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# TIME-WARNER CABLE, INC.
# 151 MOUNT HOPE AVENUE
# ROCHESTER, NEW YORK

## GEOTECHNICAL EVALUATION

Prepared for

*SWBR Architects, P.C.*

By: _____
Jeffrey D. Netzband, P.E.
Vice President

STATE OF NEW YORK ★ JEFFREY D. NETZBAND ★ LICENSED PROFESSIONAL ENGINEER 074888

March 2004
2746.0

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# GEOTECHNICAL EVALUATION

## 1.0 INTRODUCTION

This report outlines our geotechnical evaluation for Office Building No. 2 for Time Warner Cable, Inc. in Rochester, New York. We base this evaluation on our review of U.S.G.S. topographic and geologic data; old soil data collected on the parcel; new test borings; laboratory test results; and consultation with the design team. We intend this report for use exclusively on this project.

SWBR Architects, P.C. retained Foundation Design, P.C. on behalf of Time-Warner Cable, Inc. to provide the services outlined in our February 14, 2004 *Geotechnical Services Proposal, 2746.0.* Our services included coordinating, executing, and observing the test boring exploration; laboratory testing of selected soil samples; and evaluating the results. We agreed to submit this report outlining our findings, conclusions, and recommendations. Specifically, we provide foundation and pavement recommendations. We also discuss site preparation requirements; fill and backfill materials; compaction standards; recommended pile foundation and allowable capacities; lateral earth pressures for retaining walls; seismic design criteria; water control; and trench stability.

Attached to the end of this report is an ASFE paper entitled "Important Information about your Geotechnical Engineering Report". It describes how we intend this report to be used. We will continue to work cooperatively with you and other project principals and interested parties to achieve win/win solutions that benefit all.

## 2.0 SUMMARY

Office Building No. 2 will be located southwest of the existing Time-Warner Cable, Inc. building on Mt. Hope Avenue. It will consist of a 46,000± square foot (gross area), two-story, steel-framed, slab-on-grade structure. A future third floor is currently envisioned. The new structure will house administrative offices, with some cable storage on the ground floor. The ground floor will roughly match existing grades and the adjacent building around elevation 518.0. Paved parking will surround the structure.

The following is a brief description of major issues addressed in this report:

- A feeder canal and turning basins for the old Erie Canal, then a railroad yard previously occupied this parcel.
- We encountered a subsurface profile consisting of cinder and ash fill, organic silt and sand, glacial till, then bedrock.
- It is our opinion that the in-place fill is not suitable to support the proposed floor and foundation loads. We recommend supporting the structure on HP10x57 steel H-piles bearing on the glacial till or bedrock.
- It is our opinion that the on-site soil is not suitable for reuse as structural fill. Plan to dispose of the on-site soil excavated for utilities and site grading as recommended by your environmental engineers. Budget to use an imported material, close in gradation to N.Y.S.D.O.T. Item 203.07 for all mass fill and foundation and utility backfill.
- Pavements and sidewalks constructed over the in-place fill will have a shorter than 'normal' pavement life and higher than 'normal' maintenance costs. Plan for a thicker than 'normal' pavement/sidewalk sections.

## 3.0 SITE CONDITIONS

The Time-Warner Cable, Inc. Office Building No. 2 will be located at 151 Mount Hope Avenue (NYS Route 15) in Rochester, New York. The existing Time-Warner Cable, Inc. office building lies to the northeast. The Genesee Gateway Park, along the Genesee River, forms the northwestern boundary. River Park Commons lies to the southwest. A General Location Plan, on 1997 N.Y.S.D.O.T. topographic mapping, is in Appendix A.

The site is adjacent to the Genesee River and was prone to flooding until the water level of the river was regulated. The site has seen several uses over the years. A north-south trending Genesee River Feeder Canal once paralleled Mount Hope Avenue (see plan in Appendix A). Boat basins were located between the river and canal. After the Erie Canal was abandoned, the basins and the feeder canal were filled and the site was developed by the Erie-Lackawanna Railroad. The rail yard was abandoned and the associated buildings demolished around 1973. A 20 foot deep, 78-inch diameter sewer was installed along the east side of the property during this period. The site has been vacant ever since.

The north end of the proposed building area is currently paved parking for the existing office building. Company trucks occupy the northwest quadrant; car parking is to the northeast. The southern two-thirds of the site is grass covered. Note that during our exploration, the site had up to two feet of snow cover. A few trees then a 'river walk' are located to the west of the proposed building footprint. The site is fairly flat with less than three feet of grade change across the proposed building location.

## 4.0 EXPLORATION AND TESTING

We executed the exploration program between February 18 and February 23, 2004. The exploration consisted of six test borings (B04-1 through B04-6) and four test pits (TP04-1 through TP04-4). Target Drilling, provided a CME truck-mounted drill rig for the test boring work. They advanced the test borings using hollow stem auger casings. The drillers recovered soil samples continuously to ten to twelve feet and at five-foot intervals

after that to completion. The test borings ranged from 21.8 to 33.0 feet deep. A two-inch diameter groundwater observation well was installed at test boring B04-1. Ten-feet of NX size rock core was obtained at test boring B04-2, B04-5, and B04-6 for a rock quality determination.

We performed test pits TP04-1 through TP04-4 on January 24, 2004. K.W. Fennell Excavating provided a Cat 318 track mounted excavator for the test pit work. Our staff logged the soil profiles and collected representative soils samples. The test pit depths ranged from 11.0 feet to 14.0 feet deep.

Our staff provided layout and an elevation survey of the boring and test pit locations. We dimensioned the locations from the existing building. We referenced the surface elevations to the finished floor of the existing Time Warner office building, assuming a floor grade at elevation 518.00. A Boring and Test Pit Location Plan is in Appendix A. The boring logs and the test pit logs are in Appendix B.

Additional soil information was available for our review and use in this report. Day Environmental, Inc. performed sixteen geo-probes (TB-series) and two test borings (MW-series) on the parcel in 2002. These geo-probe and boring locations are plotted on the plan in Appendix A; the Day Environmental, Inc. geo-probe and boring logs are in Appendix C.

Rochester Drilling Company, Inc. performed 22 test borings in 1982. Nine of these borings are within/adjacent to the parcel. A plan, showing the 1982 test boring locations relative to the approximate existing office building location, is in Appendix D. Copies of these logs are also enclosed in Appendix D.

We selected representative soil samples for laboratory analysis. Basic Foundations, Inc. performed two moisture content tests, six organic content tests, and two fine sieve analysis. The test results are discussed in Section 5.0 below. The Basic Foundations, Inc. laboratory report is in Appendix E.

## 5.0 SOIL, BEDROCK, AND GROUNDWATER CONDITIONS

The following interpretations of the soil, bedrock, and groundwater conditions are based on the widely spaced test borings, geo-probes, and test pits; our site observations; and previous work in the area. Variations from the inferred subsurface profile are possible. Call us immediately if such variations are found during construction so we can assess the impact on our recommendations.

We encountered a soil profile consisting of asphalt over mixed fills, organic silt, glacial till then dolomite bedrock. The topsoil thickness, where definable from the underlying fill, ranged from 12 to 18 inches. The underlying fill consists of mixed earth (silt, sand, gravel, cobbles, boulders), topsoil, ash, coal, slag, glass, wire, brick, concrete fragments, and other deleterious material. An odor within the fills was detected in boring B04-3. Day Environmental, Inc. was called to the site to monitor a test pit excavated at this location, to collect pertinent soil samples, and provide guidance on backfilling of the excavation. Petroleum odors were detected at several of the prior geo-probe locations; see Day Environmental, Inc. report for details on how the environmental issues will impact the project. The fill extends six to over fourteen feet below the surface.

The upper, natural soils consist of loose to firm silt with a trace to little clay, trace to little sand, and trace organic. Tested samples contained 1.0 to 31.4 percent organic matter, with associated moisture contents ranging from 17.3 to 29.7 percent. Compact to dense glacial till underlies the organic silt at most locations. The tested till samples classify as silty sand (SM). Moisture contents of the tested till samples range from eight to nine percent. Large boulders were encountered within the till and at the top of the bedrock.

The drillers encountered bedrock 22.0 to 25.0 feet below the surface. The drillers found the upper three to five feet of the bedrock highly fractured. RQD measurements, an indication of the rock quality, were poor in the upper three to six feet of the bedrock, but improved with depth. The percent recovered in the 'better' deeper rock was between 60 and 85 percent. RQD measurements in this zone were between 50 and 70 percent.

Geologic mapping shows bedrock as the Lockport Group of Formations. These formations consist of horizontally bedded dolomites. The percent rock core recovered and RQD measurements, even for the 'better' rock, were low for this formation.

Groundwater was generally encountered below ten feet at the test locations. Water flowed into two of the test pits around ten feet below the surface. We recorded the groundwater elevations at the observation well installed at test boring B04-1. Measurements were taken on March 3, 2004 and March 16, 2004. The recorded water levels are tabulated below:

**Table No. 1 – Groundwater Levels**

| Boring Number | Surface Elevation | Date | |
|---|---|---|---|
| | | March 3, 2004 | March 16, 2004 |
| B04-1 | 516.8 | 504.4 | 505.0 |

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The major issue we foresee with the proposed construction is the fill. The N-values reported in the upper two feet are typically below five. The organic content of the silt is high. It is our opinion that this fill will consolidate long-term if a new load is applied. If the proposed new structure were supported on the fill, we believe that it would experience unacceptable differential settlement of foundations and floor slabs.

We recommend supporting the new structure on a deep foundation system, bearing on the bedrock 22 to 25 feet below the surface. We considered geo-piers, caissons, and driven piles to support the structure. Geo-piers were rejected due to groundwater conditions. Water control, boulders, and disposal of waste soils would, in our opinion, make caissons non-competitive. Our opinion is that a driven pile foundation system would reduce the owner exposure to potential environmental premium costs during construction. We considered a pipe pile, but rejected that type of system due to the potential for obstructions in the fill.

We recommend supporting the building and floor slab with HP10x57 steel H-piles. For estimating, assume that the piles will be driven to elevation 494± 2 feet. Assume an allowable pile capacity of 50 tons (100 tons ultimate). NOTE: This pile is structurally capable of supporting up to 100 tons allowable (200 tons ultimate) per the NYS Building Code. We anticipate that long-term consolidation of the fill may account for an additional 10 tons of down-drag on the pile (in excess of the 50 tons allowable). Although a lighter pile may suffice structurally, we recommend using the heavier pile due to the potential for obstruction in the fill and for out-of-plan piles. Where out-of-plan piles occur and the structural engineer determines additional capacity is needed, piles may be driven to an allowable capacity of 80 tons on a case by case basis.

Floors constructed over the fill would also experience unacceptable long-term settlement, especially in warehouse/storage areas. We recommend that the floor consist of a structural slab supported by the H-piles. Sub-floor utilities should be hung from the slab to reduce the risk of pipe separation as the underlying fill consolidates.

Pavements and sidewalks may be constructed over the in-place fill, but not without some risks to the owner. Due to the erratic nature of the fill material and voids/topsoil contained within the fill, we expect long-term consolidation will result in a wavy pavement/sidewalk surface, local dish-shaped depressions (bird-baths), cracked surfaces, and eventually potholes. We expect pavement performance to be similar to that experienced by pavements around the existing facility that are also over these fills.

We recommend that the owner accept some risks of poor pavement/sidewalk performance. The only means of ensuring 'normal' pavement performance is the complete removal and replacement of the fill from the site or utilizing a supported pavement/sidewalk system, both very costly solutions. We outline below measures to reduce the owner's exposure. However, the owner should expect a shorter than 'normal' pavement/sidewalk life and higher than 'normal' maintenance costs.

Based on this background, we provide the following specific recommendations:

### 6.1 Site Preparation

Clear the site. Remove the existing asphalt; milled or broken asphalt pieces may be used for structural fill outside the building footprint or as part of the pavement subbase (see Section 6.7). Remove all surface organic matter; budget to import topsoil needed for the final landscaping.

The geotechnical engineer, or our field representative, should observe proof-rolling of the subgrade prior to new fill placement. The contractor should provide a loaded ten-wheel truck or similar heavy construction equipment for the proof-rolling. If the subgrade ruts, weaves or quakes during proof-rolling, excavate and re-compact or replace the unacceptable areas as recommended by the geotechnical engineer.

### 6.2 Structural Fill Placement

The on-site material may be used for fill material. This material will be mixed and contain a large amount of debris. Waste large pieces of wood, concrete, etc. in berms or landscaped areas; otherwise, remove it from the site. If imported material is used, we recommend using a material similar in gradation to N.Y.S.D.O.T. Item 203.07. Submit imported material gradations and sources to the geotechnical engineer for approval on a case by case basis. Maintain good surface drainage.

We define structural fill for this report as fill and backfill placed under floor slabs, sidewalks, and pavements. Moisture condition structural fill to within two percent of the optimum moisture content for compaction. Compact structural fill to at least 95 percent of the maximum dry density as determined by the Modified Proctor Test (ASTM D-1557). Compact other fill as determined by the site engineer.

### 6.3 Pile Foundation Recommendations

We conclude that the building and floor slab should be supported on HP10 x 57 (A36) steel H-piles using an allowable load capacity of 50 tons (100 tons ultimate) to be applied to each pile. [NOTE: This steel H-pile is structurally capable of supporting up to 100 tons allowable (200 tons ultimate) per the NYS Building Code.] We anticipate that long-term consolidation of the fill may account for an additional 10 tons of down-drag on the pile (in excess of the 50 tons allowable). Although a lighter pile may suffice structurally, we recommend using the heavier pile due to the potential for hitting obstructions in the fill and to allow for more capacity to be utilized for out-of-plan piles, a common problem for piles driven though rubble fills. Where out-of-plan piles occur, piles may be driven to an allowable capacity of 80 tons on a case by case basis as determined by the structural engineer.

The piles should be driven with a hammer delivering at least 15,000 ft/lbs. of energy, but not more than 25,000 ft/lbs., and to a resistance of:

$$R = \frac{2E}{S+0.1}$$

Where
R = Pile Design load in pounds
E = Energy delivered to the pile in ft/lbs.
S = Pile penetration in inches/blow

Five percent of the piles, but not less than six piles should be load tested using dynamic testing methods. Test pile locations should to be selected by the geotechnical engineer. It is the intent to drive the initial piles to the formula criteria and modify the driving resistance based on the dynamic testing.

Per NYS Building Code requirements, the piles should be driven in the presence of the geotechnical engineer or his field representative so we may record a Pile Driving Record of each pile. The contractor should be required to provide out of plan, plumbness, and heave measurements made by a licensed Land Surveyor. An initial top elevation, accurate to within 0.005 feet, should be taken on each pile as

soon as it is driven, i.e., before any of the adjacent piles are driven. The piles should be driven within four inches of the plan location. The pile, as driven, should be plumb to within two inches in ten feet, but not more than four inches over the length of the pile. Piles should be installed at least three pile diameters apart and preferably five or more diameters apart. Field weld splices may be permitted only if the ends are square cut and beveled. Not more than one splice should be permitted per pile.

We believe that large pieces of debris (old foundations, wood, pipe, rail ties, concrete, tires, etc.) will be found in the fill material. Boulders and/or rock slabs may be encountered on or just above the bedrock. Manufactured driving shoes should be used on each pile to protect the pile tip during driving.

### 6.4 Floor Subgrade Preparation

We recommend that the geotechnical engineer, or our field representative, observe proof-rolling of the floor subgrade prior to pouring the structural floor slab. Recompact or replace areas that rut, weave, quake, or otherwise deemed unstable under the proof-roll traffic. The architect, structural engineer, and environmental engineer should review the need for a vapor barrier/extraction system and if needed, where it should be installed. See the American Concrete Institute Document 302.1R, "Concrete Floor and Slab Construction", for more information.

### 6.5 Lateral Pressures

Lateral forces, due to wind and seismic loading, will need to be resisted by the structure. For below grade pile caps, foundation walls. and grade beams, the pressure distribution may be taken as triangular and equivalent to a fluid with a specified weight. Design walls based on active, passive, and at-rest earth pressures tabulated below. Assume the soils may settle away from the floors or pile caps and therefore no sliding resistance will be developed.

Table No. 2 – Lateral Earth Pressures

| Backfill Material | Internal Friction | Active Pressure | Passive Pressure | At Rest Pressure |
|---|---|---|---|---|
| Native Soil/Fill | 30 | 45 | 400 | 67 |
| N.Y.S.D.O.T. | 34 | 40 | 525 | 65 |

Where piles are used to resist lateral forces, assume the lateral capacity against transient loads at 3.5 tons per pile and against long-term loads at 1.5 tons per pile. These values assume a pile spacing within each pile group of three to six pile diameters. These lateral loads will result in 0.25 inch of pile deflection at the top of the pile. Let us know if other pile deflections are critical to your design.

### 6.6 Seismic Design Criteria

According to FEMA seismic hazard mapping for a Site Classification of B, structures in Rochester, New York may experience short dynamic period spectral accelerations ($S_S$) of 0.25g and 1-second period spectral response accelerations ($S_1$) of 0.07g. We identify the site as having a Site Classification of D (stiff soil profile) for the upper 100 feet. The Code provides methods for adjusting the $S_S$ and $S_1$ value for a Site Classification of D

### 6.7 Trenching and Excavating

Perform trenching and excavating work in accordance with the Occupational Safety and Health Administration (OSHA) requirements and New York State Building Code Standards. The contractor is responsible for determining the measures required in meeting these standards. Cut unsupported temporary excavations to a stable slope, but in no case steeper than 1 horizontal on 1 vertical.

It is our opinion that the mass earthwork and the foundation and utility trenches can be achieved using construction equipment capable of achieving the desired depth. Check with Day Environmental, Inc.'s report on the proper handling and disposal of the on-site soil. We believe open sumps and pumps will be sufficient to control surface water or rainfall.

## 6.8 Pavement Recommendations

The pavement subgrade will be reworked mixed fill. Compact the on-site fill material used under pavement areas in eight-inch thick loose lifts until they have met structural fill requirements and are stabilized under proof-rolling. Re-compact or replace areas that rut, weave, quake or are otherwise deemed unsuitable. In cut areas, rework and re-compact the top 12-inches of in-place fill material. Remove from within 12-inches of the pavement subgrade large pieces of debris, stone, or cobbles within the fill. Remove old foundations, if encountered, to a depth of 24 inches below any new construction.

We recommend using the pavement section shown below. Milled or broken asphalt pieces, salvaged during site preparation, may be used to backfill undercut unstable areas. We recommend pavement slopes of at least 2.0 percent. Drainage of the subbase is critical to proper performance of the pavements constructed over these poor quality soils. Provide weeps at all low points to allow water out of the stone subbase and into the stormwater system.

**Table No. 3 - Standard Section**

| | | |
|---|---|---|
| 1.0" | Asphalt Topcoat | N.Y.S.D.O.T. Item 403.18 |
| 2.0" | Asphalt Binder | N.Y.S.D.O.T. Item 403.13 |
| 9.0" | Crusher-Run Stone Subbase | N.Y.S.D.O.T. Item 304.03 |
| | Tensar BX-1100 | Geogrid |
| | Subgrade | Approved Proof-Roll |

**Table No. 4 – Heavy Duty Section**

| | | |
|---|---|---|
| 1.5" | Asphalt Topcoat | N.Y.S.D.O.T. Item 403.18 |
| 2.0" | Asphalt Binder | N.Y.S.D.O.T. Item 403.13 |
| 12.0" | Crusher-Run Stone Subbase | N.Y.S.D.O.T. Item 304.03 |
| | Tensar BX-1100 | Geogrid |
| | Subgrade | Approved Proof-Roll |

Our experience has been that asphalt pavements do not perform well under/and in truck docks and in where the repeated truck traffic tends to rut the pavement. We suggest you construct the dumpster pad, the 12 to 15 foot area in front of the pad, and truck dock aprons with concrete/rigid pavement.

### 6.9 Geotechnical Construction Services

The recently adopted NYS Building Code requires special inspection services. As the geotechnical engineer of record, we recommend the following inspections and ask that you include them on your List of Special Inspections developed as part of the Building Permitting Process:

- Retain an independent test agency to perform full-time observation of the mass fill placement and periodic observation of the backfilling operations. The test agency should submit, to both our office and your architect, testing reports on the day the fill placement is performed. Upon completion of the fill placement, the testing agency should submit a letter confirming that the work was performed in accordance with this report. This letter will contain a copy of all test reports.

  A. Conduct at least one density test on each 2,500 square feet of mass fill placed under floor slabs, sidewalks, and pavements with at least two tests for each partial lift.

  B. Conduct at least one density test per 50 lineal feet of foundation backfill and utility trench backfill on alternating lifts.

  C. Place fill in lifts not to exceed eight inches in loose thickness.

  D. Compact structural fill to at least 95 percent of the maximum dry density as determined by the Modified Proctor Test (ASTM D-1557).

  E. Compact other fill to 90 percent of Modified Proctor or as otherwise determined by the site engineer.

- As the geotechnical engineer, recommend that Foundation Design, P.C. be retained to make site visits during construction work to observe the contractor's means and methods, confirm that the conditions are as expected, and provide recommendations where conditions differ from those expected. Specifically, we should observe the following:

  A. Part-time observation of proof-rolling of the building subgrade and fill placement.

  B. Full-time observation of the pile installations.

  C. Part-time observation of the pavement subgrade preparation work.

## 7.0 CLOSURE

This concludes our formal evaluation. Forward a copy of the near final plans and specifications for our review and comment. It has been a pleasure working with you on this project. We look forward to hearing from you again as the project proceeds toward construction.

# Important Information About Your

# Geotechnical Engineering Report

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*The following information is provided to help you manage your risks.*

## Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one—not even you*—should apply the report for any purpose or project except the one originally contemplated.

## Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

## Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions *only* at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an *opinion* about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

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# APPENDIX A

General Location Plan
Boring and Test Pit Location Plan


**FOUNDATION DESIGN, P.C.**
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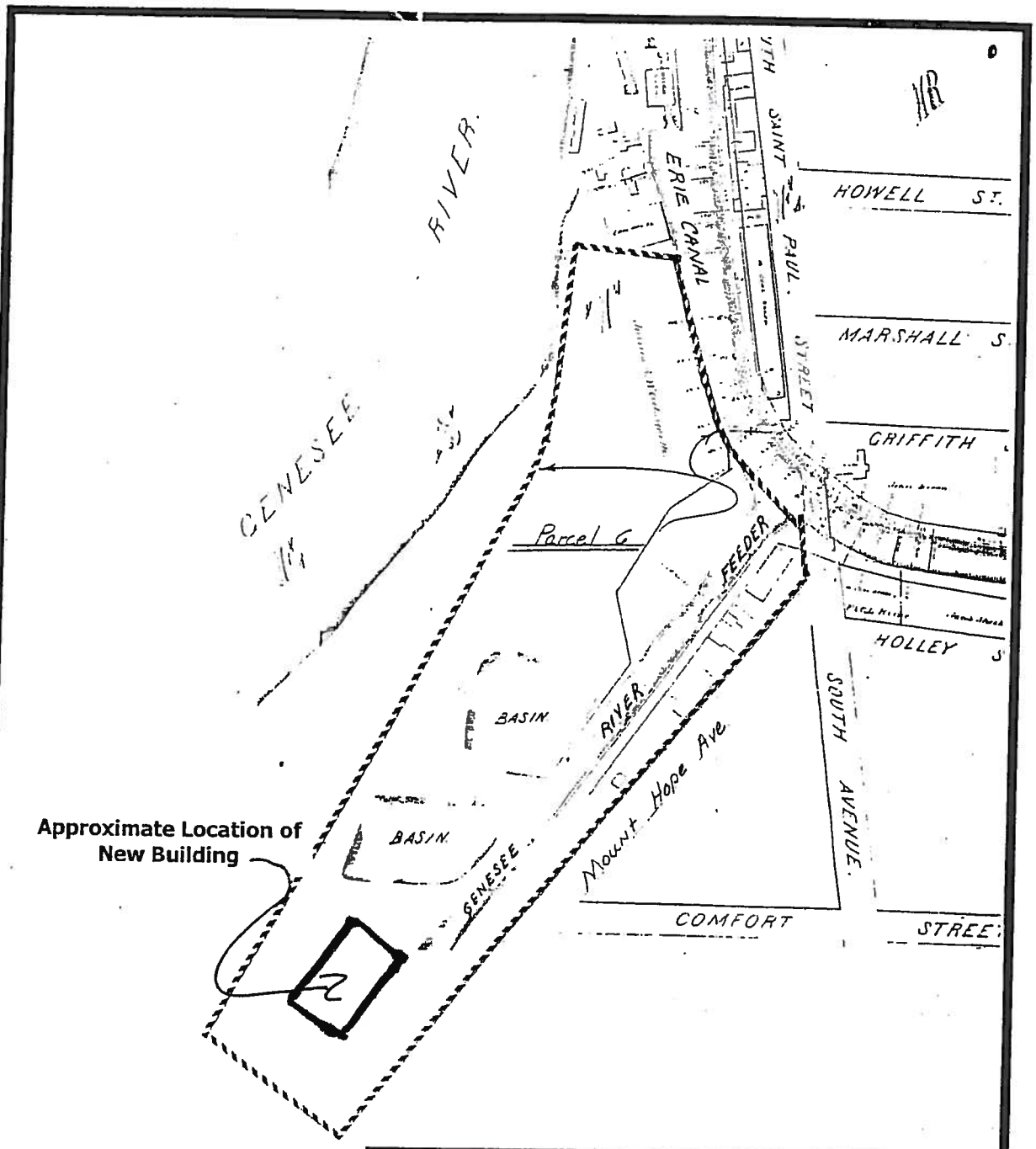
E-mail: FDPC@Frontiernet.net

**Time Warner Cable**
151 Mt. Hope, Rochester, New York
**General Location Plan**
Adapted from: NYSDOT Mapping "Rochester East" Quadrangle
Dated 1997

| | | | |
|---|---|---|---|
| DRAWN BY: | JB | Scale: 1"=2000' | DATE: 4-16-04 |
| CHECKED BY: | JDN | | JOB. NO.: 2746.0 |




MAP
ERIE CANAL
through the
County of
MONROE
from surveys made in
1865 and 1873.

**FOUNDATION DESIGN, P.C.**
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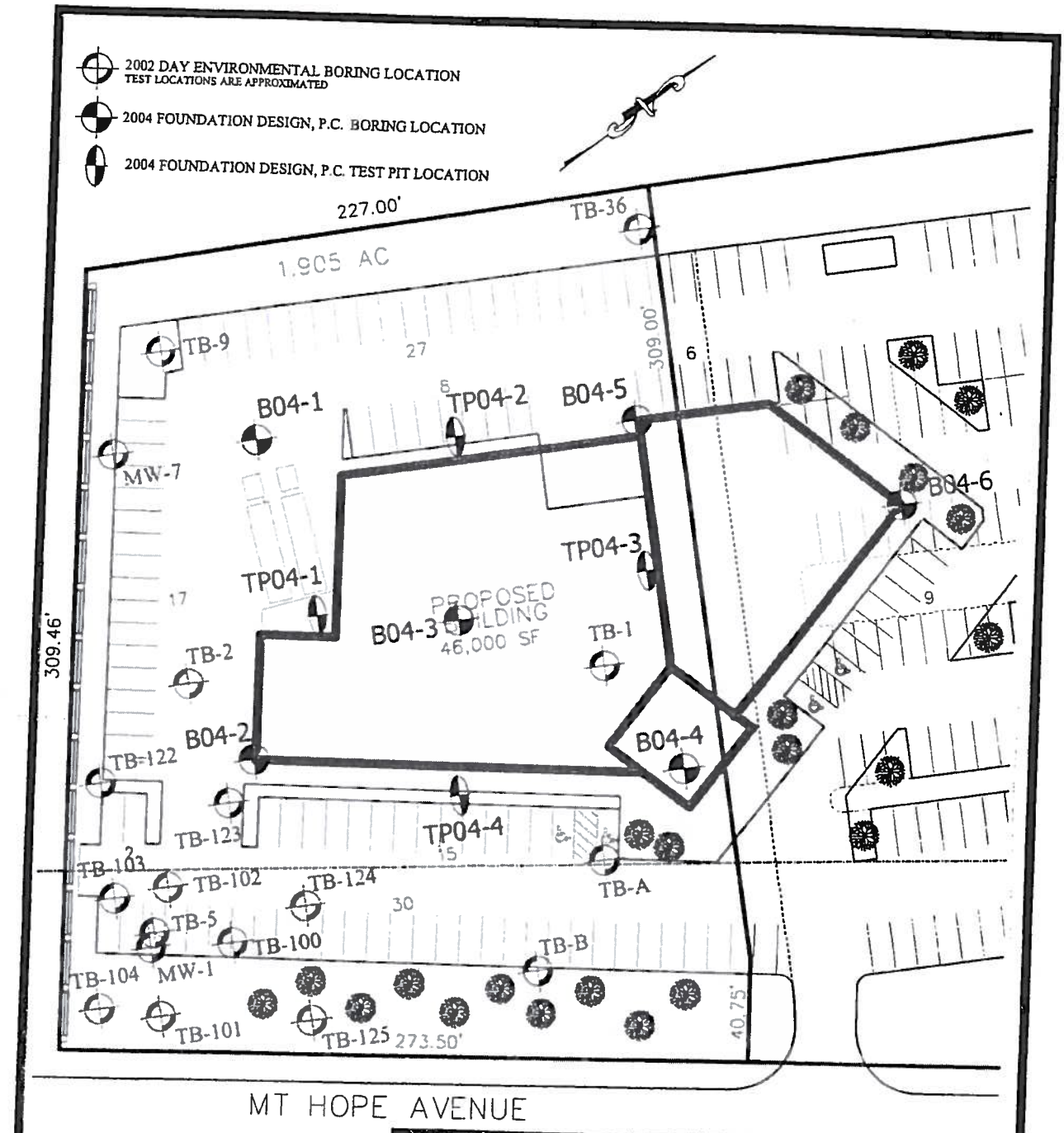
**Time Warner Cable**
151 Mt. Hope, Rochester, New York
**1873 Genesee River Feeder to Erie Canal**
Adapted from: Historical mapping

| | | | |
|---|---|---|---|
| DRAWN BY: | JRH | DATE: | 3-15-03 |
| CHECKED BY: | JDN | JOB. NO.: | 2746.0 |





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**Time Warner Cable**
151 Mt. Hope, Rochester, New York
**Boring and Test Pit Location Plan**
Adapted from: SWBR Architects "Site" Plan

| | | | |
|---|---|---|---|
| DRAWN BY: SCA | Scale: 1"=50' | DATE: 3-8-03 |
| CHECKED BY: JDN | | JOB. NO.: 2746.0 |

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# APPENDIX B

Boring Logs
Test Pit Logs

TARGET DRILLING

# SOIL DESCRIPTIONS

## COHESIVE SOIL

Very fine grained soils. Plastic soils that can be rolled into a thin thread if moist. Clays and silty clays show cohesion.

| DESCRIPTION | STP-BLOWS/FOOT |
|---|---|
| Very Soft | 0-2 |
| Soft | 3-5 |
| Medium | 6-15 |
| Stiff | 16-25 |
| Hard | 26 or more |

## NON-COHESIVE SOIL

Soils composed of silt, sand and gravel. showing no cohesion or very slight cohesion

| DESCRIPTION | STP-BLOWS/FOOT |
|---|---|
| Loose | 0-10 |
| Firm | 11-25 |
| Compact | 26-40 |
| Dense | 41-50 |
| Very Dense | 51 or more |

## SOIL COMPOSITION

| DESCRIPTION | ESTIMATED PERCENTAGE |
|---|---|
| and | 50 |
| some | 30-49 |
| little | 11-29 |
| trace | 0-10 |

## MOISTURE CONDITIONS

Dry, Damp, Moist, Wet, Saturated
Groundwater measured in the boring or test pit may not have reached equilibrium

## SOIL STRATA

| TERM | DESCRIPTION |
|---|---|
| varved | Horizontal uniform layers or seams of soil |
| layer | Soil deposit more than 6" thick |
| seam | Soil deposit less than 6" thick |
| parting | Soil deposit less than 1/8" thick |

## EXPLANATION OF CLASSIFICATIONS AND TERMS

| | | | |
|---|---|---|---|
| Boulder | | Larger than 12 inches | |
| Cobble | | 3 inches to 12 inches | |
| Gravel | - coarse | 1-3 inches | |
| | - medium | 3/8 to 1 inch | |
| | - fine | 4.76mm to 3/8 inch | |
| Sand | - coarse | 2.00mm to 4.76mm | #10 sieve |
| | - medium | 0.42mm to 2.00mm | #40 sieve |
| | - fine | 0.074mm to 0.42mm | #200 sieve |
| Silt and Clay | | finer than 0.074mm | |

Standard Penetration Test: The number of blows required to drive a split spoon sampler into the soil with a 140 pound hammer dropped 30 inches. The number of blows required for each 6-inches of penetration is recorded. The number of blows required for the second and third 6-inches of penetration is termed the penetration resistance, or the "N" value

Split Spoon Sampler: Typically a 2-foot long, 2-inch diameter hollow steel tube that breaks apart or splits in two down the tube length.

Refusal: Depth in the boring where more than 100 blows per six-inches are needed to advance the sample spoon.

Core recovery (%): The total length of core recovered divided by the core run.

RQD (%): Rock Quality Designation-the total length of all the pieces of the rock core longer than four-inches divided by the core run.

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B04-1
Job No.. 4442
Page: 1 OF 1
Report Date: 2/20/2004

Project: TIME WARNER, MOUNT HOPE AVE.ROCHESTER
Client: FOUNDATION DESIGN, PC
Elevation: 516.83
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. KAHN
Start: 2/20/2004
Completed: 2/20/2004

Seasonal and climatic changes may alter observed water levels.

| 0 | C | Blows on Sampler 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | Sample No. | depth | Soil and Rock Information |
|---|---|---|---|---|---|---|---|---|---|
| | | 3 | 6 | | | | | | MISC. FILL MATERIAL C/O TOPSOIL, BRICK, |
| | | | | 10 | 13 | 16 | 1 | 0'0"-2'0" | ASH, GLASS,SLAG,SILT, SAND AND GRAVEL |
| | | 14 | 17 | | | | | | |
| | | | | 16 | 20 | 33 | 2 | 2'0"-4'0" | MISC. FILL MATERIAL MOIST ( WOOD NOTED ) |
| 5 | | 30 | 20 | | | | | | |
| | | | | 17 | 12 | 37 | 3 | 4'0"-6'0" | MISC. FILL ( CONCRETE NOTED ) |
| | | 8 | 7 | | | | | | |
| | | | | 6 | 10 | 13 | 4 | 6'0"-8'0" | MISC. FILL MOIST BLACK |
| | | 13 | 10 | | | | | | |
| 10 | | | | 13 | 7 | 23 | 5 | 8'0"-10'0" | MISC. FILL MOIST 10'0" |
| | | 2 | 2 | | | | | | |
| | | | | 4 | 6 | 6 | 6 | 10'0"-12'0" | MEDIUM GREEN GREY MOIST ORGANIC SILT |
| | | | | | | | | | LITTLE CLAY, TRACE VF SAND |
| | | | | | | | | | |
| 15 | | | | | | | | | |
| | | 3 | 2 | | | | | | |
| | | | | 4 | 2 | 6 | 7 | 15'0"-17'0" | MEDIUM GREEN GREY SATURATED |
| | | | | | | | | | 17'6" |
| | | | | | | | | | ( VERY BUMPY FROM 17'6"-19'0" ) |
| 20 | | | | | | | | | |
| | | 27 | 30 | | | | | | |
| | | | | 50/5 | | 80/11 | 8 | 20'0"-21'5" | VERY DENSE RED BROWN MOIST F-VF SAND, |
| | | | | | | | | | SOME C-F GRAVEL, LITTLE SILT |
| | | | | | | | | | AUGERS GRINDING |
| 25 | | | | | | | | | AUGER REFUSAL @ 24'3" |
| | | | | | | | | | |
| | | | | | | | | | BORING TERMINATED @ 24'3" |
| 30 | | | | | | | | | |
| | | | | | | | | | NOTES: ELEVATIONS PROVIDED BY OTHERS |
| | | | | | | | | | INSTALLED 2" PVC OBSERVATION WELL TO 24'0" |
| | | | | | | | | | WITH 3' STICKUP ( 10' SCREEN ) |
| 35 | | | | | | | | | |

N=No. of Blows to 2" Spoon 12" with 140 30" Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt Ea. Blow

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B04-2
Job No.: 4442
Page: 1 OF 1
Report Date: 2/23/2004

Project: TIME WARNER, MOUNT HOPE AVE.ROCHESTER
Client: FOUNDATION DESIGN, PC
Elevation: 514.6
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. KAHN
Start: 2/23/2004
Completed: 2/23/2004

Seasonal and climatic changes may alter observed water levels.

| | C | Blows on Sampler 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | Sample No. | Sample depth | Soil and Rock Information |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | 11 | 10 | | | | | | MISC. FILL MATERIAL C/O TOPSOIL, CINDERS |
| | | | | 12 | 13 | 22 | 1 | 1'0"-2'0" | ASH, BRICK, SILT, SAND , GRAVEL ETC. |
| | | 18 | 18 | | | | | | |
| | | | | 16 | 14 | 34 | 2 | 2'0"-4'0" | MISC, FILL MATERIAL MOIST ( CONCRETE ) |
| 5 | | 13 | 10 | | | | | | |
| | | | | 7 | 5 | 17 | 3 | 4'0"-6'0" | MISC. FILL MATERIAL MOIST 6'0" |
| | | 4 | 3 | | | | | | |
| | | | | 3 | 5 | 6 | 4 | 6'0"-8'0" | MEDIUM GREEN GREY MOIST ORGANIC SILT, |
| | | 7 | 7 | | | | | | LITTLE CLAY |
| 10 | | | | 6 | 6 | 13 | 5 | 8'0"-10'0" | MEDIUM GREEN GREY MOIST |
| 15 | | 2 | 2 | | | | | | |
| | | | | 2 | 2 | 4 | | 13'6"-15'6" | NO RECOVERY |
| | | | | | | | | | AUGERS GRINDING AND BUMPY FROM 16'6"-18'0" |
| | | | | | | | | | AUGER REFUSAL @ 18'6" |
| 20 | | | | | | | | RUN # 1 | ( CORE BLOCKED 6" INTO RUN ) |
| | | | | | | | | 18'6"-19'6" | MEDIUM HARD GREY DOLOMITIC LIMESTONE |
| | | | | | | | | RUN # 2 | HIGHLY FRACTURED IN UPPER 4'6" OF BEDROCK |
| | | | | | | | | 19'6"-29'8" | ( SEVERAL CORE BARREL DROPS BEFORE SMOOTH |
| | | | | | | | | REC=64% | AND UNIFORM CORING AT APPROX. 23'0" TO 29'8" |
| 25 | | | | | | | | RQD=50% | BORING TERMINATION ) |
| | | | | | | | | | STYLOLITIC FEATURES, SHALEY PARTINGS |
| | | | | | | | | | NOTED. |
| 30 | | | | | | | | | |
| | | | | | | | | | 29'8" |
| | | | | | | | | | BORING TERMINATED @ 29'8" |
| | | | | | | | | | NOTES: CORED WITH SERIES "M" DOUBLE TUBE |
| 35 | | | | | | | | B | BARREL AND DIAMOND BIT |
| | | | | | | | | | ELEVATIONS PROVIDED BY OTHERS |

N=No. of Blows to 2" Spoon 12" with 140 lb. wt 30" Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt Ea. Blow

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B04-3
Job No.. 4442
Page: 1 OF 1
Report Date: 2/20/2004

Project: TIME WARNER, MOUNT HOPE AVE.ROCHESTER
Client: FOUNDATION DESIGN, PC
Elevation: 515.7
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. KAHN
Start: 2/20/2004
Completed: 2/20/2004

Seasonal and climatic changes may alter observed water levels.

| | C | Blows on Sampler 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | Sample No. | depth | Soil and Rock Information |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | 4 | 7 | | | | | | MISC. FILL MATERIAL C/O TOPSOIL, BRICK, |
| | | | | 10 | 8 | 17 | 1 | 0'0"-2'0" | ASH, GLASS, SILT, SAND AND GRAVEL |
| | | 23 | 16 | | | | | | |
| | | | | 13 | 21 | 29 | 2 | 2'0"-4'0" | MISC. FILL MATERIAL C/O BRICK, CONCRETE |
| 5 | | 23 | 10 | | | | | | ASH, GLASS, SILT, SAND AND GRAVEL |
| | | | | 8 | 7 | 18 | 3 | 4'0"-6'0" | MISC. FILL ( ODOR NOTED ) |
| | | 2 | 2 | | | | | | |
| | | | | 2 | 3 | 4 | 4 | 6'0"-8'0" | MISC. FILL SATURATED ( MOSTLY ASH ) |
| | | 3 | 2 | | | | | | |
| 10 | | | | 2 | 2 | 4 | 5 | 8'0"-10'0" | MISC. FILL SATURATED ( CONCRETE, WOOD, GLASS ) |
| | | 1 | 1 | | | | | | 11'0" |
| | | | | 3 | 5 | 4 | 6 | 10'0"-12'0" | SOFT GREEN GREY SATURATED CLAYEY ORGANIC |
| | | 6 | 7 | | | | | | SILT 12'0" |
| | | | | 8 | 6 | 15 | 7 | 12'0"-14'0" | FIRM GREY GREEN WET SILT, LITTLE VERY FINE |
| 15 | | 2 | 2 | | | | | | SAND |
| | | | | 2 | 18 | 4 | 8 | 14'0"-16'0" | LOOSE GREEN GREY SATURATED ( WOOD AND |
| | | 22 | 18 | | | | | | MARL NOTED ) 15'6" |
| | | | | 23 | 17 | 41 | 9 | 16'0"-18'0" | DENSE RED BROWN WET F-VF SAND, SOME C-F |
| | | 13 | 13 | | | | | | GRAVEL, LITTLE SILT |
| 20 | | | | 25 | 30 | 38 | 10 | 18'0"-20'0" | COMPACT RED BROWN MOIST |
| | | 35 | 25 | | | | | | |
| | | | | 37 | 30 | 62 | 11 | 20'0"-22'0" | VERY DENSE RED BROWN MOIST |
| | | 37 | 57 | | | 94 | 12 | 22'0"-23'0" | VERY DENSE RED BROWN MOIST |
| | | | | | | | | | AUGERS GRINDING |
| 25 | | | | | | | | | |
| | | | | | | | | | AUGER REFUSAL @ 25'6" |
| | | | | | | | | | BORING TERMINATED @ 25'6" |
| 30 | | | | | | | | | |
| | | | | | | | | | NOTES: ELEVATIONS PROVIDED BY OTHERS |
| 35 | | | | | | | | | |

N=No. of Blows to 2" Spoon 12" with 140 30" Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt Ea. Blow

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B04-4
Job No.: 4442
Page: 1 OF 1
Report Date: 2/19/2004

Project: TIME WARNER, MOUNT HOPE AVE.ROCHESTER
Client: FOUNDATION DESIGN, PC
Elevation: 515.5
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. KAHN
Start: 2/19/2004
Completed: 2/19/2004

Seasonal and climatic changes may alter observed water levels.

| 0 | C | Blows on Sampler 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | Sample No. | depth | Soil and Rock Information |
|---|---|---|---|---|---|---|---|---|---|
| | | 25 | 39 | | | | | | MISC. FILL MATERIAL C/O TOPSOIL, BRICK, |
| | | | | 14 | 10 | 53 | 1 | 0'0"-2'0" | ASH, GLASS,SLAG, CONCRETE SILT, SAND AND |
| | | 6 | 7 | | | | | | GRAVEL |
| | | | | 15 | 50/1 | 22 | 2 | 2'0"-3'7" | MISC. FILL MATERIAL MOIST |
| 5 | | 12 | 9 | | | | | | |
| | | | | 6 | 7 | 15 | 3 | 4'0"-6'0" | MISC. FILL MATERIAL MOIST |
| | | 6 | 5 | | | | | | 6'6" |
| | | | | 7 | 7 | 12 | 4 | 6'0"-8'0" | MEDIUM GREEN GREY MOIST ORGANIC SILT, |
| | | 2 | 4 | | | | | | LITTLE CLAY, TRAVE VF SAND |
| 10 | | | | 4 | 8 | 8 | 5 | 8'0"-10'0" | MEDIUM GREEN GREY MOIST |
| | | | | | | | | | 12'0" |
| | | 1 | 2 | | | | | | |
| 15 | | | | 2 | 2 | 4 | 6 | 13'6"-15'0" | LOOSE GREEN GREY WET TO SATURATED SILT, |
| | | | | | | | | | AND VF SAND |
| | | 2 | 2 | | | | | | 19'0" |
| 20 | | | | 8 | | 10 | 7 | 18'6"-20'0" | LOOSE GREY SATURATED M-VF SAND, SOME |
| | | 27 | | | | | | | ORGANICS, LITTLE SILT 19'8" |
| | | | | | | | | | LOOSE GREY SATURATED ROCK FRAGMENTS |
| | | | | | | | | | AUGER REFUSAL @ 21'10" |
| 25 | | | | | | | | | BORING TERMINATED @ 21'10" |
| | | | | | | | | | NOTES: ELEVATIONS PROVIDED BY OTHERS |
| 30 | | | | | | | | | |
| 35 | | | | | | | | | |

N=No. of Blows to 2" Spoon 12" with 140 30" Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt Ea. Blow

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B04-5
Job No.: 4442
Page: 1 OF 1
Report Date: 2/19/2004

Project: TIME WARNER, MOUNT HOPE AVE.ROCHESTER
Client: FOUNDATION DESIGN, PC
Elevation: 576.9
Water Level - Casing In: 10'0"
Below Surface - Casing Out:

Geologist:
Driller: S. KAHN
Start: 2/19/2004
Completed: 2/20/2004

Seasonal and climatic changes may alter observed water levels.

| | C | Blows on Sampler 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | Sample No. | Sample depth | Soil and Rock Information |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | 5 | 6 | | | | | | TOPSOIL AND ORGANIC MATTER 1'6" |
| | | | | 7 | 7 | 13 | 1 | 0'0"-2'0" | MISC. FILL MATERIAL C/O ASH, CINDERS, BRICK SILT, SAND AND GRAVEL ( HEAVY FILLS- GRINDING ) |
| 5 | | 13 | 8 | | | | | | |
| | | | | 8 | 7 | 16 | 2 | 4'0"-6'0" | MISC. FILL MATERIAL MOIST( CONCRETE / SLAG ) |
| | | 7 | 8 | | | | | | |
| | | | | 6 | 4 | 14 | 3 | 6'0"-8'0" | MISC. FILL MATERIAL MOIST( WOOD ) |
| | | 2 | 1 | | | | | | |
| 10 | | | | 2 | 3 | 3 | 4 | 8'0"-10'0" | FILL MATERIAL SATURATED ( ODOR NOTED ) |
| | | 1 | 2 | | | | | | |
| | | | | 1 | 2 | 3 | | 10'0"-12'0" | NO RECOVERY ( SOUPY ) 12'0" |
| | | 1 | 2 | | | | | | LOOSE BLACK SATURATED SILT, TRACE MARL 13'0" |
| | | | | 1 | 3 | 3 | 5 | 12'0"-14'0" | LOOSE GREEN GREY SATURATED SILT AND VERY FINE SAND |
| 15 | | | | | | | | | |
| | | | | | | | | | 16'6" |
| | | 42 | 22 | | | | | | |
| 20 | | | | 27 | | 49 | 6 | 18'6"-20'0" | DENSE RED BROWN SATURATED F-VF SAND AND C-F GRAVEL, LITTLE SILT & COBBLE FRAGMENTS |
| | | 27 | | | | | | | ( VERY BUMPY ) |
| 25 | | 27 | 52 | | | 79 | 7 | 23'6"-24'6" | VERY DENSE RED BROWN MOIST |
| | | | | | | | | RUN # 1 | AUGER REFUSAL @ 25'6" |
| | | | | | | | | 25'6"-27'8" | MEDIUM HARD GREY DOLOMITIC LIMESTONE |
| | | | | | | | | REC=85% | ( HIGHLY FRACTURED ZONE FROM 27'-28'6" ) |
| | | | | | | | | RQD=58% | STYLOLITIC FEATURES, SHALEY PARTINGS |
| 30 | | | | | | | | RUN # 2 | AND VUGGS NOTED, RUN # 3 SLIGHTLY FRACTURED |
| | | | | | | | | 27'8"-28'2" | HORIZONTALLY. CORE BLOCKED TWO TIMES IN |
| | | | | | | | | RUN # 3 | UPPER 3' OF BEDROCK REGIME |
| | | | | | | | | 28'2"-35'6" | NOTES: CORED WITH SERIES "M" DOUBLE TUBE |
| | | | | | | | | REC=85% | BARREL AND DIAMOND BIT |
| 35 | | | | | | | | RQD=66% | |

N=No. of Blows to 2" Spoon 12" with 140 lb. wt 30" Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt Ea. Blow

BORING TERMINATED @ 35'6"

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B04-6
Job No.: 4442
Page: 1 OF 1
Report Date: 2/18/2004

Project: TIME WARNER, MOUNT HOPE AVE.ROCHESTER
Client: FOUNDATION DESIGN, PC
Elevation: 517.3
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. KAHN
Start: 2/18/2004
Completed: 2/18/2004

Seasonal and climatic changes may alter observed water levels.

| | C | Blows on Sampler | | | | N | Sample | | Soil and Rock Information |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | 0"/6" | 6"/12" | 12"/18" | 18"/24" | | No. | depth | |
| | | | | | | | | | ASPHALT 0'4" |
| | | 50/6 | | | | 50/6 | 1 | 1'0"-1'6" | BANK RUN GRAVEL 1'0" |
| | | | | | | | | | MISC. FILL MATERIAL C/O ASH, CINDERS, CONCRETE |
| | | 22 | 30 | | | | | | ( HEAVY FILLS TO 3'0" ) |
| 5 | | | | 50 | | 80 | 2 | 3'0"-4'6" | MISC. FILL MATERIAL MOIST ( CONCRETE & SLAG ) |
| | | 10 | 15 | | | | | | |
| | | | | 24 | 32 | 39 | 3 | 5'0"-7'0" | MISC, FILL MATERIAL MOIST ( ASH, WOOD AND |
| | | | | | | | | | CONCRETE |
| | | 7 | 4 | | | | | | |
| 10 | | | | 3 | 1 | 7 | 4 | 8'0"-10'0" | FILL MATERIAL SATURATED ( ODOR NOTED ) |
| | | 3 | 3 | | | | | | |
| | | | | 2 | 3 | 5 | | 10'0"-12'0" | NO RECOVERY ( SOUPY ) 13'0" |
| | | 7 | 7 | | | | | | |
| | | | | 8 | 8 | 15 | 5 | 12'0"-14'0" | MEDIUM GREEN GREY WET SILT, LITTLE CLAY |
| 15 | | | | | | | | | VERY FINE SAND |
| | | | | | | | | | 18'0" |
| | | 15 | 10 | | | | | | |
| 20 | | | | 11 | | 21 | 6 | 18'6"-20'0" | FIRM GREY SATURATED ROCK FRAGMENTS |
| | | | | | | | | | ( VERY BUMPY FROM 18' TO REFUSAL @ 23'0" |
| | | | | | | | | | MEDIUM HARD GREY DOLOMITIC LIMESTONE |
| | | | | | | | | RUN # 1 | HIGHLY FRACTURED IN UPPER 3'6" OF BEDROCK |
| 25 | | | | | | | | 23'0"-23'6" | ( RECOVERED 1'6" IN THIS ZONE, WITH TWO |
| | | | | | | | | RUN # 2 | CORE BLOCKS ) |
| | | | | | | | | 23'6"-26'6" | STYLOLITIC FEATURES, SHALEY PARTINGS |
| | | | | | | | | | AND VUGGS NOTED, RUN # 3 MODERATELY FRACTURED |
| | | | | | | | | RUN # 3 | HORIZONTALLY, LOST ALL DRILL WATER 6' INTO RUN # 3 |
| 30 | | | | | | | | 26'6"-33'0" | |
| | | | | | | | | REC=87% | |
| | | | | | | | | RQD=64% | NOTES: CORED WITH SERIES "M" DOUBLE TUBE |
| | | | | | | | | | BARREL AND DIAMOND BIT |
| | | | | | | | | | 33'0" |
| 35 | | | | | | | | | BORING TERMINATED @ 33'0" |

N=No. of Blows to 2" Spoon 12" with 140 30" Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt Ea. Blow

FOUNDATION DESIGN, P.C.

SOIL · ROCK · EXPLORATION · INSTRUMENTATION

# SOIL DESCRIPTIONS

**COHESIVE SOIL**
Very fine grained soils. Plastic soils that can be rolled into a thin thread if moist. Clays and silty clays show cohesion.

| DESCRIPTION | |
|---|---|
| Very Soft | Extrude between fingers when squeezed |
| Soft | Molded by light finger pressure |
| Medium | Molded by strong finger pressure |
| Stiff | Indented by thumb with effort |
| Hard | Indented by thumb nail with difficulty |

**NON-COHESIVE SOIL**
Soils composed of silt, sand and gravel, showing no cohesion or very slight cohesion

| DESCRIPTION |
|---|
| Loose |
| Firm |
| Compact |
| Dense |
| Very Dense |

---

**SOIL COMPOSITION**

| DESCRIPTION | ESTIMATED PERCENTAGE |
|---|---|
| and | 50 |
| some | 30-49 |
| little | 11-29 |
| trace | 0-10 |

**MOISTURE CONDITIONS**
Dry, Damp, Moist, Wet, Saturated
Groundwater measured in the boring or test pit may not have reached equilibrium

**SOIL STRATA:**

| TERM | DESCRIPTION |
|---|---|
| layer | Soil deposit more than 6" thick |
| seam | Soil deposit less than 6" thick |
| parting | Soil deposit less than 1/8" thick |
| varved | Horizontal uniform layers or seams of soil |

---

**GRAIN SIZE**

| MATERIAL | | SIEVE SIZE |
|---|---|---|
| Boulder | | Larger than 12 inches |
| Cobble | | 3 inches to 12 inches |
| Gravel | - coarse | 1 inch to 3 inches |
| | - medium | 3/8 inch to 1 inch |
| | - fine | No. 4 to 3/8 inch |
| Sand | - coarse | No. 10 to No. 4 |
| | - medium | No. 40 to No. 10 |
| | - fine | No. 200 to No. 40 |
| Silt and Clay | | Less than No. 200 |

FOUNDATION DESIGN, P.C.
SOIL • ROCK • EXPLORATION • INSTRUMENTATION

# Test Pit Log

| | | | | | |
|---|---|---|---|---|---|
| **Project No.** | 2746.0 | **Page** 1 **of** 1 | | **Test Pit No.** | TP04-1 |
| **Project Name** | Time Warner Cable Expansion, 151 Mt. Hope Boulevard, Rochester, New York | | | | |
| **Client** | Time-Warner Cable c/o SWBR Architects, P.C., 387 East Main St., Eastman Place, Rochester, NY | | | | |
| **Elevation** | 516.1 | **Weather** | cloudy, 28° | **Technician** | E. Ashley |
| **Date Started** | 2-24-04 | **Completed** | 2-24-04 | **Operator** | Ken |
| **Backhoe Subcontractor** | K.W. Fennell Excavating | | | **Equipment** | Cat 318 Excavator |

| Depth Below Surface | Sample Number | Depth of Sample | Soil and Rock Classifications<br>Remarks |
|---|---|---|---|
| 2 | | | Firm brown moist TOPSOIL, trace wood, concrete, brick, 2-pieces of slab rock to 2' x 1' x 1' (FILL) |
| 4 | | | 2'11"<br>Loose to firm black moist ASH, trace wood, brick, wire, 1 boulder to 2' in diameter (FILL) |
| 6 | | | |
| 8 | | | |
| 10 | | | 8'8"<br>Loose to firm grey wet ORGANIC SILT |
| 12 | | | 12'5" |
| 14 | | | Test pit terminated at 12'5"<br>Notes:<br>1. Sides vertical.<br>2. Water was flowing at 9'2".<br>3. Elevations provided by F.D.P.C. using a finished floor elevation of as the benchmark. |

FOUNDATION DESIGN, P.C.

SOIL • ROCK • EXPLORATION • INSTRUMENTATION

# Test Pit Log

| | | | | | |
|---|---|---|---|---|---|
| **Project No.** | 2746.0 | **Page** 1 of 2 | | **Test Pit No.** | TP04-2 |
| **Project Name** | Time Warner Cable Expansion, 151 Mt. Hope Boulevard, Rochester, New York | | | | |
| **Client** | Time-Warner Cable c/o SWBR Architects, P.C., 387 East Main St., Eastman Place, Rochester, NY | | | | |
| **Elevation** | 517.4 | **Weather** | cloudy, 28° | **Technician** | E. Ashley |
| **Date Started** | 2-24-04 | **Completed** | 2-24-04 | **Operator** | Ken |
| **Backhoe Subcontractor** | K.W. Fennell Excavating | | | **Equipment** | Cat 318 Excavator |

| Depth Below Surface | Sample Number | Depth of Sample | Soil and Rock Classifications<br>Remarks |
|---|---|---|---|
| 2 | | | Firm brown moist TOPSOIL, little silt, little gravel, trace brick, tile, concrete, few cobbles, few boulders to 18" in diameter (FILL)<br><br>Pocket of crusher-run stone at the north end of the test pit from 1' to 2'6" |
| 4 | | | 3'8"<br>Loose black moist ASH (FILL) |
| 6 | | | 5'4"<br>Compact brown moist SAND, some silt, some gravel, few cobbles (FILL) |
| 8 | | | 6'5"<br>Firm black moist ASH, trace to little wood, metal, glass, brick, few cobbles (FILL) |
| 10 | | | |
| 12 | | | 10'6"<br>Loose to firm grey-black mottled wet ORGANIC SILT, some sand |
| 14 | | | 13'4"<br>Test pit terminated at 13'4" |

FOUNDATION DESIGN, P.C.

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# Test Pit Log

| | | | | | |
|---|---|---|---|---|---|
| **Project No.** | 2746.0 | **Page** 2 **of** 2 | | **Test Pit No.** | TP04-2 |
| **Project Name** | Time Warner Cable Expansion, 151 Mt. Hope Boulevard. Rochester, New York | | | | |
| **Client** | Time-Warner Cable c/o SWBR Architects, P.C., 387 East Main St., Eastman Place, Rochester, NY | | | | |
| **Elevation** | 517.4 | **Weather** | cloudy, 28° | **Technician** | E. Ashley |
| **Date Started** | 2-24-04 | **Completed** | 2-24-04 | **Operator** | Ken |
| **Backhoe Subcontractor** | K.W. Fennell Excavating | | | **Equipment** | Cat 318 Excavator |

| Depth Below Surface | Sample Number | Depth of Sample | Soil and Rock Classifications<br>Remarks |
|---|---|---|---|
| 16 | | | |
| 18 | | | |
| 20 | | | |
| 22 | | | |
| 24 | | | |
| 26 | | | |
| 28 | | | Notes:<br>1. Sides vertical.<br>2. Water encountered at 11'7". Water level at 12'8" after 15 min.<br>3. 2" diameter steel pipe encountered at the south end of the test pit at 4'.<br>4. Elevations provided by F.D.P.C. using a finished floor elevation of as the benchmark. |

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# Test Pit Log

| | | | | | |
|---|---|---|---|---|---|
| **Project No.** | 2746.0 | **Page** 1 of 1 | | **Test Pit No.** | TP04-3 |
| **Project Name** | Time Warner Cable Expansion, 151 Mt. Hope Boulevard, Rochester, New York | | | | |
| **Client** | Time-Warner Cable c/o SWBR Architects, P.C., 387 East Main St., Eastman Place, Rochester, NY | | | | |
| **Elevation** | 516.2 | **Weather** | cloudy, 28° | **Technician** | E. Ashley |
| **Date Started** | 2-24-04 | **Completed** | 2-24-04 | **Operator** | Ken |
| **Backhoe Subcontractor** | K.W. Fennell Excavating | | | **Equipment** | Cat 318 Excavator |

| Depth Below Surface | Sample Number | Depth of Sample | Soil and Rock Classifications<br>Remarks |
|---|---|---|---|
| 2 | | | Compact brown moist SILT, some sand, some gravel, trace brick, few pieces of concrete to 2' x 2' x 10" (FILL) |
| 4 | | | 3'0"<br>Firm black moist ASH<br>4'0"<br>Compact brown moist SILT, little sand, little gravel (FILL) |
| 6 | | | 4'6"<br>Firm black moist ASH, trace metal, slag, brick, gravel |
| 8 | | | |
| 10 | | | |
| 12 | | | 10'3"<br>Loose to firm grey-black moist ORGANIC SILT, little fine sand<br>11'0"<br>Test pit terminated at 11'0" |
| 14 | | | Notes:<br>1. Sides vertical.<br>2. Dry on completion.<br>3. Elevations provided by F.D.P.C. using a finished floor elevation of as the benchmark. |

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# Test Pit Log

| | | | | | |
|---|---|---|---|---|---|
| **Project No.** | 2746.0 | **Page** 1 of 2 | | **Test Pit No.** | TP04-4 |
| **Project Name** | Time Warner Cable Expansion, 151 Mt. Hope Boulevard, Rochester, New York | | | | |
| **Client** | Time-Warner Cable c/o SWBR Architects, P.C., 387 East Main St., Eastman Place, Rochester, NY | | | | |
| **Elevation** | 514.5 | **Weather** | cloudy, 28° | **Technician** | E. Ashley |
| **Date Started** | 2-24-04 | **Completed** | 2-24-04 | **Operator** | Ken |
| **Backhoe Subcontractor** | K.W. Fennell Excavating | | | **Equipment** | Cat 318 Excavator |

| Depth Below Surface | Sample Number | Depth of Sample | Soil and Rock Classifications<br>Remarks |
|---|---|---|---|
| 2 | | | TOPSOIL<br>1'0"<br>Firm brown moist SILT, some topsoil, some sand, little gravel, trace brick, ash, few cobbles, few boulders |
| 4 | | | |
| 6 | | | |
| 8 | | | 6'0"<br>Loose to firm grey-black moist to wet ORGANIC SILT with organic layers |
| 10 | | | |
| 12 | | | |
| 14 | | | |

FOUNDATION DESIGN, P.C.

# Test Pit Log

| | | | | | |
|---|---|---|---|---|---|
| **Project No.** | 2746.0 | **Page** 2 **of** 2 | | **Test Pit No.** | TP04-4 |
| **Project Name** | Time Warner Cable Expansion, 151 Mt. Hope Boulevard, Rochester, New York | | | | |
| **Client** | Time-Warner Cable c/o SWBR Architects, P.C., 387 East Main St., Eastman Place, Rochester, NY | | | | |
| **Elevation** | 514.5 | **Weather** | cloudy, 28° | **Technician** | E. Ashley |
| **Date Started** | 2-24-04 | **Completed** | 2-24-04 | **Operator** | Ken |
| **Backhoe Subcontractor** | K.W. Fennell Excavating | | | **Equipment** | Cat 318 Excavator |

| Depth Below Surface | Sample Number | Depth of Sample | Soil and Rock Classifications<br>Remarks |
|---|---|---|---|
| | | | 14'0" |
| 16 | | | Test pit terminated at 14'0" |
| 18 | | | |
| 20 | | | |
| 22 | | | |
| 24 | | | |
| 26 | | | |
| 28 | | | Notes:<br>1. Sides vertical.<br>2. Dry on completion.<br>3. Elevations provided by F.D.P.C. using a finished floor elevation of as the benchmark. |

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# APPENDIX C

Day Environmental Geo-Probe Logs
Boring Logs

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-100

**Project:** Mt. Hope Project
**DAY Representative:** A. Farrell
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Start Date:** 05/07/01
**Borehole Diameter:** 3 inches
**Water Level:** Not encountered

**Datum:** NA
**Completion Date:** 05/07/01
**Borehole Depth:** 10.5 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 75 | NA | 0.0 | | Tan Sand, Silt, Gravel, Roots, Cinders, damp (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | Brown Sand, Silt, Gravel, Cinders, Ash, damp (FILL) |
| 4 | | | | | | 0.0 | | |
| 5 | | S-2 | 4-8 | 90 | NA | 0.0 | | Light Brown Sand and Silt, trace Cinders, damp (FILL) |
| 6 | | | | | | 0.0 | | |
| 7 | | | | | | 0.0 | | |
| 8 | | | | | | 0.0 | | |
| 9 | | S-3 | 8-10.5 | 60 | NA | 0.0 | | Dark Brown, Sand and Silt, some cinders, moist (FILL) |
| 10 | | | | | | 0.0 | | |
| 11 | | | | | | | | Refusal @ 10.5' |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

File: 2506S-1.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-101

**Project:** Mt. Hope Project
**DAY Representative:** A. Farrell
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 05/04/01
**Completion Date:** 05/07/01
**Borehole Diameter:** 3 inches
**Borehole Depth:** 16.2 feet
**Water Level:** Not encountered

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 90 | NA | 0.0 | | Tan Sand, Silt, Gravel, Roots, Cinders, damp (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | |
| 4 | | | | | | 9.7 | | Brown Sand, Silt, Gravel, Cinders, Brick, damp (FILL) |
| | | | | | | 22.4 | | ... slight weathered petroleum odor |
| 5 | | S-2 | 4-8 | 90 | NA | 29.3 | | |
| 6 | | | | | | 208 | | |
| 7 | | | | | | 240 | | ... dark staining with strong petroleum odor |
| 8 | | | | | | 110 | | |
| | | | | | | 38.8 | | Reddish brown Silty SAND, some Gravel, damp to moist |
| 9 | | S-3 | 8-11 | 70 | NA | 29.5 | | |
| 10 | | | | | | 33.0 | | |
| 11 | | | | | | 57 | | ... seam of Rock fragments |
| | | | | | | 402 | | |
| | | | | | | 186 | | |
| 12 | | S-4 | 11-14 | 60 | NA | 90.7 | | |
| 13 | | | | | | 60.6 | | ... grades to Silty SAND and GRAVEL |
| | | | | | | 23.8 | | .. Rock fragments |
| 14 | | | | | | 18.1 | | ... odors decreasing |
| 15 | | S-5 | 14-16.2 | 50 | NA | 7.3 | | |
| 16 | | | | | | 0.6 | | ... angular Rock fragments |
| | | | | | | | | Refusal @ 16.2' |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

File: 2506S-01.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-102

**Project:** Mt. Hope Project
**DAY Representative:** J. Dorety
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Start Date:** 05/04/01
**Borehole Diameter:** 3 inches
**Water Level:** Not encountered

**Datum:** NA
**Completion Date:** 05/04/01
**Borehole Depth:** 18.0 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 75 | NA | 0.0 | | Tan Sand, Silt, Gravel, Roots, damp (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | ... seam of Gravel |
| 4 | | | | | | 0.0 | | |
| 5 | | S-2 | 4-8 | 50 | NA | 0.0 | | Dark brown Sand, Silt, Gravel, Ash, Brick, Coal, damp (FILL) |
| 6 | | | | | | 0.0 | | |
| 7 | | | | | | 0.0 | | |
| 8 | | | | | | 0.0 | | |
| 9 | | S-3 | 8-12 | 70 | NA | 0.0 | | |
| 10 | | | | | | 0.0 | | |
| 11 | | | | | | 7.2 | | Black Sand, Gravel, Cinders, Silt, Ash, Rock fragments, moist (FILL) |
| 12 | | | | | | 29.3 | | |
| 13 | | S-4 | 12-16 | 60 | NA | 140 | | ... Strong petroleum odor |
| 14 | | | | | | 224 | | |
| 15 | | | | | | 2003 | | |
| 16 | | | | | | 461 | | Reddish brown to gray Silt, SAND and GRAVEL, trace Clay, moist |
| 17 | | S-5 | 16-18 | 50 | NA | 103 | | |
| 18 | | | | | | 64.1 | | ... Rock fragments |
| 19 | | | | | | 27.6 | | |
| 20 | | | | | | 10.2 | | Refusal @ 18.0' |

File: 2506102.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-103

**Project:** Mt. Hope Project
**DAY Representative:** J. Doraty
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Start Date:** 05/04/01
**Borehole Diameter:** 3 inches
**Water Level:** Not encountered

**Datum:** NA
**Completion Date:** 05/07/01
**Borehole Depth:** 18.0 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 75 | NA | 0.0 | | Tan and Brown Sand, Silt, Gravel, Wood, Organics, damp (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | |
| 4 | | | | | | 0.0 | | |
| 5 | | S-2 | 4-8 | 50 | NA | 0.0 | | |
| 6 | | | | | | 0.0 | | |
| 7 | | | | | | 0.0 | | Tan Sand, Silt, Organics, Clay, moist (FILL) |
| 8 | | | | | | 1.7 | | ... dark staining with slight weathered petroleum odor at 7.5' |
| 9 | | S-3 | 8-11 | 70 | NA | 1.3 | | |
| 10 | | | | | | 7.9 | | ... Brick fragments, coarse Sand, Cinders, wet |
| 11 | | | | | | 3.2 | | ... strong petroleum odor |
| 12 | | S-4 | 11-14 | 60 | NA | 1.4 | | |
| 13 | | | | | | 0.8 | | Tan Silty SAND, some Gravel, damp |
| 14 | | | | | | 50.7 | | |
| 15 | | S-5 | 14-18 | 50 | NA | 13.7 | | Reddish Brown Silty SAND and GRAVEL, trace Clay, moist |
| 16 | | | | | | 3.5 | | |
| 17 | | | | | | 1.7 | | |
| 18 | | | | | | 0.3 | | ... angular Rock fragments |
| 19 | | | | | | 0.1 | | |
| 20 | | | | | | 0.1 | | Refusal @ 18.0' |

File: 2506S-03.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-104

**Project:** ML Hope Project
**DAY Representative:** J. Dorety
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 05/04/01
**Completion Date:** 05/07/01
**Borehole Diameter:** 3 inches
**Borehole Depth:** 16.3 feet
**Water Level:** Not encountered

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 90 | NA | 0.0 | | Tan Silt, Sand, Gravel, Roots, Glass, Cinders, damp (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | Brown Silt, Sand, Gravel, Clay, Organics, Brick, Ash, damp (FILL) |
| 4 | | | | | | 12.4 | | ... weathered petroleum odor |
| 5 | | S-2 | 4-8 | 90 | NA | 58.6 | | |
| 6 | | | | | | 12.8 | | ... seam of Gravel |
| 7 | | | | | | 67.9 | | |
| 8 | | | | | | 53.1 | | |
| 9 | | S-3 | 8-12 | 80 | NA | 57.8 | | ... dark staining |
| 10 | | | | | | 47.1 | | ... intermixed Ash, Brick, Wood |
| 11 | | | | | | 77.8 | | |
| 12 | | | | | | 74.1 | | |
| 13 | | S-4 | 12-14 | 60 | NA | 217 | | |
| 14 | | | | | | 131 | | |
| 15 | | S-5 | 14-18 | 50 | NA | 38.4 | | |
| 16 | | | | | | 19.0 | | Reddish brown Silty SAND and GRAVEL, moist |
| | | | | | | 1.3 | | ... petroleum odors decreasing |
| 17 | | | | | | | | Refusal @ 16.3' |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

File: 2506S-04.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-122

**Project:** Mt. Hope Project
**DAY Representative:** J. Dorety
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 05/04/01
**Completion Date:** 05/07/01
**Borehole Diameter:** 3 inches
**Borehole Depth:** 18.1 feet
**Water Level:** Approximately 14 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 80 | NA | 0.0 | | Tan Sand, Silt, Gravel, Roots, Cinders, damp (FILL) |
| 2 | | | | | | 0.0 | | Brown Sand, Silt, Gravel, Cinders, Ash, Asphalt, damp (FILL) |
| 3 | | | | | | 0.0 | | |
| 4 | | | | | | 0.0 | | Tan and brown Silt, Sand, Gravel, Clay, Cinders, Ash, moist (FILL) |
| 5 | | S-2 | 4-8 | 40 | NA | 0.0 | | |
| 6 | | | | | | 0.0 | | |
| 7 | | | | | | 0.0 | | |
| 8 | | | | | | 0.0 | | Reddish Brown Sand, Ash, Slag, Coal, Cinders, Brick, damp (FILL) |
| 9 | | S-3 | 8-12 | 70 | NA | 0.0 | | |
| 10 | | | | | | 0.0 | | Dark Brown Silt, Organics, fine Sand, Clay, moist (FILL) |
| 11 | | | | | | 0.0 | | Olive Gray Silty CLAY, little fine Sand, moist |
| 12 | | | | | | 0.0 | | |
| 13 | | | | | | 0.0 | | |
| 14 | | S-4 | 12-16 | 50 | NA | 0.0 | | ... wet |
| 15 | | | | | | 0.0 | | |
| 16 | | | | | | 0.0 | | |
| 17 | | S-5 | 16-18.1 | 40 | NA | 0.0 | | Reddish gray Silty SAND and GRAVEL, trace Clay, damp |
| 18 | | | | | | 0.0 | | |
| 19 | | | | | | | | Refusal @ 18.1' |
| 20 | | | | | | | | |

File: 2506S-G.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-123

**Project:** Mt. Hope Project
**DAY Representative:** J. Blanchard
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA **Datum:** NA
**Start Date:** 05/09/01 **Completion Date:** 05/09/01
**Borehole Diameter:** 3 inches **Borehole Depth:** 18.0 feet
**Water Level:** Approximately 13.4 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | 0.0 | | Brown Sand and Cobbles, little Slag, damp (FILL) |
| 2 | | S-1 | 0-4 | 80 | NA | 0.0 | | |
| 3 | | | | | | 0.0 | | |
| 4 | | | | | | | | Brown to tan Silt and Clay, little Slag and Wood, damp (FILL) |
| 5 | | | | | | 0.0 | | |
| 6 | | S-2 | 4-8 | 70 | NA | 0.0 | | |
| 7 | | | | | | 0.0 | | |
| 8 | | | | | | | | |
| 9 | | | | | | 0.0 | | ... layer of Slag |
| 10 | | S-3 | 8-12 | 85 | NA | 0.0 | | ... layer of Peat |
| 11 | | | | | | 0.0 | | |
| 12 | | | | | | | | Gray, CLAY, little Silt, moist |
| 13 | | | | | | 0.0 | | |
| 14 | | S-4 | 12-16 | 100 | NA | 0.0 | | ... wet |
| 15 | | | | | | 0.0 | | ...little Cobbles |
| 16 | | | | | | | | |
| 17 | | S-5 | 16-18 | 100 | NA | 0.0<br>0.0<br>0.0 | | |
| 18 | | | | | | | | Refusal @ 18.0' |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

File: 2506S-H.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-124

**Project:** ML Hope Project
**DAY Representative:** J. Blanchard
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 05/09/01
**Completion Date:** 05/09/01
**Borehole Diameter:** 3 inches
**Borehole Depth:** 19.0 feet
**Water Level:** Approximately 15.6 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 100 | NA | 0.0 | | Brown Sand, Silt and Gravel, little Cobbles and Brick, trace Slag, damp (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | |
| 4 | | | | | | | | |
| 5 | | S-2 | 4-8 | 70 | NA | 0.0 | | Brown Sand, little Silt, little Clay, little Slag, trace glass, damp (FILL) |
| 6 | | | | | | 0.0 | | |
| 7 | | | | | | 0.0 | | |
| 8 | | | | | | | | |
| 9 | | S-3 | 8-12 | 85 | NA | 0.0 | | ... little Clay |
| 10 | | | | | | 0.0 | | Brown SAND and GRAVEL, little Clay, trace Cobbles, moist |
| 11 | | | | | | 0.0 | | |
| 12 | | | | | | | | |
| 13 | | S-4 | 12-16 | 100 | NA | 0.0 | | |
| 14 | | | | | | 0.0 | | |
| 15 | | | | | | 0.0 | | Brown to gray SAND, moist to wet |
| 16 | | | | | | | | |
| 17 | | S-5 | 16-19 | 100 | NA | 0.0 | | |
| 18 | | | | | | 0.0 | | ... little Gravel |
| 19 | | | | | | 0.0 | | |
| 20 | | | | | | | | Refusal @ 19.0' |

File: 2506S-I.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-125

**Project:** Mt. Hope Project
**DAY Representative:** J. Blanchard
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** 4' acetate sleeve
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 05/09/01
**Completion Date:** 05/09/01
**Borehole Diameter:** 3 inches
**Borehole Depth:** 20.0 feet
**Water Level:** Approximately 17.4 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 100 | NA | 0.0 | | Brown Sand and Gravel, little Cobbles, damp (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | ... little Clay |
| 4 | | | | | | | | |
| 5 | | S-2 | 4-8 | 70 | NA | 0.0 | | |
| 6 | | | | | | 0.0 | | |
| 7 | | | | | | 0.0 | | |
| 8 | | | | | | | | |
| 9 | | S-3 | 8-12 | 100 | NA | 0.0 | | ... trace Slag |
| 10 | | | | | | 0.0 | | ... trace Brick |
| 11 | | | | | | 0.0 | | |
| 12 | | | | | | | | Brown SAND and SILT, little Clay, trace Cobbles, damp |
| 13 | | S-4 | 12-16 | 100 | NA | 0.0 | | Brown CLAY, little Gravel, trace Cobbles, damp |
| 14 | | | | | | 0.0 | | |
| 15 | | | | | | 0.0 | | Brown SAND and GRAVEL, some Cobbles, moist |
| 16 | | | | | | | | |
| 17 | | S-5 | 16-18 | 90 | NA | 0.0 | | ... wet |
| 18 | | | | | | | | |
| 19 | | S-6 | 18-20 | 70 | NA | 0.0 | | |
| 20 | | | | | | 0.0 | | |
| | | | | | | | | BOH @ 20.0' |

File: 2506S-J.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-A

**Project:** Mt. Hope Project
**DAY Representative:** A. Farrell
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** NA
**Sampling Method:** GeoProbe
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 05/24/01
**Completion Date:** 05/24/01
**Borehole Diameter:** 3 inches
**Borehole Depth:** 16.3 feet
**Water Level:** Approximately 10.6 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1-4 | | S-1 | 0-4 | 95 | NA | 0.0<br>0.0<br>0.0<br>0.0 | | Brown, Sand, Silt, Brick, Asphalt, Ash, Slag, moist |
| 5-8 | | S-2 | 4-8 | 70 | NA | 0.0<br>0.0<br>0.0<br>0.0 | | Light Tan Brick, Ash, Slag, Coal, Clay, Sand, moist (FILL) |
| 9-12 | | S-3 | 8-12 | 60 | NA | 0.0<br>0.0<br>0.0<br>0.0 | | ... seam of rust coloring<br>... wet<br>Dark Brown Silty SAND, some Clay, some Gravel, wet |
| 13-16 | | S-4 | 12-16.3 | 60 | NA | 0.0<br>0.0<br>0.0<br>0.0 | | |
| 17-20 | | | | | | | | Refusal @ 16.3' |

File: 2506A2.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-B

**Project:** Mt. Hope Project
**DAY Representative:** A. Farrell
**Drilling Contractor:** Lyon Drilling
**Drilling Rig:** CME 55
**Sampling Method:** GeoProbe Sampler
**Completion Method:** Backfilled with cuttings

**Project No:** 2506S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Start Date:** 05/24/01
**Borehole Diameter:** 3 inches
**Water Level:** Approximately 12 feet

**Datum:** NA
**Completion Date:** 05/24/01
**Borehole Depth:** 20.0 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | S-1 | 0-4 | 90 | NA | 0.0 | | Brown, Silt, Sand, Asphalt, Brick, Ash, Moist (FILL) |
| 2 | | | | | | 0.0 | | |
| 3 | | | | | | 0.0 | | |
| 4 | | | | | | 0.0 | | Dark Brown to Red coarse Sand, some Gravel, Moist (FILL) |
| 5 | | S-2 | 4-8 | 60 | NA | 0.0 | | |
| 6 | | | | | | 0.0 | | Dark Brown Silty coarse SAND, some Gravel, moist |
| 7 | | | | | | 0.0 | | |
| 8 | | | | | | 0.0 | | |
| 9 | | S-3 | 8-12 | 20 | NA | 0.0 | | |
| 10 | | | | | | 0.0 | | |
| 11 | | | | | | 0.0 | | |
| 12 | | | | | | 0.0 | | ... wet |
| 13 | | S-4 | 12-16 | 50 | NA | 0.0 | | |
| 14 | | | | | | 0.0 | | |
| 15 | | | | | | 0.0 | | |
| 16 | | | | | | 0.0 | | ... seam of fractured rock |
| 17 | | S-5 | 16-20 | 30 | NA | 0.0 | | |
| 18 | | | | | | 0.0 | | |
| 19 | | | | | | 0.0 | | |
| 20 | | | | | | 0.0 | | |
| 21 | | | | | | | | BOH @ 20.0' |

File: 2506S-B.LOG

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-1

**Project:** Mt. Hope Avenue, Rochester, New York
**DAY Representative:** Dennis M. Peck
**Drilling Contractor:** Nothnagle Drilling
**Drilling Rig:** CME-75
**Sampling Method:** Macro Core
**Completion Method:** Backfilled with cuttings

**Project No:** 2395S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Start Date:** 8/23/00
**Borehole Diameter:** 3 inches
**Water Level:** Approximately 12 feet

**Datum:** NA
**Completion Date:** 8/23/00
**Borehole Depth:** 19.1 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | Grass, topsoil. |
| 2 | NA | S-1 | 0-4 | 80 | NA | 0.3 | | Tan Fine Sand and Gravel, moist (FILL). |
| 3 | | | | | | | | Black Cinders and Coal (FILL). |
| 4 | | | | | | 0.3 | | |
| 5 | | | | | | | | ... yellow/black Ash. |
| 6 | | S-2 | 4-8 | 60 | | 0.4 | | |
| 7 | | | | | | | | ... black fine cinders, moist. |
| 8 | | | | | | | | |
| 9 | | | | | | | | Green/Gray SILT, little Sand, trace Clay, moist, black streaks, swampy odor. |
| 10 | | S-3 | 8-12 | 50 | | 0.5 | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | GRAVEL, wet. |
| 13 | | | | | | | | Green/Gray fine SAND, wet. |
| 14 | | S-4 | 12-16 | 60 | | 0.4 | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | ... color change to tan at approximately 15.8'-16.0'. |
| 17 | | | | | | | | |
| 18 | | S-5 | 16-19.12 | | | 0.5 | | ... medium SAND, wood. |
| 19 | | | | | | | | ... Rock Fragments. Equipment Refusal. |
| 20 | | | | | | | | BOH at 19.1'. |

File: 2395S001.log

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-2

**Project:** Mt. Hope Avenue, Rochester, New York
**DAY Representative:** Dennis M. Peck
**Drilling Contractor:** Nothnagle Drilling
**Drilling Rig:** CME-75
**Sampling Method:** Macro Core
**Completion Method:** Backfilled with cuttings

**Project No:** 2395S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 8/23/00
**Completion Date:** 8/23/00
**Borehole Diameter:** 3 inches
**Borehole Depth:** 20 feet
**Water Level:** Approximately 12 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | Grass and topsoil. |
| 1 | | | | | | | | ... Brown Sand and Gravel, trace bricks, moist (FILL). |
| 2 | NA | S-1 | 0-4 | 70 | NA | 0.4 | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | Black fine to medium cinders, moist [FILL]. |
| 5 | | | | | | | | |
| 6 | | S-2 | 4-8 | 60 | | 0.2 | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | Gray fine SAND and SILT, trace Gravel, damp. |
| 9 | | | | | | | | |
| 10 | | S-3 | 8-12 | 20 | | 0.1 | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | ... wet at approximately 12 feet. |
| 13 | | | | | | | | ... Gray to Black (13'-14'). |
| 14 | | S-4 | 12-16 | 90 | | 0.5 | | Green/Gray fine SAND. |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | ... SILT and SAND, trace Clay. |
| 18 | | S-5 | 16-20 | | | | | |
| 19 | | | | | | | | SAND and GRAVEL. |
| 20 | | | | | | | | BOH at 20'. |

File: 2395S002.log

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-5

**Project:** Mt. Hope Avenue, Rochester, New York
**DAY Representative:** Dennis M. Peck
**Drilling Contractor:** Nothnagle Drilling
**Drilling Rig:** CME-75
**Sampling Method:** Macro Core
**Completion Method:** Backfilled with cuttings

**Project No:** 2395S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 8/23/00
**Completion Date:** 8/23/00
**Borehole Diameter:** 3 Inches
**Borehole Depth:** 18.9 feet
**Water Level:** Approximately 14 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1-4 | NA | S-1 | 0-4 | 80 | NA | 4.5 | | Grass and topsoil.<br>Brown Sand and Gravel, little Silt, moist (FILL). |
| 5-8 | | S-2 | 4-8 | 60 | | 7.3 | | |
| 9-12 | | S-3 | 8-12 | 30 | | 28.3 | | Gravel and Black coarse Cinders, (FILL), petroleum odor, damp. |
| 13-16 | | S-4 | 12-16 | 90 | | 24.5<br>1.0 | | Gray fine SAND, little Gravel (GLACIAL TILL), damp, slight petroleum odor. |
| 17-18 | | S-5 | 16-18.9 | 80 | | 11.7 | | ... slight petroleum odor. |
| 19 | | | | | | | | Equipment refusal. |
| 20 | | | | | | | | BOH at 18.9'. |

File: 2395S005.log

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-9

**Project:** Mt. Hope Avenue, Rochester, New York
**DAY Representative:** Dennis M. Peck
**Drilling Contractor:** Nothnagle Drilling
**Drilling Rig:** CME-75
**Sampling Method:** Macro Core
**Completion Method:** Backfilled with cuttings

**Project No:** 2395S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA
**Datum:** NA
**Start Date:** 8/23/00
**Completion Date:** 8/23/00
**Borehole Diameter:** 3 inches
**Borehole Depth:** 20 feet
**Water Level:** Approximately 14 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1-4 | NA | S-1 | 0-4 | 80 | NA | 0.0 | | Grass and topsoil.<br>Gravel (FILL).<br>Black coarse Cinders and Ash (FILL). |
| 5-8 | | S-2 | 4-8 | 80 | | 0.0 | | Gray SILT, little Gravel, trace Sand, moist. |
| 9-12 | | S-3 | 8-12 | 60 | | 0.0 | | ... Gray/Green SILT, some Clay, black streaks, damp. |
| 13-16 | | S-4 | 12-16 | 80 | | 0.0 | | ... SILT and CLAY, trace wood. |
| 17-20 | | S-5 | 16-20 | 70 | | 0.0 | | Gray/Green fine SAND, little Silt, wet.<br>... medium SAND lenses.<br>BOH at 20'. |

File: 2395S009.log

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: TB-36

**Project:** Mt. Hope Avenue, Rochester, New York
**DAY Representative:** Dennis M. Peck
**Drilling Contractor:** Nothnagle Drilling
**Drilling Rig:** CME-75
**Sampling Method:** Macro Core
**Completion Method:** Backfilled with cuttings

**Project No:** 2395S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA **Datum:** NA
**Start Date:** 8/28/00 **Completion Date:** 8/28/00
**Borehole Diameter:** 3 inches **Borehole Depth:** 17.8 feet
**Water Level:** approximately 12 feet

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Grass and Topsoil. |
| 1-4 | NA | S-1 | 0-4 | 70 | NA | 0.0 | | Brown Silt and Gravel (FILL), moist.<br>... Bricks.<br>... Rock Fragments.<br>... Coarse Cinders 3-5 feet. |
| 5-8 | | S-2 | 4-8 | 40 | | 0.1 | | Brown Silt, little fine Sand, little Bricks (FILL), moist. |
| 9-12 | | S-3 | 8-12 | 90 | | 0.0 | | Tan-Gray SILT and CLAY, damp.<br>... Silty SAND, little Clay, damp/wet.<br>... SILT, little Clay, little Sand, damp/wet. |
| 13-16 | | S-4 | 12-16 | 90 | | 0.0 | | |
| 17 | | S-5 | 16-17.8 | 90 | | | | Equipment Refusal. |
| 18-20 | | | | | | | | BOH at 17.8'. |

File: 2395S036.log

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: MW-1

**Project:** Mt. Hope Avenue, Rochester, New York
**DAY Representative:** Dennis M. Peck
**Drilling Contractor:** Nothnagle Drilling
**Drilling Rig:** CME-75
**Sampling Method:** Split Spoon
**Completion Method:** 2" PVC Well

**Project No:** 2395S-00
**Boring Location:** See Site Plan
**Ground Surface Elevation:** NA **Datum:** NA
**Start Date:** 8/29/00 **Completion Date:** 8/29/00
**Borehole Diameter:** 8" **Borehole Depth:** 20 feet
**Water Level:** 16.17 BTC at 0730 - 8/30/00

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | 7<br>11<br>18<br>21 | S-1 | 0-2 | 50 | 29 | 0.9 | | Grass and topsoil.<br>Brown Silt and Gravel, moist (FILL). |
| 2 | 57<br>100-3 | S-2 | 2-2.8 | 20 | 100+ | 0.6 | | Note: rock in sample tip. |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | 5<br>5<br>4<br>4 | S-3 | 4-6 | 30 | 9 | 3.2 | | |
| 6 | | | | | | | | |
| 7 | 3<br>3<br>2<br>3 | S-4 | 6-8 | 40 | 5 | 16.0 | | ... black staining, petroleum odor, moist. |
| 8 | | | | | | | | |
| 9 | 1<br>4<br>7<br>4 | S-5 | 8-10 | 40 | 11 | 911 | | ... Sand, little Silt, strong petroleum odor, damp/wet. |
| 10 | | | | | | | | |
| 11 | 3<br>11<br>18<br>23 | S-6 | 10-12 | 40 | 29 | 714 | | ... Rock Fragments. |
| 12 | | | | | | | | Gray SILT and fine SAND, (GLACIAL TILL) trace Gravel, wet, odors decreasing, black streaks. |
| 13 | 21<br>17<br>18<br>15 | S-7 | 12-14 | 40 | 35 | 79.0 | | |
| 14 | | | | | | | | |
| 15 | 7<br>14<br>18<br>24 | S-8 | 14-16 | 60 | 32 | 14.2 | | |
| 16 | | | | | | | | |
| 17 | 34<br>29<br>25<br>26 | S-9 | 16-18 | 90 | 54 | 6.7 | | fine SAND, trace Gravel, wet.<br>... medium to coarse SAND, wet. |
| 18 | | | | | | | | |
| 19 | 29<br>24<br>32<br>40 | S-10 | 18-20 | 90 | 56 | 5.7 | | ... fine SAND and GRAVEL. |
| 20 | | | | | | | | BOH at 20'. |

File: 2395SMW1.log

Day Environmental, Inc.
2144 Brighton-Henrietta T.L. Rd.
Rochester, New York 14623
(716) 292-1090

# BORING NUMBER: MW-7

**Project:** Mt. Hope Avenue, Rochester, New York
**Project No:** 2395S-00
**DAY Representative:** Dennis M. Peck
**Boring Location:** See Site Plan
**Drilling Contractor:** Nothnagle Drilling
**Ground Surface Elevation:** NA
**Datum:** NA
**Drilling Rig:** CME-75
**Start Date:** 8/31/00
**Completion Date:** 8/31/00
**Sampling Method:** Split Spoon
**Borehole Diameter:** 8"
**Borehole Depth:** 20 feet
**Completion Method:** 2" PVC Monitoring Well
**Water Level:**

| Depth (feet) | Blows per 0.5' | Number | Depth (feet) | % Recovery | N-Value or RQD % | Peak PID Reading (ppm) | Well Installation Log | Sample Description |
|---|---|---|---|---|---|---|---|---|
| 1 | 3<br>10<br>7<br>7 | S-1 | 0-2 | 30 | 17 | 0.4 | | Grass and topsoil. |
| | | | | | | | | Brown Silt, little Gravel (FILL). |
| 2 | 7<br>10<br>12<br>12 | S-2 | 2-4 | 40 | 22 | 0.5 | | Black fine to coarse Cinders, moist (FILL). |
| 4 | | | | | | | | |
| 5 | 6<br>10<br>5<br>5 | S-3 | 4-6 | 30 | 15 | 0.5 | | Brown Silt, little Gravel, trace Bricks, moist (FILL). |
| 6 | | | | | | | | |
| 7 | 8<br>6<br>5<br>2 | S-4 | 6-8 | 40 | 11 | 0.5 | | ... Gray/Brown fine SAND, some Silt, trace Gravel, damp. |
| 8 | | | | | | | | |
| 9 | 1<br>2<br>2<br>2 | S-5 | 8-10 | 40 | 4 | 0.4 | | |
| 10 | | | | | | | | ... Gray/Green SILT and CLAY, damp. |
| 11 | 2<br>2<br>4<br>5 | S-6 | 10-12 | 60 | 6 | 0.6 | | |
| 12 | | | | | | | | |
| 13 | 4<br>4<br>4<br>4 | S-7 | 12-14 | 60 | 8 | 0.6 | | |
| 14 | | | | | | | | |
| 15 | WH<br>WH<br>WH<br>1 | S-8 | 14-16 | 80 | 0 | 0.7 | | ... fine SAND and CLAY, wet. |
| 16 | | | | | | | | |
| 17 | 6<br>6<br>12<br>12 | S-9 | 16-18 | 60 | 18 | 0.7 | | ... Medium SAND, some Silt, little Gravel, wet. |
| 18 | | | | | | | | Gray very fine SAND, little Silt, trace Gravel (Glacial Till), wet. |
| 19 | 3<br>8<br>16<br>26 | S-10 | 18-20 | 60 | 24 | | | |
| 20 | | | | | | | | BOH at 20'. |

File: 2395SMW7.log

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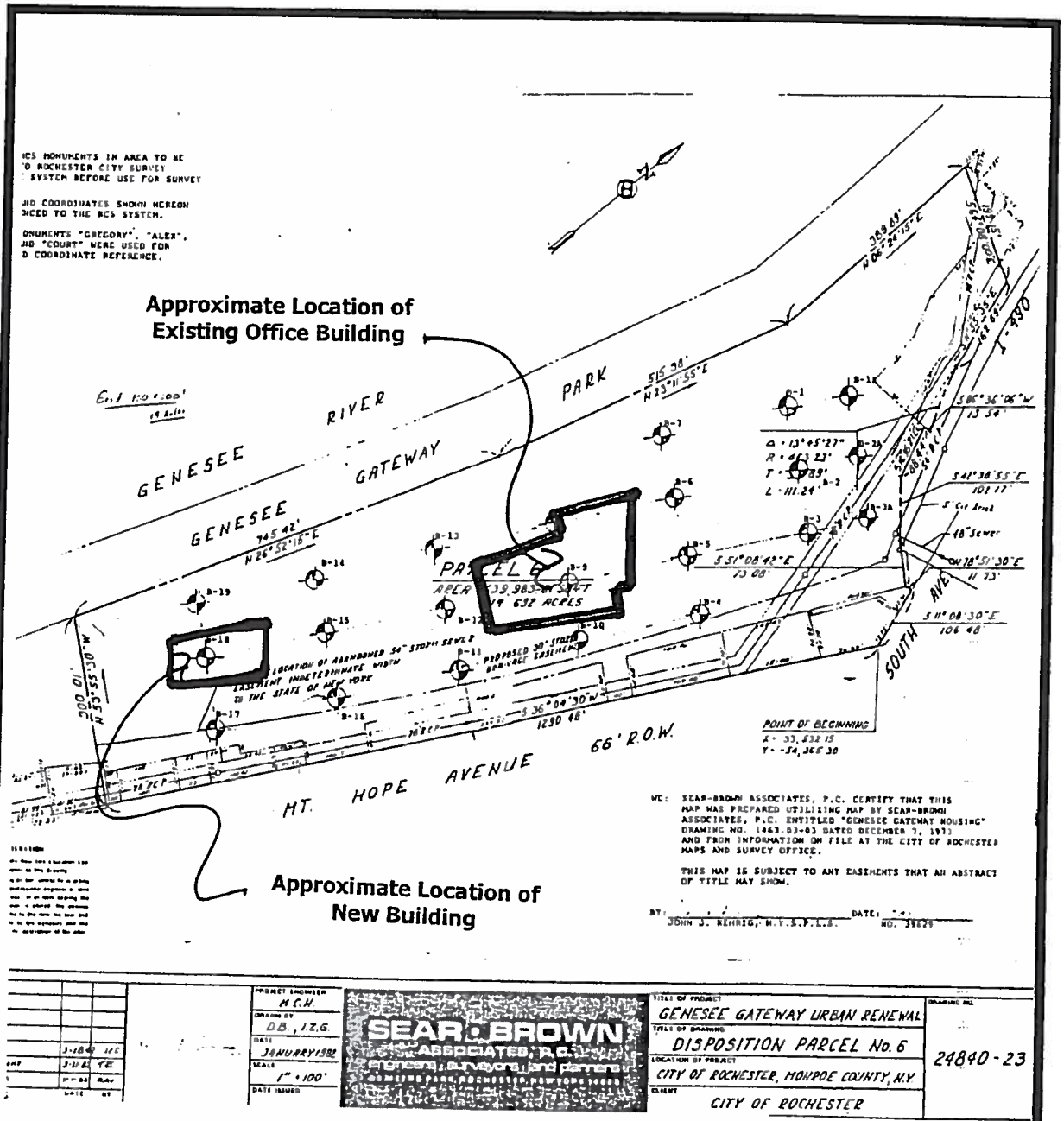
# APPENDIX D

1982 Test Boring Locations
1982 Test Boring Logs




# FOUNDATION DESIGN, P.C.


335 Colfax Street, Rochester, New York 14606
(585) 458-0824 FAX (585) 458-3323
E-mail: FDPC@Frontiernet.net


## Time Warner Cable

151 Mt. Hope, Rochester, New York

## 1982 Test Boring Locations

Adapted from: January 1982 Sear Brown Associates, PC

*Genesee Gateway Urban Renewal - Disposition Parcel No. 6-*

| | | | |
|---|---|---|---|
| DRAWN BY: | JRH | DATE: | 3-15-03 |
| CHECKED BY: | JDN | JOB. NO.: | 2746.0 |

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# BORING TERMS AND SYMBOLS

| | |
|---|---|
| N | The number of blows from a 140 pound hammer falling 30 inches needed to drive a split-spoon sampler the last 12 inch penetration of the sample. |
| C | The number of blows from a 300 pound hammer falling 24 inches needed to drive casing 12 inches. |
| 100/1 inch | Number of blows needed to drive sampler or casing the distance shown. Used for indicating refusal. |
| WR | Sampler advanced by the weight of rods only, indicating very soft material. |
| WH | Sampler or casing advanced by weight of hammer only, indicating very soft material. |
| ST | Shelby Tube Sampler (piston sample or pressed tube sample). |
| CS | Continuous sampling |
| AX | 1 1/8 inch rock core. |
| BX | 1 5/8 inch rock core. |
| NX | 2 1/8 inch rock core. |
| 75% | Percentage of rock core recovered. |
| P.L. | Plastic limit. |
| L.L. | Liquid limit. |
| M.C. | Moisture content--Dry, Damp, Moist, Wet, Saturated. |
| H.C. | Boring caved after casing or augers were removed. |
| W.C. | Weight of casing only, indicating very soft material. |

NOTE: WE CANNOT BE RESPONSIBLE FOR INTERPRETATIONS OR OPINIONS MADE BY OTHERS FROM THE ENCLOSED DATA.

Rochester Drilling CO INC

**Refusal** — Depth in boring where more than 150 blows per foot are needed to advance the sample spoon.

**Cohesive Soil** — Very fine grained soils with appreciable dry strength. Plastic--can be rolled into a thin thread when damp with no apparent water movement. Clays and silty to sandy clays show cohesion.

| Description | Penetration Resistance Blows/Foot |
|---|---|
| Very Soft | 0 - 2 |
| Soft | 3 - 5 |
| Medium | 6 - 15 |
| Stiff | 16 - 25 |
| Hard | 26 or more |

**Non-Cohesive Soil** — Soils composed of silt, sand, and gravel, show no cohesion and only slight plasticity.

| Description | Penetration Resistance Blows/Foot |
|---|---|
| Loose | 0 - 10 |
| Firm | 11 - 25 |
| Compact | 26 - 40 |
| Dense | 41 - 50 |
| Very Dense | 51 or more |

| Composition | Estimated Percentage |
|---|---|
| And | 50 |
| Some | 30 - 49 |
| Little | 11 - 29 |
| Trace | 0 - 10 |

NOTE: WE CANNOT BE RESPONSIBLE FOR INTERPRETATIONS OR OPINIONS MADE BY OTHERS FROM THE ENCLOSED DATA.

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-11

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/21/82 COMPLETED 5/21/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – None AT COMPLETION 5 /21 TIME _____

BELOW SURFACE – CASING OUT – _____ –WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Miscellaneous fill consisting of black damp cinders, ashes, bricks, glass, wood, concrete fragments, etc. |
| 5 | | 16 | 9 | | | | | | |
| | | | | 11 | 15 | 20 | 1 | 5'0"-7'0" | |
| | | 4 | 6 | | | | | | |
| 10 | | | | 8 | 12 | 14 | 2 | 8'0"-10'0" | 9'( |
| | | | | | | | | | Firm greenish gray moist fine sandy silt, trace of clay and fine gravel |
| | | 6 | 8 | | | | | | |
| 15 | | | | 6 | 7 | 14 | 3 | 13'0"-15'0" | Firm greenish gray moist 15'( |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA. BI
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BI

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45 STEEL STREET • ROCHESTER, NEW YORK 14606 • 1-716-458-0821 • TELEX: 978-462

PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-12

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/21/82 COMPLETED 5/21/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – 8'0" AT COMPLETION 5/21 TIME _____

BELOW SURFACE – CASING OUT – _____ –WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Miscellaneous fill consisting of brown black cinders, ashes, asphalt, coal, sand, gravel, silt, wood, organic matter, etc. |
| 5 | | 50 | 27 | | | | | | |
| | | | | 19 | 16 | 46 | 1 | 5'0"-7'0" | Miscellaneous fill black brown wet |
| | | 7 | 3 | | | | | | |
| 10 | | | | 2 | 3 | 5 | 2 | 8'0"-10'0" | Miscellaneous fill black brown moist |
| | | | | | | | | | 12' |
| | | WOH/6 | 7 | | | | | | Firm greenish gray moist fine sandy silt, trace of clay and fine gravel |
| 15 | | | | 13 | 12 | 20 | 3 | 13'0"-15'0" | Firm greenish gray moist |
| | | | | | | | | | 19 |
| 20 | | | | | | | | | Boring terminated at 19'0" (Refusal) |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA.
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA.

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-13

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/21/82 COMPLETED 5/21/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – None AT COMPLETION 5/ 21 TIME _____

BELOW SURFACE – CASING OUT – _____ –WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Miscellaneous fill consisting of brown black damp silt, sand, gravel, cinders, ashes, brick fragments, concrete |
| 5 | | | | | | | | | |
| | | 41 | 66 | | | | | | 6 |
| | | | | 37 | 15 | 103 | 1 | 5'0"-7'0" | Miscellaneous fill consisting of large pi of wood, cinders, ashes, etc. 8 |
| 10 | | WOH | 7 | | | | | | Miscellaneous fill consisting of large pieces of wood |
| | | | | 54 | | | 2 | 9'0"-11'0" | |
| | | 50/1 | | | | | 3 | 11'0"-11'1" | |
| | | 150/2 | | | | | 4 | 11'1"-11'3" | Miscellaneous fill- wood |
| 15 | | | | | | | | | 15 |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30 EA. I
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. I

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-14

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/20/82 COMPLETED 5/20/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – None AT COMPLETION 5/ 20 TIME _____

BELOW SURFACE – CASING OUT – _____ -WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 5 | | 17 | 20 | | | | | | Miscellaneous fill consisting of brown moist silt, sand, gravel, organic matter, cinders, ashes, etc. |
| | | | | 16 | 9 | 36 | 1 | 5'0"-7'0" | Miscellaneous fill - brown damp |
| | | 5 | 6 | | | | | | |
| 10 | | | | 12 | 12 | 18 | 2 | 8'0"-10'0" | Miscellaneous fill - brown damp |
| | | | 4 | | | | | | 13'( |
| 15 | | | | 8 | 5 | 12 | 3 | 13'0"-15'0" | Firm greenish gray damp fine sandy silt, trace of clay 15'( |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA. BI
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BI

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-15

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/20/82 COMPLETED 5/20/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – 12'0" AT COMPLETION 5/ 20 TIME _____

BELOW SURFACE – CASING OUT – _____ –WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Miscellaneous fill consisting of brown damp silt, sand, gravel, trace of cinders, ashes etc. |
| 5 | | | | | | | | | |
| | | 20 | 18 | | | | | | Miscellaneous fill - brown damp |
| | | | | 33 | 28 | 51 | 1 | 5'0"-7'0" | 7'0" |
| | | 2 | 2 | | | | | | Medium greenish gray moist clayey silt, little fine sand |
| 10 | | | | 5 | 3 | 7 | 2 | 8'0"-10'0" | |
| | | | | | | | | | 13'0" |
| | | 10 | 14 | | | | | | Hard brown moist fine sandy silt, trace of clay and fine gravel |
| 15 | | | | 11 | 6 | 25 | 3 | 13'0"-15'0" | 15'0" |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30 EA. BL
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. " EA. BL

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-16

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/19/82 COMPLETED 5/19/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – None AT COMPLETION 5/19 TIME _____

BELOW SURFACE – CASING OUT – _____ –WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 0'0"-2'0" Auger sample | Miscellaneous fill consisting of tan wet clay, silt, sand, gravel, etc. 2'0 |
| 5 | | 7 | 7 | | | | | | Miscellaneous fill consisting of brown gray clayey silt, trace of fine sand and gravel, trace of cinders, glass, etc. |
| | | | | 7 | 7 | 14 | 2 | 5'0"-7'0" | 8'6 |
| 10 | | | | | | | | | Miscellaneous fill consisting of brown mois silt, sand, clay, gravel, wood pieces, bricks, concrete pieces, etc. |
| | | 2 | 6 | | | | | | |
| | | | | 7 | 7 | 13 | 3 | 9'6"-11'6" | 13'0 |
| | | 4 | 5 | | | | | | Medium greenish gray moist fine sandy silt, |
| 15 | | | | 5 | 6 | 10 | 4 | 13'0"-15'0" | trace of clay and fine gravel 15'0 |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB.-WT. 30" EA. BL
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BL

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-17

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/19/82 COMPLETED 5/19/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – 12'6" AT COMPLETION 5/ 19 TIME _____

BELOW SURFACE – CASING OUT – _____ –WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Miscellaneous fill consisting of brown black damp gravel, sand, silt, brick fragments, concrete, etc. |
| 5 | | | | | | | | | |
| | | 8 | 22 | | | | | | Miscellaneous fill - gray damp |
| | | | | 12 | 12 | 34 | 1 | 5'0"-7'0" | 8'( |
| | | 75/4 | | | | | 2 | 7'0'-7'4" | Medium gray wet organic clayey silt, trace of fine sand (decomposed wood) |
| | | 6 | 5 | | | | | | |
| 10 | | | | 6 | 6 | 11 | 3 | 8'0"-10'0" | |
| | | | | | | | | | 12'( |
| | | | | | | | | | Medium gray mosit organic clayey silt, little fine sand, trace of fine gravel |
| | | 8 | 7 | | | | | | |
| 15 | | | | 7 | 7 | 14 | 3 | 13'0"-15'0" | 15'( |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA. BI
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BI

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-18

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/20/82 COMPLETED 5/20/82 TECHNICIAN T. Sweeting

GROUND WATER – CASING IN – 11'6" AT COMPLETION 5/ 20 TIME _____

BELOW SURFACE – CASING OUT – _____ -WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Miscellaneous fill consisting of brown damp sand, silt, gravel, organic matter, concrete fragments, etc. |
| 5 | | 11 | 7 | | | | | | Miscellaneous fill - brown damp |
| | | | | 5 | 5 | 12 | 1 | 5'0"-7'0" | 7'0 |
| | | 3 | 4 | | | | | | Medium greenish gray moist organic clayey silt, trace of fine sand |
| 10 | | | | 6 | 9 | 10 | 2 | 8'0"-10'0" | 10'0 |
| | | 4 | 5 | | | | | | Medium greenish gray wet fine sandy silt, trace of clay and organic matter |
| 15 | | | | 8 | 8 | 13 | 3 | 13'0"-15'0" | 15'0 |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA. BLC
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BLC

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PROJECT NO. 2461 PAGE 1 OF 1 BORING NO. B-19

PROJECT Subsurface Investigation, Parcel #6, Mt. Hope Avenue, Rochester, New York

CLIENT Farash Construction Corp., 919 South Winton Road, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 5/20/82 COMPLETED 5/20/82 TECHNICIAN T. Sweeting

GROUND WATER BELOW SURFACE – CASING IN – 11'0" AT COMPLETION 5/20 TIME _____

– CASING OUT – _____ –WELLPOINT AT _____

Hole caved in after pulling tools

Seasonal and climatic changes may alter the observed water levels

| DEPTH BELOW SURFACE | C | BLOWS ON SAMPLER 0"/6" | 6"/12" | 12"/18" | 18"/24" | N | SAMPLE NO. | DEPTH OF SAMPLE | SOIL AND ROCK CLASSIFICATION REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Miscellaneous fill consisting of brown damp silt, sand, and gravel, brick and concrete fragments, cinders, ashes, glass, etc. |
| 5 | | 22 | 25 | | | | | | |
| | | | | 17 | 12 | 42 | 1 | 5'0"-7'0" | |
| | | | | | | | | | Miscellaneous fill - brown damp |
| | | 4 | 4 | | | | | | |
| 10 | | | | 4 | 9 | 8 | 2 | 8'0"-10'0" | Miscellaneous fill - brown damp |
| | | | | | | | | | 10' |
| | | | | | | | | | Stiff greenish gray wet fine sandy silt, little clay, trace of organic matter |
| | | 8 | 11 | | | | | | |
| 15 | | | | 10 | 8 | 21 | 3 | 13'0"-15'0" | |
| | | | | | | | | | 15' |
| | | | | | | | | | Boring terminated at 15'0" |
| | | | | | | | | | Notes: Advanced test hole with hollow stem auger casing |

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA. BL
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BL

FOUNDATION DESIGN, P.C.

SOIL • ROCK • EXPLORATION • INSTRUMENTATION

# APPENDIX E

Laboratory Report

**Basic Foundations, Inc.**
Construction Material Testing & Inspection

44B State Street • Holley, New York 14470
Ph: (585) 638-0134 • Fax: (585) 638-0135

**Client:** Foundation Design
335 Colfax Street
Rochester, NY 14606

**Project:** Time Warner Cable
(#2746.0)

**Date:** 3/4/04
**Project No.:** 04-128
**Report No.:** 215

**Sample Location:** (Sampled by Client)

Dear Mr. Netzband:

Attached are the results of laboratory tests completed by our representative on 3/2/04 for the above referenced project. The samples were provided by Foundation Design and delivered to our representative on 3/4/04.

Samples were logged in, stored and tested, consistent with applicable ASTM standards. All samples were labeled by your office and designations are noted in the attachments. Any special conditions, procedures or irregularities noted during laboratory analysis are listed below.

- Sample B04-1, S-2 was reduced in the laboratory by the quartering method prior to analysis.

Basic Foundations appreciates the opportunity to do business with you. Our goal is to provide outstanding service in a timely fashion. If you have any questions, need additional information or if we can be of further assistance in any manner, please do not hesitate to call.

Sincerely,

BASIC FOUNDATIONS, INC.

William Kernan
President

Attachments: Table 1 – Water Content
Table 2 – Organic Content
Figure 1 – Particle Size Distribution

Basic Foundations, Inc.
Project Number 04-128
Report Number 215

## Table 1 Water Content

Time Warner Cable

| Source | Sample | Depth | Water Content (%) |
|---|---|---|---|
| B04-3 | S-12 | 22' - 23' | 8.9 |
| B04-5 | S-6 | 18' - 20' | 9.3 |

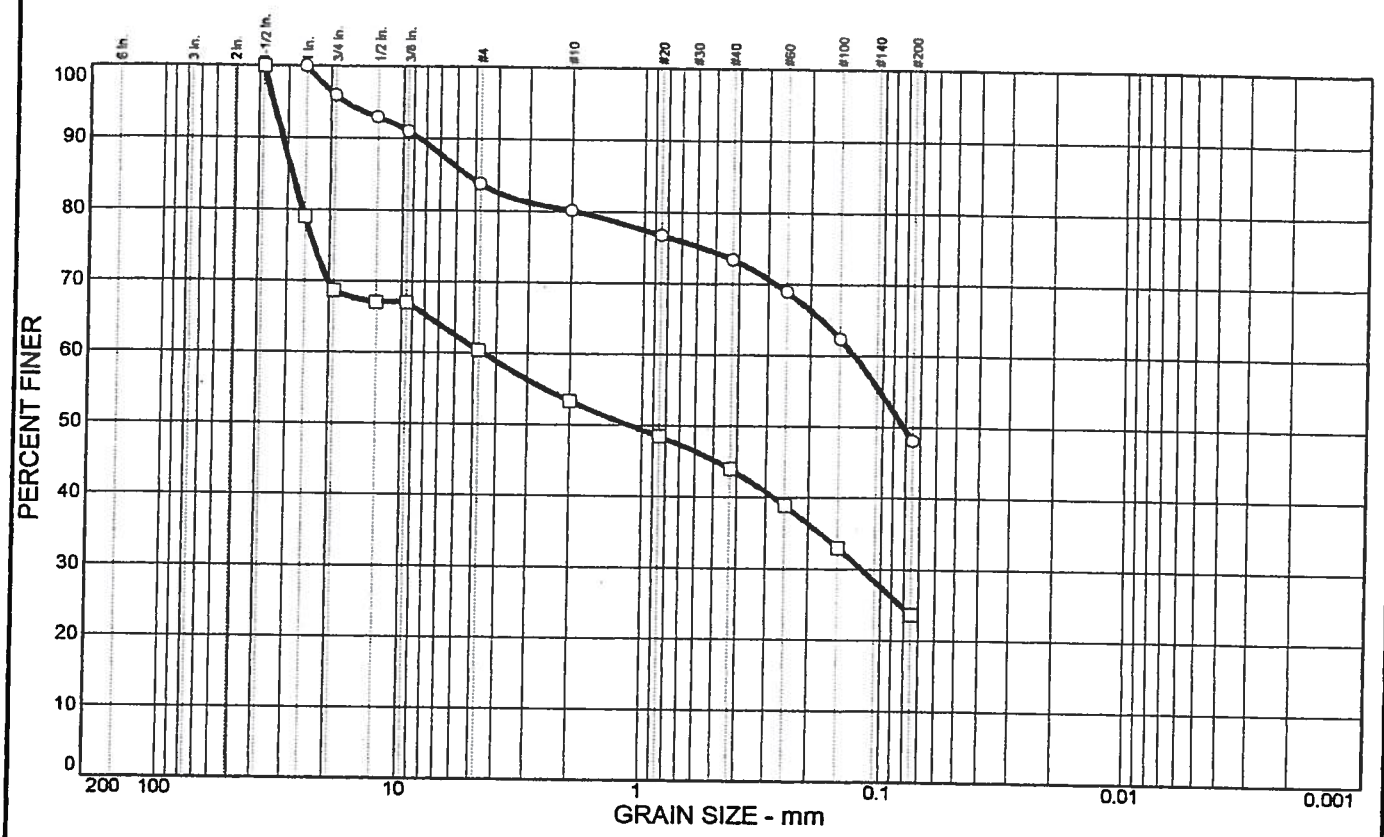
## Table 2 Organic Content

Time Warner Cable

| Source | Sample | Depth | Ash Content (%) | Organic Content (%) | Moisture Content (%) |
|---|---|---|---|---|---|
| B04-1 | S-2 | 2' - 4' | 68.6 | 31.4 | 20.6 |
| B04-1 | S-5 | 8' - 10' | 97.6 | 2.4 | 13.4 |
| B04-1 | S-7 | 15' - 17' | 96.6 | 3.4 | 25.4 |
| B04-2 | S-5 | 8' - 10' | 93.4 | 6.6 | 29.7 |
| B04-4 | S-5 | 8' - 10' | 95.4 | 4.6 | 22.9 |
| B04-5 | S-5 | 12' - 14' | 99.0 | 1.0 | 17.3 |

**Note:**
- All tests performed at 440° Celsius.
- Ash & Organics are calculated as a percentage of "oven dried" sample.
- Moisture content calculated as percentage of "as-received" sample.

# Particle Size Distribution Report




| | % + 3" | % GRAVEL | % SAND | % SILT | % CLAY | USCS | AASHTO | PL | LL |
|---|---|---|---|---|---|---|---|---|---|
| ○ | | 16.3 | 35.6 | 48.1 | | | | | |
| □ | | 39.6 | 36.8 | 23.6 | | | | | |
| | | | | | | | | | |

| SIEVE inches size | PERCENT FINER ○ | □ | |
|---|---|---|---|
| 1.5" | | 100.0 | |
| 1" | 100.0 | 79.0 | |
| .75" | 95.9 | 68.7 | |
| .5" | 92.9 | 67.1 | |
| .375" | 91.0 | 67.1 | |
| | GRAIN SIZE | | |
| $D_{60}$ | 0.131 | 4.55 | |
| $D_{30}$ | | 0.119 | |
| $D_{10}$ | | | |
| | COEFFICIENTS | | |
| $C_C$ | | | |
| $C_U$ | | | |

| SIEVE number size | PERCENT FINER ○ | □ |
|---|---|---|
| #4 | 83.7 | 60.4 |
| #10 | 80.1 | 53.4 |
| #20 | 76.7 | 48.5 |
| #40 | 73.4 | 44.0 |
| #60 | 68.9 | 38.9 |
| #100 | 62.4 | 33.0 |
| #200 | 48.1 | 23.6 |

SOIL DESCRIPTION

○

□

REMARKS:

○

□

○ Source: B04-3 Sample No.: S-12 Elev./Depth: 22' - 23'

□ Source: B04-5 Sample No.: S-6 Elev./Depth: 18' - 20'

**BASIC FOUNDATIONS, INC.**

Client: Foundation Design (#2746.0)

Project: Time Warner Cable

Project No.: 04-128

Figure 1