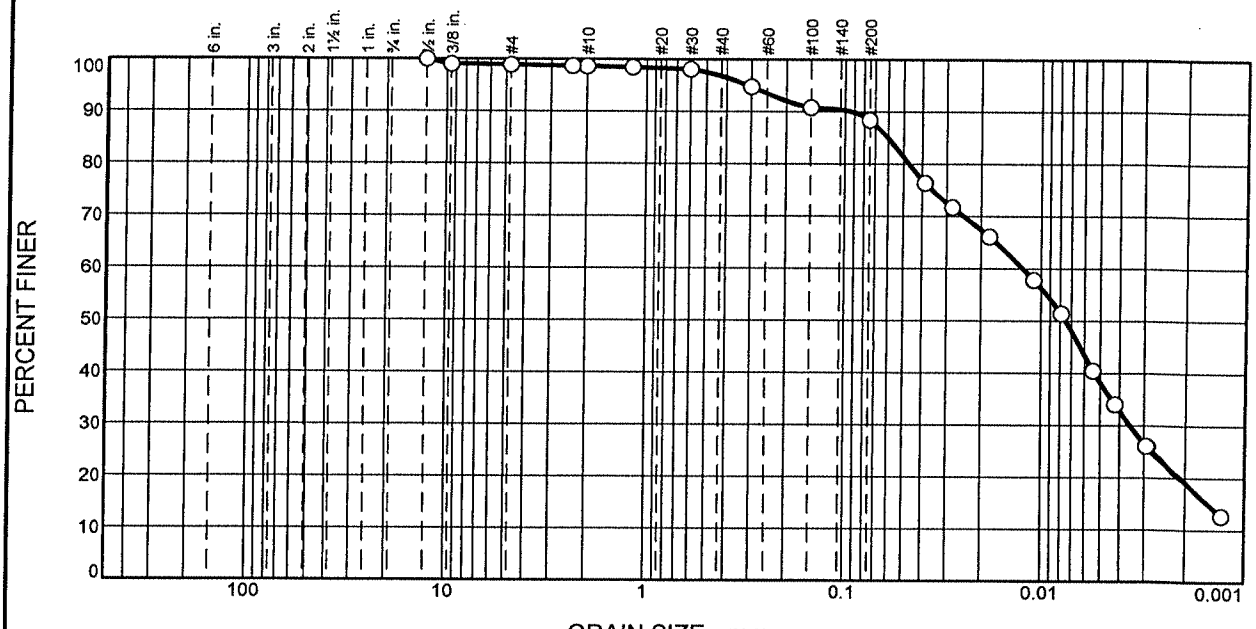
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-626-01-14 **Date:** 1/22/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	1	0	2	9	50	38

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
.5	100		
.375	99		
#4	99		
#8	99		
#10	99		
#16	98		
#30	98		
#50	95		
#100	91		
#200	88		

* (no specification provided)

Soil Description

Grey Silty Clay.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= 17 LL= 22 PI= 5

Coefficients

D_{85}= 0.0602 D_{60}= 0.0124 D_{50}= 0.0075
D_{30}= 0.0035 D_{15}= 0.0015 D_{10}=
C_u= C_c=

Classification

USCS= CL-ML AASHTO= A-4(2)

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 with hydrometer

Location: B29, 38-40 ft
Sample Number: AT354S627 **Depth:** 38-40 ft

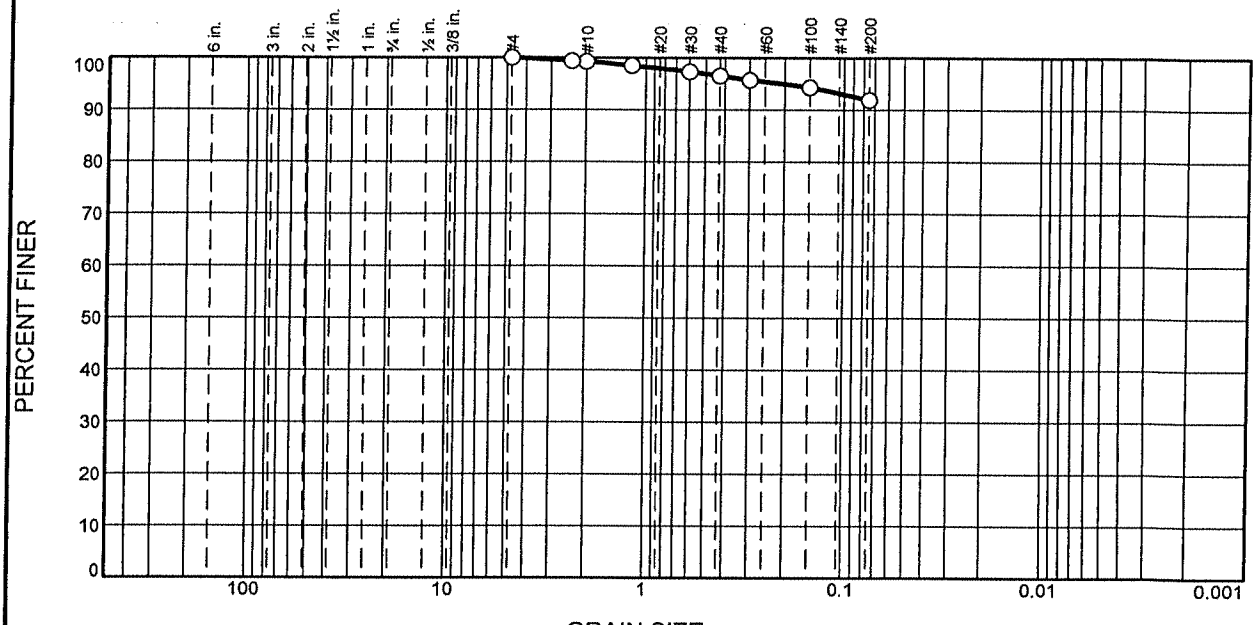
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-627-01-14 **Date:** 1/24/2014

Tested by: RF Date: 1/24/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	1	2	5	92	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
#4	100		
#8	99		
#10	99		
#16	98		
#30	97		
#40	97		
#50	96		
#100	94		
#200	92		

* (no specification provided)

Soil Description

Brown Silt/Clay; trace f Sand
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= D_{60}= D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 without hyddrometer.
Moisture Content = 21.1%

Location: B30, 15-17 ft
Sample Number: AT354S628 **Depth:** 15-17 ft

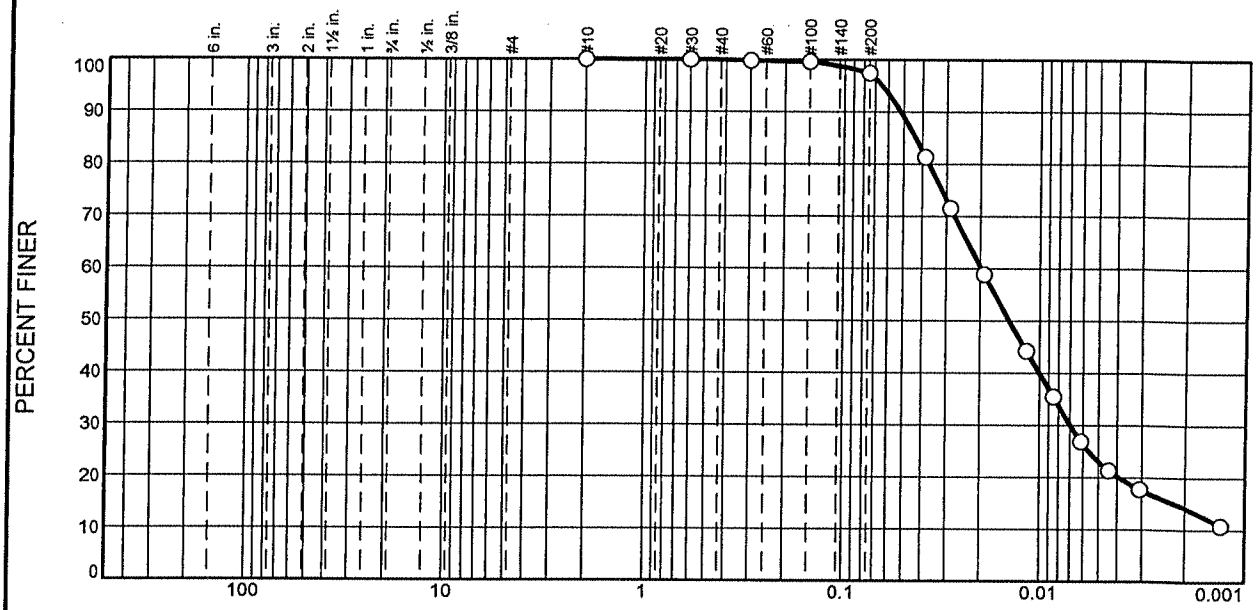
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-628-01-14 **Date:** 1/22/2014

Tested by: RF Date: 1/21/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	3	74	23

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
#10	100		
#30	100		
#50	100		
#100	100		
#200	97		

* (no specification provided)

Soil Description

Brown Silt
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= 21 LL= 24 PI= 3

Coefficients

D_{85}= 0.0434 D_{60}= 0.0198 D_{50}= 0.0142
D_{30}= 0.0070 D_{15}= 0.0022 D_{10}=
C_u= C_c=

Classification

USCS= ML AASHTO= A-4(2)

Remarks

Sampled and delivered by the client on 1/16/2014
ASTM D 422 with hydrometer.
Moisture Content = 24.9%

Location: B33, 15-17 ft
Sample Number: AT354S629 **Depth:** 15-17 ft

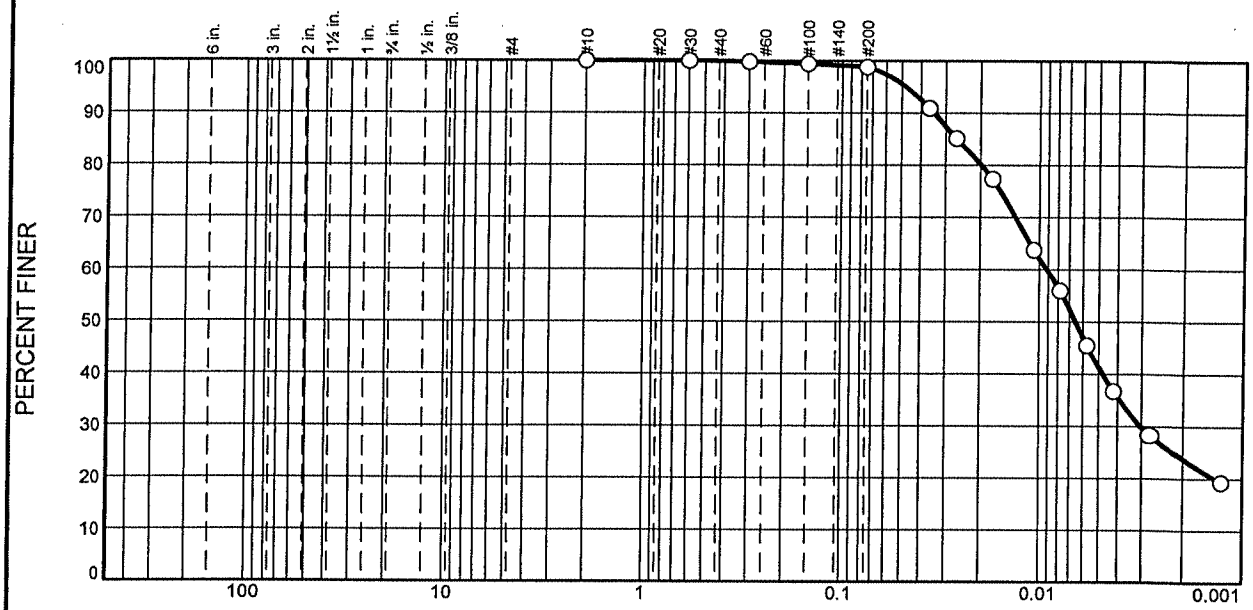
ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-629-01-14 **Date:** 1/23/2014

Tested by: RF Date: 1/24/14
Reviewed by: RF Date: 1/27/14

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	1	58	41

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
#10	100		
#30	100		
#50	100		
#100	99		
#200	99		

* (no specification provided)

Soil Description

Grey Silty Clay.
Nevele Development.
Job No. 31225.02

Atterberg Limits

PL= 18 LL= 24 PI= 6

Coefficients

D_{85}= 0.0263 D_{60}= 0.0091 D_{50}= 0.0065
D_{30}= 0.0030 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= CL-ML AASHTO= A-4(4)

Remarks

Sampled and delivered by the client on 1/16/2014.
ASTM D 422 with hydrometer.
Moisture Content = 21.6%

Location: B40, 30-32 ft
Sample Number: AT354S630 **Depth:** 30-32 ft

ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

Client: The Chazen Companies
Project: Laboratory Analysis
Report No: AT354SL-630-01-14 **Date:** 1/24/2014

Tested by: RJF Date: 1/24/14
Reviewed by: RJF Date: 1/27/14