AECOM
40 British American Blvd.
Latham, New York 12110
www.aecom.com

August 22, 2022

Amanda Gonzales, P.E.
Remediation Project Manager
Stanley Black & Decker
1000 Stanley Drive
New Britain, CT

Re: Stanley Black & Decker Site Visit at the Former Sargent and Greenleaf Rochester Site
24 Seneca Avenue, Rochester, NY
AECOM Project No. 60689348

Dear Ms. Gonzalez,

AECOM was asked to provide structural engineering consulting services to Stanley Black & Decker (Stanley) for purposes of potential removal of contaminated soils and underground storage tanks (USTs) at the subject site. A site visit was conducted at the property located at 24 Seneca Avenue in Rochester, NY from 11:56 AM until 1:56 PM on July 26, 2022. William Gilbert, P.E., the author of this letter, performed a site visit. Also present were Danielle Miles of New York State Department of Environmental Conservation (NYSDEC) and Anton Heitger of EHS Support. The nature of this site visit was to observe, assess, and collect readily visible data at the areas of proposed UST and soil removal.

The following sections of the letter will outline some of the key areas of concern with excavating near the existing structures on the forementioned property. Included are figures indicating the site location and the approximate areas of review. Also included are photos documenting the existing condition and use of structures near the potential excavation areas. These photos show the typical nature of the building's condition and are not meant to show their condition in their entirety.

Also attached are the following appendices for supplemental information not included in this letter.

- ***Appendix A*** - O'Brien & Gere drawing dated November 2014 – Modified by Gnarus Advisors in 2022, Provided by John Simon of GNARUS Advisors, LLC via email on 7/19/2022

- ***Appendix B*** – Test Trench Logs dated 9/17/2008, Provided by Anton Heitger of EHS Support via SharePoint link on 7/19/2022

- ***Appendix C*** – Soil Boring Logs dated 9/18/2008 thru 9/24/2008, Provided by Anton Heitger of EHS Support via SharePoint link on 7/19/2022

- ***Appendix D*** – Monitoring Well Logs dated 8/15/2011 thru 8/17/2011, Provided by Anton Heitger of EHS Support via SharePoint link on 7/19/2022

- ***Appendix E*** – Soil Boring Logs dated 8/1/2011 thru 8/3/2011, Provided by Anton Heitger of EHS Support via SharePoint link on 8/4/2022

Project Site and Scope

The project site is in the city of Rochester, New York. The property is contained within a city block and is located at approximately 24 Seneca Avenue. The block is bound by Nester Street to the north, Bremen Street to the east, Norton Street to the south, and Seneca Avenue to the west, see ***Figure 1*** for approximate site location. The building is broken into several areas of different construction and differing dates. The building is currently occupied. In the portions of the building near the potential excavation areas, the occupancy is a mixture of storage warehousing and manufacturing.

No as-built drawings or information were available at the time of the site visit. As such, the scope of this review was limited to visible features accessible during the site visit. No destructive testing or probing was performed. No observations were made that required special access, equipment, or procedures. The interior review was limited and included only those areas accessible and unobstructed by stored items and finishing's. Only the ground floor was accessed, a review of upper floors and roofs were not conducted. No basement or subfloors were reviewed if at all present.

Proposed excavation and removal limits were not marked out at the site during this review. The full extent any excavation or removal will have on adjacent areas cannot be defined in the limited scope of this review. The unknown bottom depth of the USTs could cause additional unforeseen impacts.

Figure 1 *- Site Location*

Areas of Review

For the purposes of this letter, the review was broken into four areas, numbered in the order they were reviewed. The approximate limits of these areas are indicated on ***Figure 2*** to follow. The legend in the following figure includes the closest boring and test pit numbers. These areas were determined by the approximated excavation limits indicated on the O'Brien & Gere drawing dated November 2014 – Modified by Gnarus Advisors in 2022, see ***Appendix A*** for approximate excavation areas and depths.

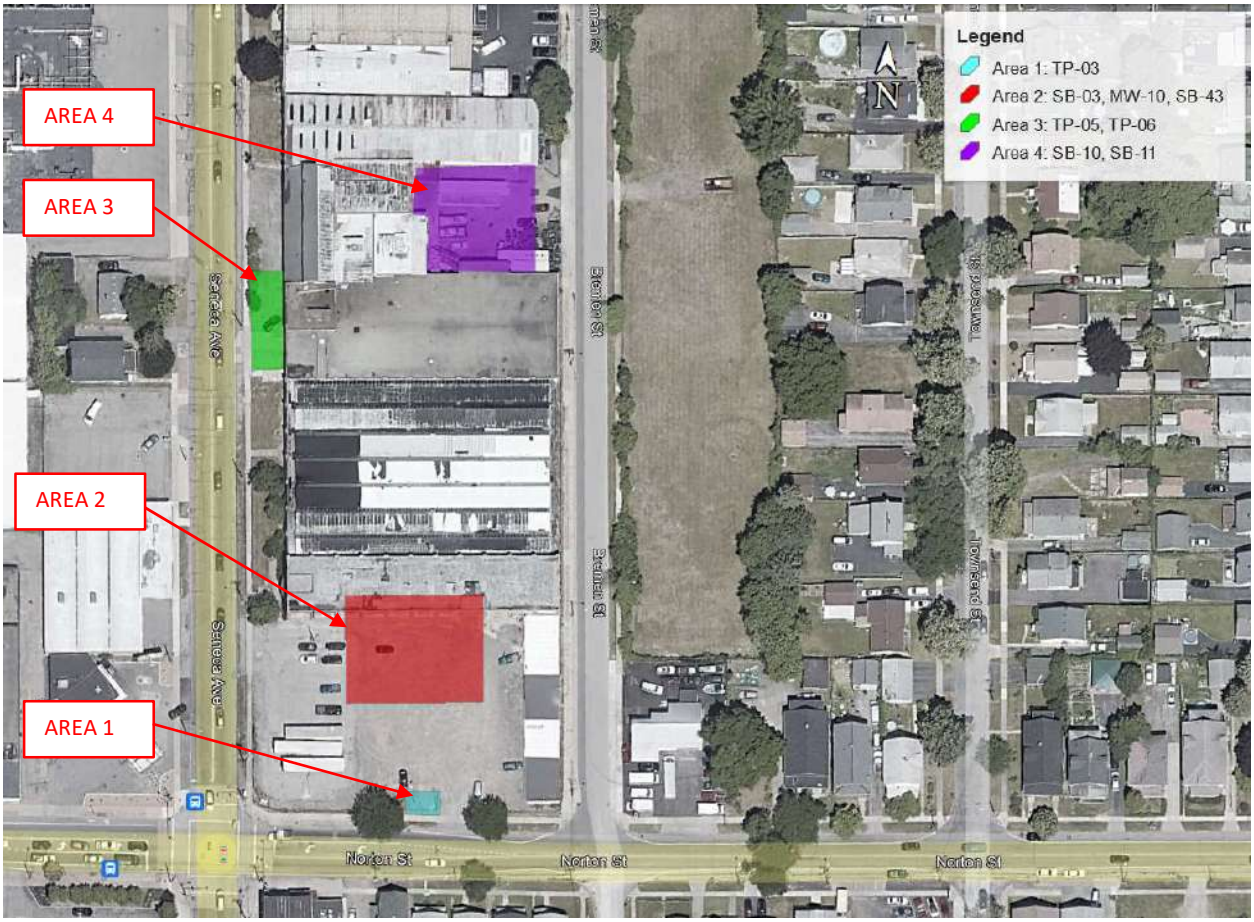


Figure 2 – *Areas of Review*

Area 1 Review

Area 1 included a potential area of excavation at the southernmost portion of the parking lot adjacent to Norton Street. The expected depth of an excavation in this area is 4.5 feet. Test pit TP-03 is in the vicinity of this excavation, see ***Appendix A*** for the test pit location. Refer to ***Appendix B*** for TP-03 test pit log. The anticipated excavation area is close to the roadway and sidewalk. An unknown pit was observed in the vicinity of this area. The pit is approximately 4 feet by 5 feet with an unknown depth. The pit is covered by a steel plate and the below grade walls appear to be concrete block, see ***Photo 1*** and ***Photo 2***. A utility pole was also observed in the vicinity.

Any excavation in this area will need to be protected if the depth exceeds 5 feet in accordance with Occupational Safety & Health Administration (OSHA) part 1926. Vertical excavations under 5 feet in depth would be possible in this area. Any excavation would still have to conform to any applicable OSHA rules. The unknown pit's use would need to

be determined before excavation and protected as needed. The sidewalk along Norton Street and any existing utilities would need to be protected from damage or undermining during excavation as well. Should a vertical excavation come within the slope of influence beneath adjacent sidewalks and roadways the excavation would require shielding even if a vertical cut is possible.

Photo 1 *– Unknown pit (taken 7/26/22)*

Photo 2 *– Unknown pit block walls (taken 7/26/22)*

Area 2 Review

Area 2 included a potential area of excavation in the southern parking lot adjacent to the main building. The expected excavation has two separate zones of different depths. The zone next to the building is up to 2 feet in depth and the zone in the middle of the parking lot is up to 11 feet in depth. Borings SB-43 and SB-03 along with monitoring well MW-10 are in the vicinity of this excavation, see ***Appendix A*** for the location of borings and well. Refer to ***Appendix C*** for SB-03 soil boring log, ***Appendix D*** for MW-10 monitoring well log, and ***Appendix E*** for SB-43 soil boring log. The anticipated excavation is directly next to the existing building. A drainage structure surrounded by a partially buried concrete slab abuts the building and the potential excavation in this area. The drainage structure has a 30-inch outer diameter grate and is approximately 4 feet deep.

The building's exterior in this area is severely deteriorated. The exterior brick wall is pitting along its length and height. Brick was also observed to be spalling along the base of the wall. Debris of broken brick was observed accumulating along the base of the wall. Portions of the brick wall appear to have been repaired during its life. Concrete sills below windows of both floors are heavily cracked and spalled. There are broken windows and cracked panes at multiple locations on both floors, see ***Photo 3***. The parapet at the roof appeared to be spalled as well, see ***Photo 4***.

Falling debris from the brick and glass would pose a safety concern during excavation. Measures would need to be taken to protect workers below from falling debris. Vibrations from excavation equipment would need to be

considered when digging in this area. The driving of piles and or sheeting for excavation protection should be avoided.

The nearby drainage structure and surrounding concrete slab would have to be either protected or replaced. The excavations in this area extend to approximately 11 feet below grade. Excavations 11 feet deep would have to be protected by shoring or sloped out at the appropriate slope determined by the soil type as outlined in OSHA part 1926. Shoring by means of driving piles would pose risks to the adjacent structure and could produce a safety hazard from falling debris from the building. Assuming the worst OHSA soil class of “type C”, excavations at the 11-foot depth would need to extend beyond the area for at least 16.5 feet. This would greatly increase the impacted area. A geotechnical engineer or a competent person as defined by OSHA would need to make the determination of soil type when using a sloped excavation method. Additional care would need to be considered if groundwater was encountered. Due to the proximity of the building, the building foundation would have to be discovered and any excavation would have to be out of the influence area of those foundations.

Photo 3 *– Deteriorated brick and broken windowpanes on southern wall, brick debris at base (taken 7/26/22)*

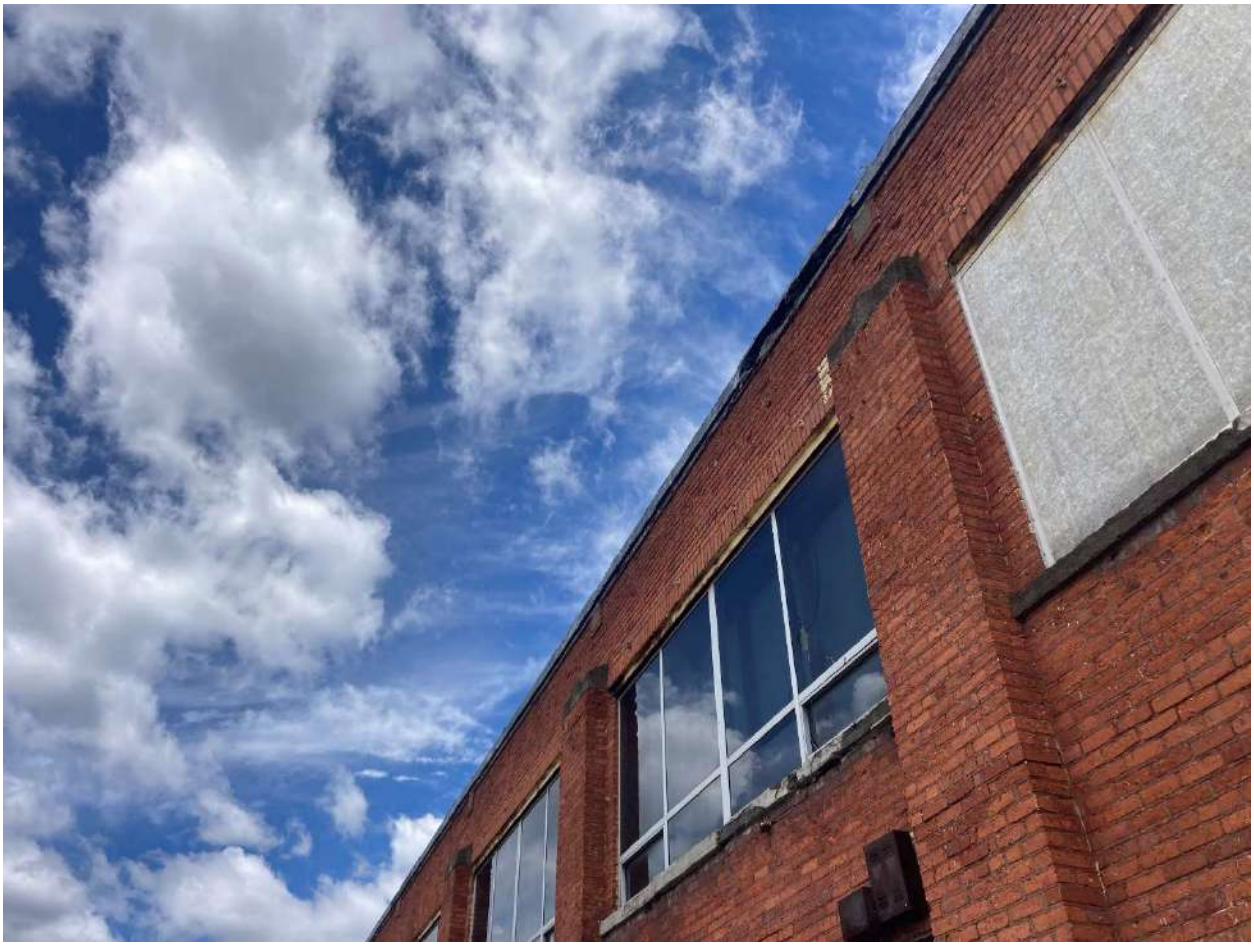


Photo 4 *– Spalled portion of parapet and cracked second story window (taken 7/26/22)*

Area 3 Review

Area 3 included the area where USTs are approximately located. This area is to the west of the building along Seneca Avenue. Test pits TP-05 and TP-06 are in the vicinity of this potential excavation, see ***Appendix A*** for the test pit locations. The test trench log for TP-05 (dated 9/17/2008) indicated the UST was found at approximately 2 feet below grade and the pit ended 5 feet below grade. No note was included in the description for TP-05 trench log indicating the bottom of the UST found. The test trench log for TP-06 (dated 9/17/2008) indicated the UST was found at approximately 2 feet below grade and to have a diameter of 7 feet. The test trench log for TP-06 ended at 6.5 feet below grade, there was no comment indicating the bottom of the UST found. See ***Appendix B*** for the TP-05 and TP-06 test trench logs. As the bottom of these tanks is unknown the full depth of excavation could not be determined. The anticipated excavation is next to the western side of the building along with a sidewalk and Seneca Avenue. A below grade loading bay is nearby with assumed concrete block retaining walls along its sides. There is an at-grade concrete slab in front of an overhead door to the south of the tanks and an above grade concrete landing to the northeast of the tanks. A damaged utility pole was also observed in the vicinity.

The condition of the block retaining walls surrounding the loading bay are poor. Both the northern and southern walls are cracked and fragmented into multiple pieces. Both walls are showing evidence of settlement and have begun to overturn. The walls meet grade towards their western ends. The northern wall was measured to be 3 feet above grade at the intersection of the building. The separation of the northern wall from the adjacent slab was measured to be 4 inches near the building, see ***Photo 5***.

The condition of the at-grade concrete slab in front of the overhead door is poor. The slab is fragmented and broken into several pieces, see ***Photo 6***. The above grade concrete landing is also in poor condition. ***Photo 7*** shows the landing. The landing appears to be comprised of a 1-foot-thick perimeter wall of unknown depth with a slab in the core. The wall is cracked and separated. The top corners of the wall are heavily spalled and chipped along the perimeter.

The building adjacent to the USTs is showing signs of deterioration. The exterior brick is pitting and spalling in several locations along its base. The concrete windowsills are cracked and spalled. A gutter downspout was observed to the north of the overhead door. The downspout discharges toward the approximate location of the USTs and could introduce water into an excavation area.

Any excavation in this area will need to be protected if the depth exceeds 5 feet in accordance with OSHA part 1926. The sidewalk along Seneca Avenue and any existing utilities would need to be protected during excavation as well. Should a vertical excavation come within the slope of influence beneath adjacent sidewalks and roadways the excavation would require shielding even if a vertical cut is possible. This area has a limited workspace which would further complicate any excavation. Field measurements taken showed the distance from edge of sidewalk to face of building to be approximately 28 feet. Test trench logs indicated an approximate diameter for one UST to be 7 feet, which further limits the workable width of a sloped excavation. The location of tank could even further reduce the workable width if the tank is not centered between the sidewalk and building. Depending on the depth of removal and soil type this could eliminate the option to slope the excavation. Considering the tank size, workable width, depth, location, soil type, adjacent sidewalk, and proximity of structures it may be assumed that a shielded excavation to remove the tanks is unavoidable. The driving of piles and or sheeting for excavation protection should be avoided as vibrations during driving might cause damage to the building façade. The poor condition of nearby slabs and walls might necessitate their replacement following excavation. Due to the proximity of the building, the building foundation would have to be discovered and any excavation would have to be out of the influence area of those foundations. No excavation that would undermine the existing foundations should be permitted unless the foundations are supported by shoring or underpinning that is designed by a professional engineer licensed in the State of New York.

Photo 5 *– Approximate location of USTs. Block wall is overturning, cracked, and fragmented (taken 7/26/22)*

Photo 6 *– At grade concrete slab (taken 7/26/22)*

Photo 7 *– Above grade conc. landing (taken 7/26/22)*

Area 4 Review

Area 4 included a potential area of excavation in the eastern parking lot by Bremen Street. The expected excavation has two separate zones of varying depth. The excavation zones in this area are surrounded on three sides by adjacent structures. These potential excavations range in depth from 4 feet to 9 feet below grade. Borings SB-10 and SB-11 are in the vicinity of these potential excavations, see ***Appendix A*** for the location of soil borings. Refer to ***Appendix C*** for SB-10 and SB-11 soil boring logs. The anticipated excavation is directly next to the existing building and a loading dock. The loading dock is of mixed construction with some portions being composed of concrete block and others of cast concrete. Field measurements taken indicate the dock to be approximately 40 inches above the pavement grade. The parking lot is currently being used for storage of equipment and materials. Close to one potential excavation zone is an overhead door with a 4 foot by 8-foot road plate by its base. It would need to be determined if this road plate is protecting some hidden structure or utility prior to excavation.

The loading dock in the area is in poor condition. The area by the steel steps is heavily spalled to the point where a portion of the step anchorage is no longer embedded in the concrete, see ***Photo 8***. The loading dock width provides a separation between the lot and the exterior building walls on the western side of the parking lot. The width of the loading dock varies from approximately 9 feet to 20 feet depending on the location. The exterior building walls are composed of concrete block on the sides that borders the west and south of the lot. The building north of the lot is composed of a concrete wall visible for 2’-9” above grade with metal sheeting above, see ***Photo 9***.

Any excavation in this area will need to be protected if the depth exceeds 5 feet in accordance with OSHA part 1926. The sidewalk along Bremen Street and any existing utilities would need to be protected during excavation as well. Should a vertical excavation come within the slope of influence beneath adjacent sidewalks and roadways the excavation would require shielding even if a vertical cut is possible. Due to the proximity of the building and loading docks, the building and loading dock foundations would have to be discovered and any excavation would have to be out of the influence area of those foundations. The proximity of adjacent structures and the excavation depths of up to 8 feet might eliminate the option for sloped exaction in this area, thereby necessitating a need for shielded excavation methods.

Photo 8 *– Spalled conc. Loading dock (taken 7/26/22)*

Photo 9 *– Wall on north side of lot (taken 7/26/22)*

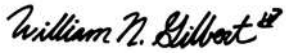
Summary

Should any excavation occur, the use of driven piles or driven sheeting should be avoided to prevent damage to the adjacent structures. Additional test pits would need to be dug to determine the foundation composition and depth of the building near each area of excavation. The absence of as-built information at the time of this letter and the mixed type of construction could cause great variability in the substructures supporting the building and supports the necessity for the collection of additional information. Any excavation would have to be outside of the influence area of the building's foundations. No undermining should be permitted unless the foundations are supported by shoring or underpinning that is designed by a professional engineer licensed in the State of New York. The proximity of sidewalks and roadways would need to be considered and coordinated with local authorities having jurisdiction. Road and sidewalks would need to be protected during excavation. Should a vertical excavation come within the slope of influence beneath adjacent sidewalks and roadways the excavation would require shielding even if a vertical cut is possible in those areas. Dig Safe would need to be consulted to locate any below ground utilities and any impacted utilities would need to be protected. The indicated depths of excavation and UST removal necessitate the need for protected excavation methods in accordance with OSHA rules. Variations in soil type and groundwater would further complicate any excavation. Guidance from a geotechnical professional engineer should be considered if groundwater is encountered during excavation. The deteriorated state of the building and structures might warrant repairs and or replacements post construction. A building survey would need to be conducted prior to any excavation. Relocation of stored items would need to be coordinated with the property owner. Without formal plans and specifications these recommendations are subject to change. An excavation contractor's means and methods could greatly vary the manner in which any excavation would occur.

In summary, the preceding sections indicate multiple factors of concern with the soil and UST removals. Shored excavation methods are likely to be unavoidable while removing the USTs and when near the building. Soil and UST removal may further damage the adjacent buildings and structures given their poor condition and proximity.

If you should have questions or require additional information regarding this site visit, please do not hesitate to contact the undersigned.

Sincerely,



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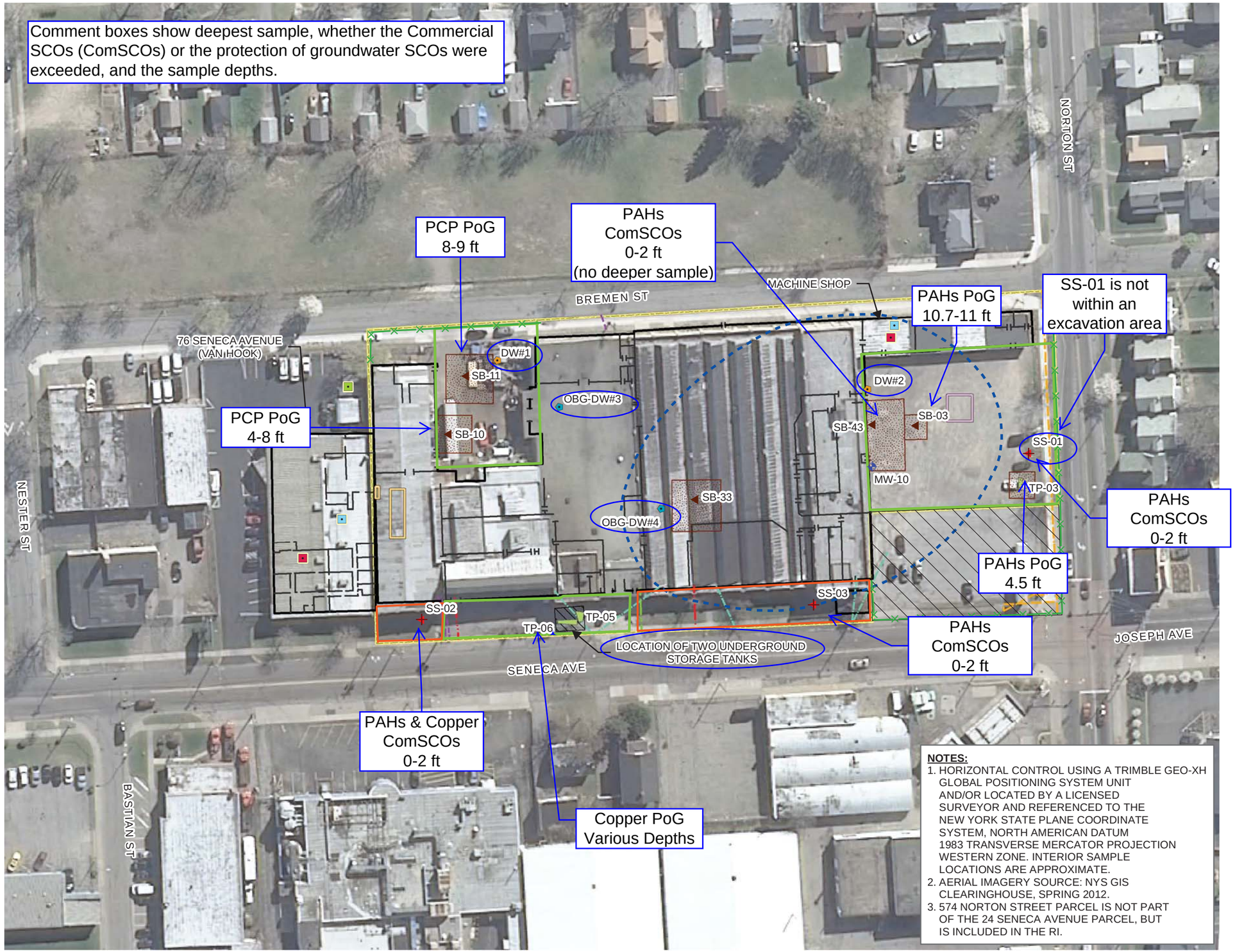
Appendix A

O’Brien & Gere drawing dated November 2014

Modified by Gnarus Advisors in 2022

PATH: I:\Rochester-C.11862\49907.Seneca-Supp-SvDocs\DWG\MXD\AA-SITE_PLAN.mxd

FIGURE 2



LEGEND

- REMOVE EXISTING SURFACE (8") & REPLACE WITH NEW ASPHALT CAP
- REPLACE OR REHABILITATE EXISTING CHAIN LINK FENCE
- REMOVE & REPLACE EXISTING TOPSOIL COVER (1')
- BEDROCK MONITORING WELL
- GROSSLY IMPACTED SOIL BORINGS (EXCAVATE)
- IMPACTED SURFACE SOIL SAMPLES (EXCAVATE)
- IMPACTED TEST PITS (EXCAVATE)
- APPROXIMATE LIMITS OF EXCAVATION
- APPROXIMATE *IN-SITU* TREATMENT AREA FOR VOC GROUNDWATER PLUME
- 574 NORTON STREET PARCEL

PROPOSED SAMPLE LOCATIONS

- PROPOSED AMBIENT AIR SAMPLE
- PROPOSED INDOOR AIR SAMPLE
- PROPOSED SUB-SLAB VAPOR SAMPLE

IMPACTED STORM DRAIN STRUCTURES

- TO BE REMOVED
- TO BE REHABILITATED OR REPLACED

UNDERGROUND FEATURES

- VAULT
- FORMER UST/ GAS STATION

UTILITIES

- ELECTRIC
- FIBER
- GAS
- OVERHEAD
- WATER AND SEWER

CITY OF ROCHESTER
ALTERNATIVES ANALYSIS REPORT
24 SENECA AVENUE
ROCHESTER, NEW YORK

SITE PLAN

DRAFT LOCATIONS OF PROPOSED REMEDIAL ACTIONS

0 40 80 160
Feet

NOVEMBER 2014
11862.49907

O'BRIEN & GERE

PLOT DATE: 11/10/14 8:11:53 AM DiNardAM

This document was developed in color. Reproduction in B/W may not represent the data as intended.

Appendix B

Test Trench Logs dated 9/17/2008

O'BRIEN & GERE

TEST TRENCH LOG

SITE: City of Rochester - 24 Seneca Avenue **JOB #:** 11862/41933

OBG FIELD SUPERVISOR: Anthony M. DiNardo, E.I.T. **TEST TRENCH:** TP-01

WEATHER: 65 degrees Fahrenheit, Clear, Sunny, Wind 0-5 mph **DATE:** 9/17/2008

DEPTH (FT)	PID (ppm)	DESCRIPTION
0	0.0	(0 - 0.5') GRAVEL and Crushed STONE. [GLEY 1 5/] [GP]
	0.0	(0.5' - 1.5') Dark Brown, Medium Silty SAND with some Gravel, Moist
1		[10 YR 2/2] [SM] Concrete along southeastern corner of test pit.
		(1.5' - 2.0') Black Sandy Cinders [10 YR 4/4] (FILL)
2	0.0	(2.0' - 6.0') Dark Brown, Medium Silty SAND with some Gravel, Moist
		[10 YR 3/4] [SM]
3		
4		
5		
6	0.0	(6.0' - 9.5') Brown, Medium Silty SAND [7.5 YR 4/6] [SM]
7		
8		
9		
		End of Test Pit 9.5' BGS
10		
11		

NOTES: No evidence of USTs, no observed evidence of ground water.
Sample collected at 2.0' BGS. Test pit backfilled with excavation spoils.

TEST TRENCH PLOT PLAN: See Figure for TP-01 location.

O'BRIEN & GERE

TEST TRENCH LOG

SITE: City of Rochester - 24 Seneca Avenue **JOB #:** 11862/41933

OBG FIELD SUPERVISOR: Anthony M. DiNardo, E.I.T. **TEST TRENCH:** TP-02

WEATHER: 65 degrees Fahrenheit, Clear, Sunny, Wind 0-5 mph **DATE:** 9/17/2008

DEPTH (FT)	PID (ppm)	DESCRIPTION
0	0.0	(0 - 0.5') GRAVEL and Crushed STONE. [GLEY 1 5/] [GP]
	0.0	(0.5' - 2.0') Brown, Medium SAND and GRAVEL, Moist
1		[10 YR 4/4] [SP]
2	0.0	(2.0' - 4.0') Brown, Medium SAND and GRAVEL, Moist
		FILL consisting of broken concrete chunks mixed with Brown, Medium SAND and GRAVEL
3		between 2.5' - 4.0' BGS. Two parallel steel pipes approximately 2" diameter
		located approximately 3.0' BGS running parallel to Norton Street,. [10 YR 5/1] [SP]
4	0.0	(4.0' - 5.0') Brown, Medium SAND and GRAVEL, Moist
		[7.5 YR 4/4] [SP]
5	0.0	(5.0' - 6.5') Reddish-Brown CLAY, Moist
		[7.5 YR 4/4] [CL]
6		
	0.0	(6.5' - 7.5') Reddish-Brown CLAY, Moist
7		[10 YR 4/6] [CL]
		End of Test Pit 7.5' BGS
8		
9		
10		
11		

NOTES: No evidence of USTs, no observed evidence of ground water.
Test Pit moved to north a few inches once pipes were encountered. Pipes may be associated with former bedro
in this area. Sample collected at 4.0' BGS. Test pit backfilled with excavation spoils.

TEST TRENCH PLOT PLAN: See Figure for TP-02 location.

O'BRIEN & GERE

TEST TRENCH LOG

SITE: City of Rochester - 24 Seneca Avenue **JOB #:** 11862/41933

OBG FIELD SUPERVISOR: Anthony M. DiNardo, E.I.T. **TEST TRENCH:** TP-03

WEATHER: 65 degrees Fahrenheit, Clear, Sunny, Wind 5-10 mph **DATE:** 9/17/2008

DEPTH (FT)	PID (ppm)	DESCRIPTION
0	0.0	(0 - 6") GRASS and ROCK/GRAVEL. [GLEY 1 5/]
1	0.0	(0.5' - 2.5') Brown, SAND and GRAVEL, Moist [7 YR 3/4] [SP]
2		
3	0.0	(2.5' - 4.5') Red BRICK fill encountered @ 2.5' BGS with brown silty SAND and GRAVEL, Moist [5 YR 4/3] [SP]
4		
5	0.0	(4.5' - 8.0') Brown, Silty SAND and GRAVEL, Moist [10 YR 5/6] [SP]
6		
7		
8	0.0	(8') Reddish-Brown CLAY, Moist but brittle [7.5 YR 3/3] [CL] End of Test Pit 8' BGS.
9		
10		
11		
NOTES:		No evidence of USTs, no observed evidence of ground water. Sample collected at 4.5' BGS (also MS/MSD). Test pit backfilled with excavation spoils.
TEST TRENCH PLOT PLAN:		See Figure for TP-03 location.

O'BRIEN & GERE

TEST TRENCH LOG

SITE: City of Rochester - 24 Seneca Avenue **JOB #:** 11862/41933

OBG FIELD SUPERVISOR: Anthony M. DiNardo, E.I.T. **TEST TRENCH:** TP-04

WEATHER: 70 degrees Fahrenheit, Clear, Sunny, Wind 5-10 mph **DATE:** 9/17/2008

DEPTH (FT)	PID (ppm)	DESCRIPTION
0	0.0	(0 - 0.5') GRASS covered, dark browne [7.5 YR 4/2] TOPSOIL
	0.0	(0.5' - 1') Stiff Brown, Medium SAND, Moist, trace TOPSOIL. [7.5 YR 4/3] [SP]
1		(1' - 3') Brown, Medium SAND, Moist, some ROCKS/COBBLES [7.5 YR 4/3] [SP]
2		
3	0.0	(3' - 5') Light Brown, Fine-Medium SAND and GRAVEL, some ROCKS/COBBLES, Moist [10 YR 6/3] [SP]
4		
5	0.0	(5' - 6') Reddish-Brown CLAY SILT, brittle [10 YR 5/6] [ML]
6		
	0.0	End of Test Pit 6' BGS
7		
8		
9		
10		
11		
NOTES:		No evidence of USTs, no observed evidence of ground water. Sample collected at 5' BGS. Test pit backfilled with excavation spoils.
TEST TRENCH PLOT PLAN:		See figure for TP-04 location.

O'BRIEN & GERE

TEST TRENCH LOG

SITE: City of Rochester - 24 Seneca Avenue **JOB #:** 11862/41933

OBG FIELD SUPERVISOR: Anthony M. DiNardo, E.I.T. **TEST TRENCH:** TP-05

WEATHER: 70 degrees Fahrenheit, Clear, Sunny, Wind 5-10 mph **DATE:** 9/17/2008

DEPTH (FT)	PID (ppm)	DESCRIPTION
0	0.0	(0 - 0.3') ASPHALT
	0.0	(0.3'-0.9') Grey GRAVEL[GLEY 1 5/] [SP]
1	0.0	(9" - 2') Light Brown, Fine-Medium SAND, Moist
		[10 YR 5/3] [SP] (Tank encountered at 2' BGS) TP moved to side of tank
2	0.0	(2' - 5') some SOIL
3		
4		
5	0.0	(5' BGS) Water coming from rust hole observed in side of tank. No sheen or odor noted
6		
	0.0	End of Test Pit 5' BGS
7		
8		
9		
10		
11		

NOTES:	UST encountered, no evidence of ground water No sample collected, will geoprobe near hole observed in tank. Test pit backfilled with excavation spoils. Stained soils were not observed in TP-05.
TEST TRENCH PLOT PLAN:	See figure for TP-05 location.

O'BRIEN & GERE

TEST TRENCH LOG

SITE: City of Rochester - 24 Seneca Avenue **JOB #:** 11862/41933

OBG FIELD SUPERVISOR: Anthony M. DiNardo, E.I.T. **TEST TRENCH:** TP-06

WEATHER: 70 degrees Fahrenheit, Clear, Sunny, Wind 5-10 mph **DATE:** 9/17/2008

DEPTH (FT)	HNU (ppm)	DESCRIPTION
0	0.0	(0 - 0.3') ASPHALT
	0.0	(0.3' - 0.9') Grey GRAVEL [7.5 yr 6/1] [GP]
1	0.0	(9" - 3') Medium Brown, Medium SAND and GRAVEL [7.5 YR 4/3] [SP] (Tank found at 2' BGS) Approximately 7' diameter
2		
3	0.0	(3' - 5') Reddish brown, Medium silty SAND, brittle [7.5 YR 4/6] [SM]
4		
5	0.0	(5' - 6.5') Brown brittle CLAY, some SAND, some GRAVEL [10 YR 5/4] [CL]
6		
	0.0	End of Test Pit 6.5' BGS. - Potential bedrock or tank pad.
7		
8		
9		
10		
11		
NOTES:		UST encountered, no evidence of ground water. Sample collected at 6.5' BGS. Test pit backfilled with excavation spoils. Stained soils were not observed in TP-06.
TEST TRENCH PLOT PLAN:		See figure for TP-06 location

TEST TRENCH LOG

SITE: City of Rochester - 24 Seneca Avenue **JOB #:** 11862/41933

OBG FIELD SUPERVISOR: Anthony M. DiNardo, E.I.T. **TEST TRENCH:** TP-07

WEATHER: 70 degrees Fahrenheit, Clear, Sunny, Wind 5-10 mph **DATE:** 9/17/2008

DEPTH (FT)	PID (ppm)	DESCRIPTION
0	0.0	(0 - 0.2') ASPHALT
	0.0	(0.2' BGS) Concrete Pad encountered, test pit ended
1		
2	0.0	End of Test Pit 2' BGS
3		
4		
5		
6		
7		
8		
9		
10		
11		

NOTES:	No evidence of USTs, no observed evidence of ground water No sample collected. Test pit backfilled with excavation spoils.
TEST TRENCH PLOT PLAN:	See figure for TP-07 location

Appendix C

Soil Boring Logs dated 9/18/2008 thru 9/24/2008

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-01
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	UV
0-0.5'				80%		Grey GRAVEL [7.5 YR 5/1]			0.0	
0.5' - 3.5'						Ash, Coal Pieces, Fill, Black Cinders, some Brown SAND and GRAVEL [GLEY 1 2.5/ and 7.5 YR 4/3]		2'-4'/0.0	0.0	
3.5'-4'						Medium Brown Silty SAND, Moist [7.5 YR 2.5/3] [SP]			0.0	
4'-6'				100%		Medium Brown SAND, Moist [7.5 YR 4/3] [SP]		4'-6'/0.0	0.0	
6'-7.4'						Brown CLAY, Moist [7.5 YR 4/3] [CL]			0.0	
7.4'-8'						Brown Medium SAND Moist, Trace GRAVEL [7.5 YR 4/3] [SP]			0.0	
8'-9.6'				100%		Brown CLAY, Moist, Trace Gravel [7.5 YR 4/3] [CL]			0.0	
9.6'-12.2'						Brown Silty SAND, Moist, Trace Gravel [7.5 yr 4/3] [SP]		10'-12'/0.0	0.0	
12.2'-13'						Brown Silty SAND, Brittle Trace Gravel [7.5 yr 4/3] [SM]		12'-13'/0.0	0.0	
						Sample collected at 2'-4' BGS EOB 13' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Location: SB-02
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.5'				90%		GRAVEL [7.5 YR 5/1]			0.0	
0.5'-1.8'						Brown SAND and GRAVEL, Moist, Trace Black Gravel Size Cinders [7.5 YR 3/3] [SP]		1'-3'/0.0	0.0	
1.8'-3.1'						Reddish Medium Brown SAND, Moist [7.5 YR 4/4] [SP]			0.0	
3.1'-4'						Medium Brown Silty SAND, Moist [7.5 YR 3/2] [SM]			0.0	
4'-5.8'				100%		Brown Silty SAND Moist [7.5 YR 3/2] [SM]		4'-6'/0.0	0.0	
5.8'-8'						Brown Silty SAND Moist [7.5 YR 4/2] [SM]			0.0	
8'-10'				50%		Brown SILT, Brittle, Trace Sand [7.5 YR 4/3] [ML]		9'-10'/15.4	0.0	
						Sample collected at 4'-6' BGS EOB 10' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-03
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = **Riser**
\ Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.5'				90%		GRAVEL [GLEY 1 5/]			0.0	
.05'-2.4'						Brown Medium SAND/GRAVEL Moist, Some Cinders [7.5 YR 4/4] [SP]			0.0	
2.4' - 4'						Medium Brown SILT, Trace Sand, Chunks of Rock, Some Cinders/Gravel [7.5 YR 4/3] [ML]		2'-4'/4.0	4.0	
4'-4.8'				100%		Medium Brown Silty SAND, Moist, Some Gravel [7.5 YR 4/3] [SM]			0.0	
4.8'-6.5'						Grey/Brown SILT, Moist, Some Gravel [7.5 YR 5/1] [ML]			0.0	
6.5'-8'						Brown Silty SAND, Moist, Some Rock Pieces [7.5 YR 4/3] [SP]		6'-8'/3.9	3.9	
8'-10.7'				75%		Brown, Brittle SILT, Trace Sand, Trace Gravel [7.5 YR 4/4] [ML]		8'-10'/2.0	2.0	
10.7'-11'						Brown, Brittle SILT, Trace Sand, Trace Gravel [7.5 YR 4/4] [ML]		10.7'-11'/5.0	5.0	
						Sample collected at 8'-11' BGS EOB 11' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-04
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.5'				90%		GRAVEL [GLEY 1 5/]			0.0	
0.5'-4'						Brown SAND and GRAVEL, Trace Fill at 2.5-4' [10 YR 4/3] [SP]		2'-4'/0.0	0.0	
4' - 6.5'				100%		Medium Brown SAND and GRAVEL, Trace Gravel from Surface, Moist [10 YR 4/3] [SP]			0.0	
6.5'-8'						Medium Brown Silty SAND, Moist [10 YR 4/3] [SM]		6'-8'/2.5	2.5	
8'-10.5'				50%		Brown SILT, Brittle, Trace Medium Sand, Trace Gravel [10 YR 4/2] [MH]		8'-10'/1.8	1.8	
						Sample collected at 6'-8' BGS EOB 10.5' BGS, equipment refusal Bedrock fragments				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-05
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	UV
0-0.5'				60%		Gray/Black GRAVEL [GLEY 1 5/ and GLEY 1 2.5/]			0.0	
0.5'-2.3'						Medium Brown SAND, Trace Gravel [7.5 YR 4/2] [SP]			0.0	
2.3'-3.6'						Brown Silty SAND, Trace Silt [3.5 YR 4/3] [SM]		1.5'-3.5'/29.6	29.6	
3.6'-4'						Brown SILT, Trace Sand [7.5YR 4/3] [MH]			0.0	
4'-6.2'				90%		Trace Medium Brown Sand, Brown/Red CLAY, Trace of Brownish Black Sand [5 YR 5/3] [CL]		4'-6'/4.4	4.4	
6.2'-8'						Brittle Brown Sandy SILT, Trace Medium Brown Sand/Gravel [7.5 YR 4/2] [MH]			0.0	
8'-10.1'				60%		Medium Brown Sandy SILT, Trace Sand, Trace Rock Fragments [7.5 YR 4/2] [MH]		8'-10'/2.2	2.2	
						Sample collected at 1.5'-3.5' BGS EOB 10.1' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-06
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \
Riser
Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.3'				60%		ASPHALT			0.0	
0.3'-1.3'						GRAVEL, Black Cindery SAND [GLEY 1 2.5/]			0.0	
1.3'-4'						Brown/DarkBrown Mediuim Silty SAND, Moist/Damp, turn to Sandy SILT @ 3.8' [7.5 yr 3/2] [SM]		2'-4'/4.4	4.4	
4'-6.7'				90%		Gray/Brown SILT, Trace Sand, Moist. [10 YR 4/2] [ML]		4.5'-7'/1.6	1.6	
6.7'-8.0'						Gray/Brown Brittle SILT, Moist [7.5 YR 5/2] [ML]			0.0	
8.0'-8.7'				60%		Brittle Brown SILT, Trace Brown Sand, Some Brown Clay, Moist, Trace Black Asphalt [7.5 YR 4/5] [ML]		8'-10'/0.0	0.0	
8.7'-10.4'						Brown Brittle Sandy SILT, Rock Fragments [7.5 YR 4/3] [ML]			0.0	
						Sample collected at 2'-4' BGS EOB 10.4' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-07
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = | Grout
Riser | Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-4'				60%		Medium Brown, Silty SAND, Moist, Trace Gravel [10YR 5/3] [SM]		No headspace reading, sleeve fell to ground	0.0	
4'-8'						Brown Fine-Medium SAND, Moist to Damp, Trace Black Cinders [10 YR 5/3] [SP]		6'-8'/3.0	3.0	
8'-9.9'				50%		Brown, Moist, Sandy SILT, Brittle, Trace Gravel some Rock fragment at 9.7' [10 YR 4/3] [ML]		8'-9.5'/0.0	0.0	
						Sample collected at 6'-8' BGS EOB 9.9' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-08
Start Date: 2008-09-18
End Date: 2008-09-18

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.3'						ASPHALT			0.0	
0.3'-3.5'				90%		Reddish Brown SAND/GRAVEL/CINDERS/Trace Cobbles, Trace Silt [7.5 YR 4/4] [SP]		2'-4'/5.1	5.1	
3.5'-4'						Brown Medium Moist SAND, Trace GRAVEL [7.5 YR 3/2] [SP]			0.0	
4'-8'				100%		Brown Medium SAND and GRAVEL, Trace Black Cinders/Gravel Turning Damp at 7.6' [7.5 YR 4/4] [SP]		6'-8'/0.0	0.0	
8'-12'				75%		Brown, Silty SAND, DAMP Turning to Brittle SILT at 11.4' BGS. ROCK Fragments at 12' BGS. [SM]		8'-10'/12.8	12.8	
						Pesticide sample collected at 2'-4' BGS Other samples collected at 8'-10' BGS EOB 12' BGS, equipment refusal. ROCK Fragments				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-09
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = **Grout**
Riser **Sand Pack**
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.3'						ASPHALT			0.0	
0.3'-0.5'				80%		Gray/Black GRAVEL, ASPHALT CINDERS [GLEY 1 5/ and GLEY 1 2.5/]			0.0	
0.5'-2.2'						Brown Medium SAND, Trace Silt [7.5 YR 3/4] [SM]			0.0	
2.2'-4'						Brown Sandy SILT, Some Red/Brown CLAY [7.5 YR 4/4] [SM]		2'-4'/3.5	3.5	
4'-8'				100%		Brown Sandy SILT, Trace Gravel/Rock at 7.4-7.6', Trace Black Gravel Fill at 4-4.2' [7.5 YR 4/3] [SM]		4'-6'/0.0	0.0	
8'-9.9'				50%		Brown Brittle Sandy SILT, Trace Gravel at 8-8.1' [10 YR 5/3] [SM]		8'-9.5'/1.3	1.3	
						Sample collected at 2'-4' BGS EOB 9.9' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-10
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	UV
0-0.3'				60%		ASPHALT			0.0	
0.3'-0.9'						GRAVEL, Coarse Brown SAND and GRAVEL, Moist [10 YR 4/3] [SP]		1'-3'/12.5	12.5	
0.9'-2.5'						Gray Brown CLAY, Trace Coarse Sand, Moist [10 YR 4/2] [CL]			4.8	
2.5'-4'						Gray Brown CLAY, Brown Moist Clayey Sand [10 YR 4/2] [CL]			5.0	
4'-5.5'				75%		Gray Brown CLAY, Brown Moist Clayey SAND, Petroleum Odor [10 YR 4/2] [CL]			12.1	
5.5'-7.2'						Brown , Medium SAND, Moist Sandy, CLAY, Petroleum Odor [10 YR 4/3] [SC]		4'-8'/22.3	70.3	
7.2'-8'						Brown Silty SAND, Red/Brown Mottling Petroleum Odor, Turning wet @ 7.6' [5 YR 4/3] [SM]			11.4	
8'-9.8'				50%		Wet to Damp Brown Medium Coarse SAND, Turing to Silty SAND [7.5 YR 4/3] [SP]		8'-9.5' HS=23.1	1.1 6.8 1.8 2.9	
						Sample collected at 4'-8' BGS Blind Duplicate collected at 4'-8' BGS EOB 9.8' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-11
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = | Riser | Grout | Sand Pack | Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.3'				90%		ASPHALT			0.0	Bkg-1-3 ppm
0.3'-1.9'						Medium Reddish/Brown SAND, GRAVEL, some Gravel [10 YR 4/3] [SP]			0.0	
1.9'-3'						Red/Brown Silty Medium SAND [10 YR 4/3] [SM]		2'-4'/9.4	9.4	
3.4'-4'						Grey/Brown/Red CLAY, Trace Medium Sand [10 YR 4/3]			0.0	
4'-5.1'				100%		Grey/Brown/Red CLAY, Trace Medium Sand [7.5 YR 4/3] [CL]		6'-8'/6.7	1.2	
5.1'-6.8'						Medium SAND, Brown, Moist [7.5 YR 4/3] [SP]			2.8	
6.8'-8'						Medium Brown Silty SAND, Moist. Trace Rocks, Turning Wet at 7.7' [7.5 YR 4/3] [SM]			3.9	
8'-9'				30%		Medium Brown, Moist and Damp SAND, Brittle Trace Gravel, Trace Possible Rock Fragments, Moist. [7.5 YR 4/3] [SP]		8'-9'/21.2	8.0 16.4	
						Sample collected at 8'-9' BGS EOB 9' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-12
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.3'				90%		ASPHALT			0.5	
0.3'-1.4'						GRAVEL, Brown SAND, Some Cobbles, Moist [10 YR 4/6] [SP]		1'-4'/0.0	0.5	
1.4'-3.1'						Moist (2.3' Black-Dark Brown Sandy SILT) [10 YR 5/2] [SM]			1.0	
3.1'-4'						Trace Rocks, Medium Brown, Moist, Sandy CLAY, Some Gravel [10 YR 5/2] [CL]			0.5	
4'-5.2'				80%		Moist, Gray/Brown, Moist, Sandy CLAY, Trace Gravel [10 YR 5/2] [CL]			1.4	
5.2'-8'						Clayey SILT, Mottled Gray/Brown Moist [10 YR 5/2] [ML]		5'-7'/0.0	1.1 1.5	
8'-9'7"				50%		Moist, Clayey SILT, Mottled Gray/Brown Turns Brittle at 9'5" [10 YR 4/2] [ML]		8'-9.5'/0.0	0.0	
						Sample collected at 5'-7' BGS EOB 9.7' BGS, equipment refusal Background readings on PID of 0-3 ppm				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-13
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = | Riser | Grout | Sand Pack | Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	UV
0-0.5'				80%		Concrete Floor Slab			0.0	
0.5'-2.2'						Gray GRAVEL, Brown/Red SAND [10 YR 4/2] [SP]			0.0	
2.2'-4'						Red/Black Cindery Sandy FILL material, Turnes Red/Brown Sandy at 3.6' (Rocks at 3.7'-4') [5 YR 4/3] [SP]		2'-4'/0.0	0.0	
4'-6'				100%		Dark Brown, Sandy CLAY, Stiff, Turns to Stiff Brown CLAY, Moist [10 YR 3/3] [SC]		4'-6.5'/0.0	0.0	
6'-8'						Dark Brown, Sandy CLAY, Stiff, Turns to Stiff Brown CLAY, Moist, Turns Clayey, Grey/Brown Mottled at 7.6' BGS [10 YR 5/2] [CL]			0.0	
8'-12'				100%		GRAVEL (Possible Cave-in), Damp Sandy SILT to Silty SAND (8'-9.2'), Turns Wet at 9.2', Brown Silty SAND (9.2'), Brittle at 11.8', Trace Gravel [10 YR 5/3] [SM]		8'-10' HS=0.0	0.0	
12'-13.8'						Brown Brittle SILT, Trace Sand, Some Cindery Rock, Trace Gravel from Surface [10 YR 5/3] [SP]		12'-13.5' HS=0.0	0.0	
						Sample collected at 8'-10' BGS EOB 13.8' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Location: SB-14
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \
Riser
Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.5'				80%		CONCRETE			0.0	
0.5'-0.9'						GRAVEL, Brown SAND [10 YR 4/2] [SP]			0.0	
0.9'-1'						Black, Very Fine CINDERS/SAND(Foundry SAND), Trace Brown Sand [7.5 YR 4/2] [SP]		1'-3'/0.0	0.0	
1'-1.5'						Brown, Moist, Stiff, Sandy CLAY [7.5 YR 4/2 and GLEY 1 2.5/] [CL]			0.0	
1.5'-2.2'						Gray Ashy FILL Material, Trace Gravel [GLEY 1 5/] [SP]			0.0	
2.2'-4'						Dark Brown Silty SAND, Moist [7.5 YR 3/2] [SM]			0.0	
4'-5.7'				80%		Brown Moist but Brittle Silty SAND, Trace Gravel, Some Rocks [7.5 YR 4/3] [SM]			0.0	
5.7'-8'						Fine Brown SAND, Some Gravel and Cobbles, Turns Dam at 7.7' Petro Odor [7.5 YR 4/3] [SM]		6'-8'/80.3	15.4 23.9 16.2	
8'-8.6'						Brown, Brittle SAND, Trace Gravel, Petro Odor [7.5 YR 4/3] [SP]			45.7	
8.6'-9.5'						Fine Silty SAND, Moist, Brown - Strongest Petro Odor [7.5 YR 4/3] [SM]		8'-10'/364	74.8	
9.5'-12'						Stiff Brown SILT, Trace Sand, Moist, Petro Odor [7.5 YR 4/3] [ML]			113 37	
12'-13.8'				80%		Damp SAND/SILT, Strong Petro Odor [7.5 YR 4/3] [ML]			70.6	12.5
13.8'-14.2'						SAND/SILT, Brown, Moist, Petro Odor [7.5 YR 4/3] [ML]		12.5'-14'/199	83.9	12.9
14.2'-14.9'						Weathered BEDROCK Fragments, Light Gray [7.5 YR 4/3 and light gray] [ML]			54.2	13.8
						Sample collected at 8'-10' BGS EOB 14.9' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-15
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	UV
0-0.5'				50%		CONCRETE		2'-4'/10	0.0	
0.5'-3.7'						Black Cinders-FILL, Gray Ash Material, Some Brown Very Fine Sand [10 YR 5/3] [GP]			0.0	
3.7'-4'						White ASH, COAL Pieces-Granular Fibrous [10 YR 5/3] [GP]			0.0	
4'-8'				50%		COAL Pieces, Gray/White ASH, SLAG, White Grandular Chunks, Turns to Brown Fine SAND at 11.6' BGS, Moist to Damp [10 YR 4/3] [SP]		4'-6'/1.6	0.0	
8'-12'						Damp to Wet, Brown, Possible Fall-in, Very Fine Brown SAND, Trace Rock/Gravel [10 YR 5/3] [SP]		10'-12'/48.1	0.0 10.8' - 14.7 0.0	
12'-13.6'				50%		Very Wet Brown Fine SAND to Brown Moist SILT, Weathered BEDROCK Fragments at 13.5' [10 YR 5/3] [SM]		12'-13.5'/1.6	0.0 0.0	
						Sample collected at 10'-12' BGS EOB 13.6' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-16
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \
Riser
Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	Field Testing UV
0-0.5'				85%		CONCRETE			0.0	
0.5'-1.3'						Corse Brown SAND and GRAVEL, Some Rock/Gravel Chunks [735 YR 4/2] [GP]			0.0	
1.3'-1.6'						Black CINDERS, Fill. Some Black Fine Sand (Foundry Sand) [GLEY 1 2.5/] [GP]			0.0	
1.6'-2.8'						Brown Sandy Silty CLAY [7.5 YR 4/4] [CL]		1.5'-4'/0.0	0.0	
2.8'-4.0'						Brown, Silty SAND, Trace Fill, Trace Gravel [7.5 YR 4/4] [SP]			0.0	
4.0'-6.8'				30%		Red/Brown Medium SAND, Some Rocks, Some Gravel [7.5 YR 4/4] [SP]			0.0	
6.8'-8'						Very Fine Brown/Red SAND, Medium Coarse SAND/GRAVEL 6.2'-6.6'-Red ROCKS, Weathered [7.5 YR 4/4] [SP]		6'-8'/0.0	0.0	
8'-12'				60%		Brown-Black 8.6-8.7 SAND, Larger 1/8-1/4 GRAVEL [7.5 YR 4/3] [GP]		9.5'-11.5'/0.0	0.0	
12'-14.6'				60%		Brown Silty SAND, Wet SAND - ROCKS - Brown Moist SILT, Some Gray Silt, Petro Odor, Possible staining [7.5 YR 4/3] [SP and ML]		13'-14.6'/0.0	30.3 24.9 0.0 15.7	
						Sample collected at 13'-14.6' BGS EOB 14.6' BGS, equipment refusal				

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862/41933

Sampler: Geoprobe Macrocore 2"
Hammer: N/A
Fall: N/A

Page 1 of 1
Location: SB-17
Start Date: 2008-09-19
End Date: 2008-09-19

Boring Company: TREC
Foreman:
OBG Geologist: AMD

Screen = \ Grout
Riser Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	UV
0-0.5'				60%		CONCRETE			0.0	
0.5'-3.4'						Brown SAND, Red/Black CINDERS, Some Rocks, Gravel Red/Brown Silty SAND, Some GRAVEL [7.5 YR 4/3] [GP]			1.7 3.9	
3.4'-4'						Clayey SILT [5 YR 4/3] [ML]		0-4'/4.2	4.2	
4'-8'				75%		Some Red/Brown SAND, Some Rocks, Trace Cinders, Strong Petro Odor [5 YR 4/3]. 6.2'-8' - Brown Silty CLAY Turns to Brown Sandy SILT [7.5 YR 4/4] [SP and ML]		4'-8'/212	7.8 74.6 103 237	
8'-10.3'				80%		Reddish/Brown Silty CLAY, damp to wet at 9.8'-10.3' [5 YR 4/3] [CL]		8'-12'/196	72.7 49.6	
10.3'-12'						Brown, Moist Sandy SILT. Strong Petro Odor [7.5 YR 4/3] [ML]			155.0 6.2	
12'-12.8'				80%		Brown, Damp to Moist Silty SAND. Strong Petro Odor [7.5 YR 4/3] [SM]		12'-14.6'/228	47.2, 65.5	
12.8'-13.2'						Black/Red FILL, Some Gravel [GP]			32.2	
13.2'-14.6'				50%		Brown Clayey SILT, Weathered BEDROCK at End of Boring [7.5 YR 4/3] [ML]			12.8, 170	
						Sample collected at 4'-8' BGS MS/MSD collected at 4'-8' BGS EOB 14.6' BGS, equipment refusal				

O'BRIEN & GERE	TEST BORING LOG	REPORT OF BORING
Client: City of Rochester **Proj. Loc:** 24 Seneca Avenue **File No.:** 11862/41933	**Sampler:** **Geoprobe Macrocore 2"** **Hammer: N/A** **Fall: N/A**	**Page 1 of 1** **Location:** SB-18 **Start Date:** 2008-09-19 **End Date:** 2008-09-19
Boring Company: TREC **Foreman:** **OBG Geologist:** AMD		**Screen** = | \ Grout **Riser** Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Depth/ Headspace Reading (ppm)	Field Testing PID (ppm)	UV
0-0.5'				75%		CONCRETE			0.0	
0.5'-12'						Black Gravelly CINDERS [GLEY 1 2.5/] [GP]		0'-3'/0.0	0.0	
1'-4'						White ROCK - 1" diameter, Brown Fine SAND, Moist, Some Gravel 2.5'-3.5' Black CINDERS, Red/Brown SAND turns to Red/Brown/Grey Brittle Silty CLAY [7.5 YR 4/3 and 2.5 YR 4/1] [SP and CL]			0.0	
4'-4.6'				100%		Red/Brown/Grey Brittle Silty CLAY [2.5 YR 4/1] [CL]		4'-6'/0.0	0.0	
4.6'-8'				85%		Reddish/Brown Clayey SILT turning to Brown Silty SAND, Moist Turns to Fine Brown SAND at 7.3'. Brown Sandy SILT at 7.9'-8' [2.5 YR 3/4 and 5 YR 4/3] [SP and MH]			0.0	
8'-14.8'				85%		Strong Odor, Black CINDERS from fall-in? 8'-9.2' Brown/Red Sandy SILT to Silty SAND Brown Fine to Medium SAND with some Silty SAND turns to Sandy SILT at 11.8' 12.3' Red/Back CINDERS (From fall-in?), Wet throught Fine-Medium Brown Silty SAND, trace Gravel, Wet [5 YR 4/3] [SP and MH]		9'-12'/No HS	8.1' - 0.0 8.6' - 71.5 10.9' - 15.5 11.1' - 140 11.3' - 30.8	
						Sample collected at 9'-12' BGS EOB 14.8' BGS, equipment refusal				

O'BRIEN & GERE	GEOPROBE BORING LOG	REPORT OF BORING
Client: City of Rochester	Sampler: Geoprobe Macrocore	Page 1 of 1
Proj. Loc: 24 Seneca	Hammer: NA	Location: SB-19
File No.: 41933	Fall: NA	Start Date: 9/22/08 0730
		End Date: 9/22/08 0810
Boring Company: TREC		Screen = \ Grout
Foreman: Steve Stuckmaster		Riser Sand Pack
OBG Geologist: Jeremy Wolf		Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
0	1		NA	3.0	NA	Blacktop / Asphalt				
0.5	1					Light Olive Brn 2.5Y 5/3	Dry		5.6	
1	1					Silty fine sand w/trace				
1.5	1					fine gravel (sm)	(sm)		6.1	
2	1									
2.5	1								5.3	
3	1									
3.5	1								4.7	
4	1			↓						
4.5	2			4.0		Brown 10YR 4/3 silty	Damp		0.0	
5	2					clay clean no gravel (cl)				
5.5	2					Low plasticity	(cl)		0.0	
6	2									
6.5	2								0.0	
7	2									
7.5	2								0.0	
8	2			↓						
8.5	3			4.0		As above (cl) Dense	Damp		0.0	
9	3					low plasticity				
9.5	3						wet/Damp		0.0	
10	3					As above (cl) stiff med				
10.5	3					plasticity	(cl)		0.0	
11	3									
11.5	3								0.0	
12	3			↓						
12.5	4			2.5		As above (wet)	(cl) wet		0.0	
13	4					Saturated	↓			
13.5	4					DK Reddish Gray 5Y/4/2			0.0	
14.0	4					Silty fine sand (Sm) w/trace fine grav	(Sm) Dry			
14.5	4		↓	↓	↓	Refusal @ 14.7' bgs				

Collected soil sample from 10 - 13' BGS

Collected MS/MSD sample @ this interval

O'BRIEN & GERE

GEOPROBE BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca
File No.: 41933

Sampler: Geoprobe
Hammer: NA
Fall: NA

Page 1 of 1
Location: SB-20
Start Date: 9/22/08 0830
End Date: 9/22/08 0910

Boring Company: TREC
Foreman: Steve Stockmaster
OBG Geologist: Jeremy Wolf / Ari Cheremeteff

Screen / Riser / Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
0	1		NA	4.0	NA	Grass	(Sm) Dry		0.0	
0.5	1					Yellowish BRN 10YR 5/4				
1	1					Silty fine sand w/ trace			0.0	
1.5	1					fine gravel (Sm)				
2	1									
2.5	1								0.0	
3	1									
3.5	1					As above w/ 15% fine/med				
4	1			↓		Sub angular gravel (sm)	↓		0.0	
4.5	2			4.0						
5	2					As above (sm)	(Sm) Dry		0.0	
5.5	2									
6	2								0.0	
6.5	2						↓			
7	2						Sm (Damp)		0.0	
7.5	2						↓			
8	2			↓					0.6	
8.5	3			4.0		Brown 10YR 5/3	SM/SC		27.4	
9	3					Silty fine sand	(DRY)		26.0	
9.5	3					with some plasticity				
10	3								71.4	
10.5	3					SM/SC				
11	3								68.3	
11.5	3					Trace fine gravel				
12	3			↓			SM/SC (DRY)			
12.5	4			2.0		Greyish/Brown 2.5YR 5/2	GP (DRY)		N/R	
13	4					GP - poorly graded gravel	↓			
13.5	4					~~10YR~~ Brown 10YR 5/2	CL (WET)		86.0	
14	4					Silty clay	↓ Gasoline odor			
14.2	4		↓	↓	↓	Olive Grey 5Y 4/2	ML (DRY)		27.7	
						Dense silt, fine grain				
						End of Boring 14.2' bgs - equipment refusal				

Refusal @ 14.2' bgs
Gasoline odor detected @ 13-14'
Collected soil sample @ (13-14.2') for VOC, SVOC, PCB, metals & Pesticides

O'BRIEN & GERE

GEOPROBE BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca
File No.: 41933

Sampler: GEOPROBE MACRO CORE
Hammer: N/A
Fall: N/A

Page 1 of
Location: SB-21
Start Date: 9-24-08 (09:20)
End Date: 09:50 (09:55)

Boring Company: TREC
Foreman: STELE STOCKMASTER
OBG Geologist: JEREMY WOLF / ARI CHEREMETEFF

Screen / Riser
Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
0	1		NA	2.5	NA	CONCRETE FIRST 6"	SM (DRY)		0.0	
0.5	1					BROWN 10YR 4/3 SILTY FINE/MEDIUM GRAIN SAND 5% FINE ROUNDED GRAVEL				
1	1								0.2	
1.5	1									
2	1					YELLOW/BRO 10YR 5/6 FINE SAND	SW (DRY)		0.0	
2.5	1									
3	1					DARK STAINING @ BOTTOM			0.0	
3.5	1									
4	1									
4.5	2			4		AS ABOVE	SW (DRY)			
5	2					OLIVE/GREY 5Y 5/2 CLAYEY SILT - ML WITH SLIGHT TO NO PLASTICITY	ML (DRY)		0.0	
5.5	2								0.0	
6	2									
6.5	2					BROWN 7.5YR 4/3 CLAYEY SILT WITH SLIGHT TO NO PLASTICITY (ML)	ML (DRY)		2.2	
7	2									
7.5	2									
8	2									
8.5	3			3.5		BROWN 7.5YR 4/3 CLAYEY SILT - SOME PLASTICITY	ML (DRY)		0.0	
9	3								0.2	
9.5	3					SAME - SOME STAINING				
10	3					BROWN 7.5YR 4/4 CLAYEY SILT - PLASTICITY	ML (DAMP)		11.8	
10.5	3									
11	3					BROWN 7.5YR 4/4 CLAYEY SILT - DAMP/WET	ML (WET)		10.7	
11.5	3									
12	3									
12.5	4		NA	1	NA	SAME AS ABOVE	ML (DAMP)		13.0	
13	4					BROWN 7.5YR 4/2 SOME STAINING CLAYEY SILT - SOME PLASTICITY GOING TO BEDROCK	ML (WET)			
13.5	4								20.6	
						EQUIPMENT REFUSAL @ 13.5' bgs				

13.5' MAX DEPTH - EQUIPMENT REFUSAL
COLLECTED SOIL SAMPLE FROM 13-13.5' BGS

O'BRIEN & GERE	GEOPROBE BORING LOG	REPORT OF BORING
Client: City of Rochester	Sampler: GEOPROBE	Page 1 of
Proj. Loc: 24 Seneca	Hammer: MACROCORE NA	Location: SB-22
File No.: 41933	Fall: NA	Start Date: 9-24-08 (9:35)
		End Date: 9-24-08 (10:30)

Boring Company: TREC
Foreman: STEVE STOCKMASTER
OBG Geologist: JEREMY WOLF / ARI CHEREMETEFF

Screen [=] / Riser [ ] / Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	UV
0	1		NA	3.5	NA	DARK REDDISH BROWN	SP		0.0	
0.5	1		↓	↓	↓	5YR 3/2 SP	(DRY)			
1	1					5% ROUNDED GRAVELS	↓		0.0	
1.5	1					SOME STAINING ~2'	SP (DRY)			
2	1					DARK RED/BROWN	↓		0.3	
2.5	1					5YR 3/3				
3	1					SILTY GRAVEY W/ SAND/CLAY	SP (DRY)		0.0	
3.5	1									
4	1			↓		SOME STAINING ~ 3.5-4'	↓			
4.5	2			3.0		DARK YELLOWISH BROWN	ML (DRY)		0.0	
5	2					10YR 4/4	↓			
5.5	2					ML CLAYEY SILT			0.0	
6	2					SAME AS ABOVE	ML (DRY)			
6.5	2					YELLOWISH BROWN 10YR 5/6	↓		3.1	
7	2					CLAYEY SILT - PLASTICITY	ML			
7.5	2						(DAMP)		2.0	
8	2			↓			↓			
8.5	3			3.0		DARK YELLOWISH BROWN	ML (DAMP)		3.0	
9	3					10YR 4/4	↓			
9.5	3					ML CLAYEY SILT DAMP	ML (DAMP)		2.9	
10	3					REDDISH BROWN 5YR 4/3				
10.5	3					ML CLAYEY SILT - DAMP	↓		33.6	
11	3					HIGHER PLASTICITY	ML (WET)			
11.5	3						↓		35.8	
12	3			↓		SAME AS ABOVE - WET				
12.5	4			1.8		REDDISH BROWN 5YR 4/3	ML (DAMP)			
13	4					ML - CLAYEY SILT - DAMP	↓		9.8	
13.5	4					SAME AS ABOVE - WET	ML WET		7.1	
13.8	4		↓	↓	↓	EQUIPMENT REFUSAL @ 13.8' BGS				

13.8' EQUIPMENT REFUSAL

COLLECTED SAMPLE FROM (10-12') BGS

O'BRIEN & GERE

GEOPROBE BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca
File No.: 41933

Sampler: GEOPROBE
Hammer: MACROCORE
MA
Fall: NA

Page 1 of
Location: SB-23
Start Date: 9-24-08 (10:45)
End Date: 9-24-08 (11:30)

Boring Company: TREC
Foreman: STEVE STOCKMASTER
OBG Geologist: JEREMY WOLF / ARI CHEREMETEFF

Screen =
Riser
Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
0	1		NA	2	NA	BROWN 7.5YR 4/2 SAND, GRAVEL, FINES 15% ROUNDED	SW (DRY)		0.0	
0.5	1									
1	1								0.0	
1.5	1					BROWN 7.5 YR 4/3 SANDY, SILT LOW PLASTICITY	SM (DAMP)		0.0	
2	1								0.0	
2.5	1									
3	1									
3.5	1									
4	1									
4.5	2			3.5		SAME AS ABOVE	SM (DRY)		0.0	
5	2						↓			
5.5	2					REDDISH BROWN 7.5YR 4/3 SANDY, SILT TURNING TO CLAYEY	SM (DAMP) ↓ SC (DAMP)		0.0	
6	2									
6.5	2								0.0	
7	2					REDDISH BROWN 7.5 YR 4/4 CLAYEY SANDS - MOIST (DAMP)	↓			
7.5	2								0.0	
8	2									
8.5	3			9		BROWN 7.5 YR 4/2 SAND, GRAVEL, 15% ROUNDED FINES	SW (DRY)		0.0	
9	3						↓			
9.5	3								0.0	
10	3					RED/BROWN 7.5 YR 4/3 SANDY, SILT	SM (DRY)			
10.5	3						↓		0.0	
11	3					REDDISH BROWN 7.5 YR 4/4 CLAYEY SAND - MOIST DAMP	SC (DAMP)			
11.5	3						↓		0.0	
12	3									
12.5	4			1.7		SAME AS ABOVE - SOME PLASTICITY	SC (DAMP)		0.0	
13	4						↓			
13.5	4					BROWN SANDY 7.5YR 3/3	SM (DAMP)		0.0	
14	4									
14.2	4		↓	↓	↓	REDDISH BROWN 7.5YR 4/4 CLAYEY SAND - DAMP - WET	↓ SC (DAMP → WET)		0.0	
						REFUSAL @ 14.2' bgs				

14.2' EQUIP. REFUSAL.
SOIL SAMPLE COLLECTED FROM 7-8' BGS

O'BRIEN & GERE	GEOPROBE BORING LOG	REPORT OF BORING
Client: City of Rochester	Sampler: GEOPROBE	Page 1 of 1
Proj. Loc: 24 Seneca	Hammer: MACROCORE	Location: SB-24
File No.: 41933	Fall: NA	Start Date: 9-24-08 (11:40) End Date: 9-24-08 (12:15)
Boring Company: TREC Foreman: STEVE STOCKMASTER / OBG Geologist: JEREMY WOLFE / ARI CHEREMETEFF		Screen = / Riser / Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	UV
0	1		NA	4'	NA	YELLOW BROWN 2.5Y 4/3	SM (DRY)		10.0	
0.5	1		↓	↓	↓	SAND/SILT MIXTURE	↓			
1	1					YELLOW BROWN 2.5 Y 5/4			6.1	
1.5	1					HARD SAND/SILT MIXTURE	SM (DRY)			
2	1						↓		53.8	
2.5	1					SAME AS ABOVE				
3	1						SM (DRY)		47.1	
3.5	1						↓			
4	1									
4.5	2			3.5'		YELLOW BROWN 2.5Y 4/3	SM (DAMP)		52.0	
5	2			↓		SAND/SILT	↓			
5.5	2					YELLOW BROWN 2.5 Y 5/4			47.7	
6	2					SAND-SILT DRY	SM (DRY)			
6.5	2						↓		228.1	
7	2					YELLOW BROWN 2.5 Y 5/4				
7.5	2					SAND/SILT - HARD DRY	SM (DRY)		187.0	
8	2						↓			
8.5	3			3.7		OLIVE BROWN 2.5Y 5/4	SC (DRY)			
9	3			↓		HARD CLAYEY SILT	↓		413	
9.5	3					SAME			329	
10	3									
10.5	3								107	
11	3								85	
11.7	3		↓	↓	↓	EQUIPMENT REFUSAL 11.7	↓			

11.7' EQUIP. REFUSAL

(*) BLIND DUP COLLECTED @ 8-10.5' bgs

SAMPLE COLLECTED @ 8-10.5' bgs

Appendix D

Monitoring Well Logs dated 8/15/2011 thru 8/17/2011

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862 / 47362

Sampler: split spoon
Hammer: Hydraulic
Fall: 30"

Page 1 of 2
Location: MW-10
Start Date: 8/16/11 1226
End Date: 8/17/11 1235

Boring Company: Nothnagle Drilling
Foreman: steve warrenty
OBG Field Personnel: Anthony DiNardo / Jeremy Wolf

Screen / Riser / Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	UV
1226 0.5	1		10	75%		6" med angular gravel				
1	1		10	↓		very dk brn. 10YR 2/2 med snd. (SW) w 10% fine/med sw/rod. gravel	DRY (SW)		0.6	
1.5	1		7							
2	1		6	↓						
2.5	2		2	0%		No recovery	NA		NA	
3	2		1	↓						
3.5	2		2							
4	2		1	↓						
4.5	3		4	75%		Pale Brown 10YR 6/3				
5	3		6	↓		Dense silt (ml) no plasticity	DRY (ml)		0.3	
5.5	3		9							
6	3		10	↓						
6.5	4		6	85%		As above w/				
7	4		11	↓		trace weathered ~~Bedrock~~ Rock	DRY (ML)		0.3	
7.5	4		18							
8	4		22	↓						
1243 8.5	5		9	90%		As above w/ 15% med/fn.				
9	5		20	↓		angular gravel	DRY (ML)		0.2	
9.5	5		24							
10	5		28	↓						
10.5	6		30	20%		As above (ML)	DRY (ML)			
1255 11	6		100	↓		Refusal @ 11.1' BGS @ Rock			0.1	
11.5	NA		NA	NA		initiate rock socket @ 11.5' BGS	Rock 11.1' BGS			
12										
12.5										
13										
13.5										
1340 14						rock socket complete @ 14 ft				
8/17 14.5						Start blind drill with 3 7/8" roller bit				
1145 15										
15.5										
16										
16.5						No water lost				
17										
17.5										
18										
18.5										
19										
19.5										
1152 20						NO WATER LOST				
20.5										
21										
21.5										

with continuous split-spoon sampling

Geotech Sample GT-5 Collected @ 4-6' BGS
GT-6 Collected @ 6-8' BGS

4 1/4" HSA to 11.1 BGS will start w/ 5 7/8" roller bit @ ~11.5' BGS to ream out rock socket to 14.' bgs. Pressure grouted steel well casing 0 - 14' bgs. Continued blind drill w/ 3 7/8" roller bit to 35' bgs.

VBE (IV)

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862 / 47362

Sampler: NA
Hammer: NA
Fall: NA

Page 2 of 2
Location: MW-10
Start Date: 8/16/11 1226
End Date: 8/17/11 1235

Boring Company: Nothnagle Drilling
Foreman: Steve Lapcarty
OBG Field Personnel: Anthony DiNardo

Screen =
Riser
Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
22	NA		NA	NA		no water lost				
22.5										
23										
23.5										
24 (1220)										
24.5										
25										
25.5										
26										
26.5										
27										
27.5										
28										
28.5										
29						Approx. 8 gallons lost.				
29.5										
30 (1215)										
30.5										
31										
31.5										
32										
32.5										
33										
33.5										
34										
34.5						Approx. 20 gallons lost				
35 (1235)						End of boring @ 35' BGS				

WELL CONSTRUCTION: 2" PVC 10 slot well screen 15' - 35' bgs. Sand pack 13' - 35' bgs. Bentonite seal 2' - 13' bgs. Surface mt. curb box set in concrete ring.

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862 / 47362

Sampler: split Spoon 2 inch
Hammer: Hydraulic
Fall: 30"

Page 1 of 2
Location: MW-11
Start Date: ~~8/3/11~~ 8/15/11 (12:05)
End Date: 8/17/11 ~10:00

Boring Company: Nothnagle Drilling
Foreman: Steve Lorrenti
OBG Field Personnel: Anthony DiNardo

Screen / Riser
Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
0.5				0		Asphalt 0-3"	Asphalt			
1				0		Gravel 3"-2 ft	Gravel		0.0	
1205 1.5				0						
2				0						
2.5	1		5	50%		Reddish brown (5YR 5/3) medium sand and angular/	Damp		0.0	
1220 3	1		6			rounded gravel (50%)	(SW)			
3.5	1		6						0.0	
4	1		8	↓						
4.5	2		1	6%		as above with fine (½ inch)	Damp		0.0	
1223 5	2		1			gravel (30%)	(SW)			
5.5	2		2							
6	2		4	↓						
6.5	3		9	0%		No recovery	NA		NA	
12:28 7	3		12							
7.5	3		24							
8	3		25	↓						
8.5	4		8	90%		Grayish brown (2.5Y 5/2) fine	Moist		0.0	
12:34 9	4		18			silty sand, trace ½ inch gravel	(SM)			
9.5	4		20			~9.5 ft. somewhat dense			0.0	
10	4		18	↓						
1236 10.5	5		9/100	20%		as above, weathered bedrock at 10.4	dry		0.0	
11	NA		NA	NA		initiated installation of				
11.5						rock socket @ 10.4' bgs				
12										
12.5										
13										
13.5										
8/17/11 14						End of Rock socket @ 14' bgs				
0800 14.5						Start Blind Drill w 3 7/8"				
15						roller bit				
15.5										
16										
16.5										
17										
17.5										
18										
18.5										
19										
19.5										
20										
20.5										
0847 21										
21.5	↓		↓	↓						

No water lost

Notes: Eopt refusal at approx. 10 - 10.4 ft bgs (weathered bedrock)
GT-3 collected from 2ft to 4 ft
GT-4 collected from 8ft to 10ft
No odors or staining observed.

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862 / 47362

Sampler: NA
Hammer: NA
Fall: NA

Page 2 of 2
Location: MW-11
Start Date: 8/15/11 12:05
End Date: ~~8/16/11~~ ~10:00

Boring Company: Nothnagle
Foreman: Steve Lorrenti
OBG Field Personnel: Jeremy Wolf

Screen = 8/17/11
Riser
Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
22	NA		NA	NA		Continue Blind Drill w/ 3 7/8" roller bit				
22.5										
23										
23.5										
24										
24.5										
25										
25.5						Lost ~ 5 gallons water				
26										
26.5										
27										
27.5										
28										
28.5										
29										
29.5										
30										
30.5						Lost ~ 15 gallons water				
0930 31										
31.5										
32										
32.5										
33										
33.5										
34										
34.5										
0953 35	↓		↓	↓		Lost ~ 10 gallons water				
						End of Boring @ 35' BGS				

4 1/4" HSA to 10.4' BGS w/ continuous split spoon sampling. Reamed out bedrock w/ 5 7/8" roller bit to 14' bgs to install 4" steel well casing. Pressure grouted steel well casing 0-14' bgs. Continued blind drill w/ 3 7/8" roller bit to 35' bgs.

- Well Construction: 2" PVC 10 slot well screen 15'-35' BGS. Sand Pack 13'-35' BGS. Bentonit Seal 2'-13' surface mt. curb box set in cold asphalt patch.

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862 / 47362

Sampler: Split Spoon 2 inch
Hammer: Hydraulic
Fall: 30"

Page 1 of 2
Location: MW-12
Start Date: 8/15/11 (09:30)
End Date: 8/16/11

Boring Company: Nothnagle Drilling
Foreman: Steve Lorrenti
OBG Field Personnel: Anthony DiNardo

Screen / Riser / Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
0,5	1		1	100%		Asphalt pieces, (3/2) 7.5 YR Dark brown to 7.5 YR 5/6 Strong brown Fine sand, some gravel (rounded) at surface	Dry (SM)		0.0	
1	1		3						0.0	
1,5	1		2							
2	1		3	↓						
2,5	2		5	50%		↓ same - mottled (7.5 YR 5/1) Gray and (7.5 YR 5/6) strong brown clayey silty sand	Moist (SC)		0.0	
3	2		3							
3.5	2		3						0.0	
4	2		3	↓						
4.5	3		1	75%		↓ same	Moist (SM)		0.0	
5	3		1							
5.5	3		3			(7.5 YR 5/1) Gray & (7.5 YR 5/6) Brown silty fine sand				
6	3		8	↓					0.0	
6.5	4		9	100%		very dense (10 YR 5/3) Brown silty sand to clayey sand	Moist (SC)		0.0	
7	4		18							
7.5	4		18						0.0	
8	4		26	↓						
8.5	5		7	80%		As above	Dry (SC)		0.0	
9	5		18							
9.5	5		19						0.0	
10	5		20	↓						
10.5	6		8	75%		As above	Dry (SC)		0.0	
11	6		30							
11.5	6		100						0.0	
12	6		—	↓		weathered bedrock at ~12ft initiated installation of rock socket.				
12.5	NA		NA							
13	NA									
13.5	NA									
14	NA									
14.5	NA								0.0	
15	NA					rock socket complete at 15 ft bgs				
15.5	1					Core Run #1 15 ft - 20 ft bgs Bluish gray fractured dolomite shale Mechanical breaks throughout core Horizontal fractures @ 15.5, 17.1, 19 & 19.8 (clay filled). Trace vugs & horizontal fractures. No iron staining no odors observed.	Lost ~15 gal water		0.0	
16	1									
16.5	1									
17	1									
17.5	1									
18	1									
18.5	1									
19	1								0.0	
19.5	1									
20	1									
20.5	2					As above, no clay observed. mechanic fractures/breaks throughout core,				
21	2								0.0	
21.5	2									

Notes: Eqpt refusal at ~12 ft - bedrock (weathered)
GT-1 collected from 2 ft-4 ft
GT-2 collected from 8 ft-10 ft
No odors or staining observed.

O'BRIEN & GERE

TEST BORING LOG

REPORT OF BORING

Client: City of Rochester
Proj. Loc: 24 Seneca Avenue
File No.: 11862 / 47362

Sampler:
Hammer:
Fall:

Page 2 of 2
Location: MW-12
Start Date: 8/15/11
End Date: 8/16/11

Boring Company: Nothnagle Drilling
Foreman: ~~Steve~~ Lorenti
OBG Field Personnel: Anthony DiNardo / Jeremy Wolf

Screen =
Riser
Grout
Sand Pack
Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing UV
22	2		NA			~~Horiz fract~~ (H) Horizontal fracture at 21, 22.3, 23.3, 24.2	Lost ~15 gal H2O		0.0	
22.5	2									
23	2					(H) trace vugs, no iron observed,			0.0	
23.5	2									
24	2					no staining observed.				
24.5	2								0.0	
0907 25	2									
0910 25.5	3					~~Core run #3~~ As above. mechanical breaks throughout core.	Lost ~15 gal H2O		0.0	
26	3					Horizonal fractures @				
26.5	3					25.2, 25.9, 26.9, 27.9,			0.0	
27	3					28.2				
27.5	3					small vertical fracture at 25.9.			0.0	
28	3									
28.5	3					no clay or iron observed.				
29	3								0.0	
29.5	3					more competent than above, less fractured.				
0921 30	3									
0930 30.5	4		NA			Core run #4. Bluish gray dolomite shale. more competent than above much fewer fractures. & mechanical breaks. Horizont fracture @ 31.5, 33	Lost ~15 gal H2O		0.0	
31	4								0.0	
31.5	4									
32	4									
32.5	4								0.0	
33	4									
33.5	4								0.0	
34	4									
34.5	4									
35	4									
0942						End of boring @ 35' bgs.				

Notes: 4 1/4" HSA w/ continuous split spoon to 12' bgs. 12' - 15' bgs Ream Rock socket w/ 5 7/8" roller bit. Pressure grout 4" steel casing 0 - 15' bgs. 1st core run 15' bgs. 2nd core run 20' bgs, 3rd core run 25' bgs, 4th core run 30' bgs. End of boring @ 35' bgs.

Well Installation Details: 2" PVC Well screen (10 slot) 15 - 35' Bgs. 2" PVC Riser 0 - 15' bgs. Sand Pack 13' - 35' Bgs. Bentonite Seal 2 - 13', Surface mt. Curb box set in Concrete 0 - 2'.

O'Brien & Gere

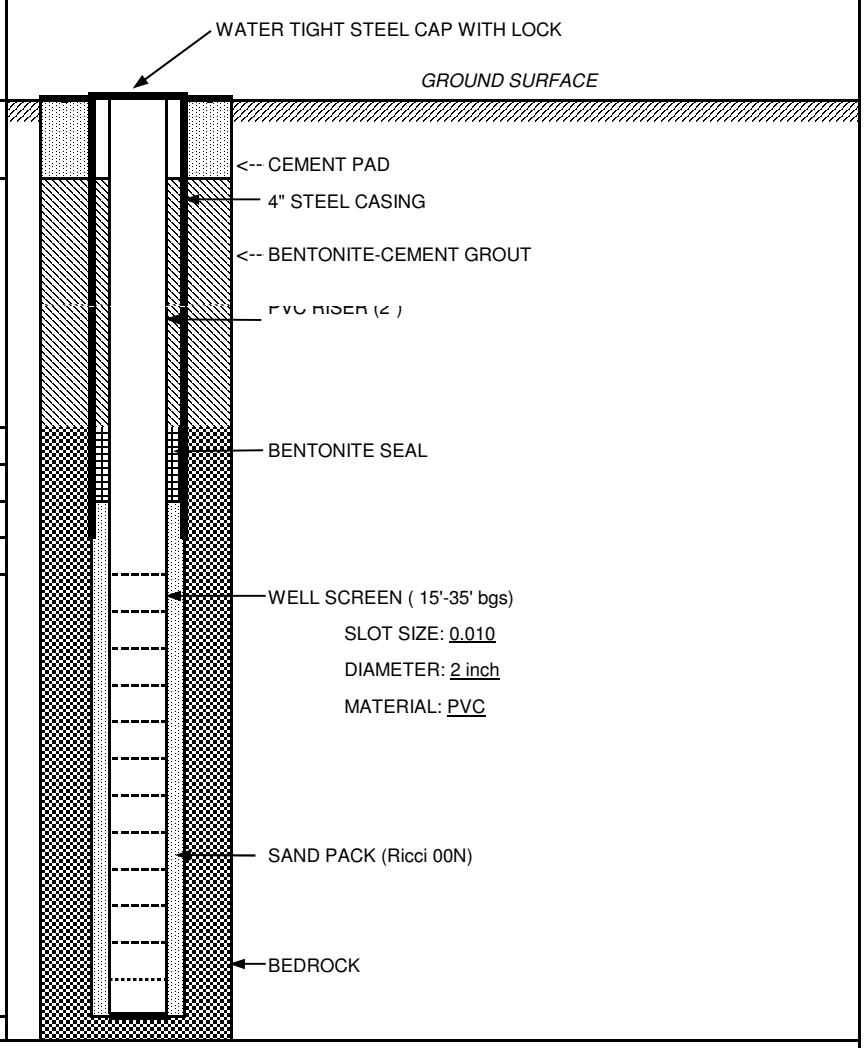
WELL : **MW-10**

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	Project No.				Site Elevation Datum (feet) *
24 Seneca Avenue	**11862 / 47362**				459.434
Drilling Company	*Foreman*	Sampler	Fall	Hammer	*Ground Elevation (feet)*
Nothnagle Drilling	Steve L.				458.76
Surveyor		Steel split spoon 2"	30"	Hyd-raulic 140 lb.	*Top of 4" Steel Protective Well Casing Elevation (feet)*
City of Rochester					NA
Start Date: 8/16/11	*Field Personnel*				*Top of 2" PVC Riser Pipe Elevation (feet)*
End Date: 8/17/11	Anthony DiNardo - OBG				458.49

Generalized Description	*Elevation	**Depth
See boring log for MW-10 for full details.		
Top of Cement Pad	458.76	0.0
Top of Bentonite-Cement Grout	457.76	1.0
Top of Weathered Rock and Top of Bentonite Seal	447.66	11.1
Top of Rock Socket	447.26	11.5
Bottom of Rock Socket and Top of Sand Pack (Ricci 00N)	445.76	13.0
Bottom of Rock Socket	444.76	14.0
Top of PVC Well Screen	443.76	15.0
Bottom of PVC Screen and Bottom of Boring	423.76	35.0

CONSTRUCTION DETAILS



REMARKS $4^{1/4}$" HSA to top of rock at 11.1'. Continued drilling with $5^{7/8}$" roller bit to 14' bgs to install rock socket. Pressure grouted 4" steel casing from 0'-14' bgs. Initiated rotary drilling (blind drill) with $3^{7/8}$" roller bit at 14' bgs. Complete rotary drilling with $3^{7/8}$" roller bit at 35' bgs.

** Depth in feet below ground surface (bgs).

* Vertical information referenced to RTS Monument #091630207 SE Corner of Norton St. and Joseph Ave.

O'Brien & Gere

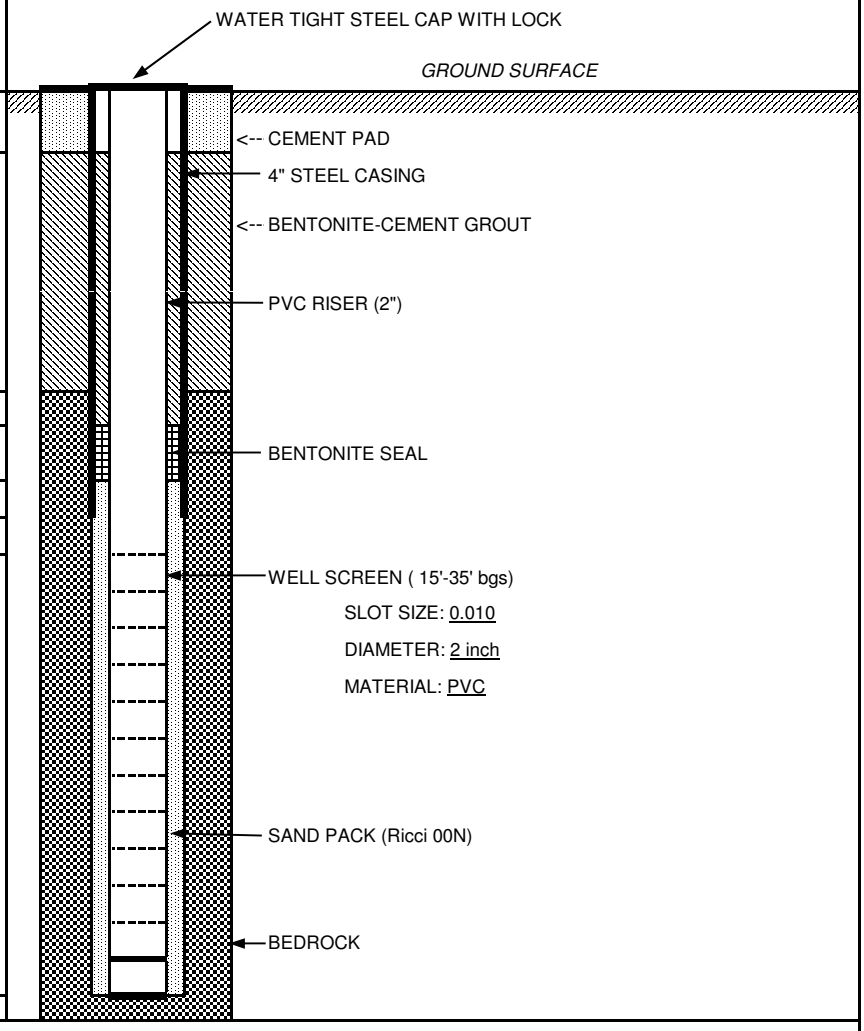
WELL : **MW-11**

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	*Project No.*				*Site Elevation Datum (feet) **
24 Seneca Avenue	**11862 / 47362**				459.434
Drilling Company	*Foreman*				*Ground Elevation (feet)*
Nothnagle Drilling	Steve L.	Sampler	Fall	Hammer	458.81
Surveyor		Steel split spoon 2"	30"	Hyd-raulic 140 lb.	*Top of 4" Steel Protective Well Casing Elevation (feet)*
City of Rochester					NA
Start Date: 8/15/11	*Field Personnel*				*Top of 2" PVC Riser Pipe Elevation (feet)*
End Date: 8/17/11	Anthony DiNardo - OBG				458.49

Generalized Description	*Elevation	**Depth
See boring log for MW-11 for full details.		
Top of Cement Pad	458.81	0.0
Top of Bentonite-Cement Grout	457.81	1.0
Top of Weathered Rock and Top of Rock Socket	448.41	10.4
Top of Bentonite Seal	447.81	11.0
Top of Sand Pack (Ricci 00N)	445.81	13.0
Bottom of Rock Socket	444.81	14.0
Top of PVC Well Screen	443.81	15.0
Bottom of PVC Screen and Bottom of Boring	423.81	35.0

CONSTRUCTION DETAILS



REMARKS $4^{1/4}$" HSA to top of rock at 10.4' bgs. Continued drilling with 5 $^{7/8}$" roller bit to 14' bgs to install rock socket. Pressure grouted 4" steel casing from 0'-14' bgs. Initiated rotary drilling (blind drill) with $3^{7/8}$" roller bit at 14' bgs. Complete rotary drilling with $3^{7/8}$" roller bit @35' bgs.

** Depth in feet below ground surface (bgs).

* Vertical information referenced to RTS Monument #091630207 SE Corner of Norton St. and Joseph Ave.

O'Brien & Gere

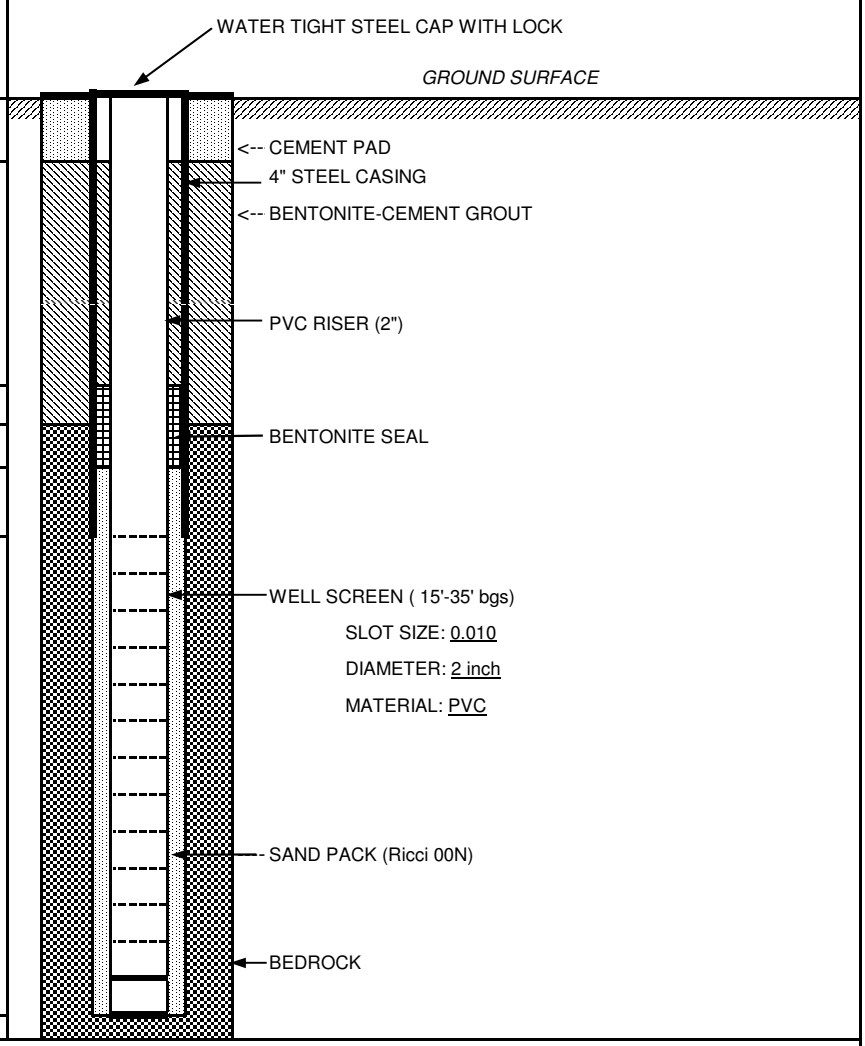
WELL : **MW-12**

MONITORING WELL CONSTRUCTION LOG

Project Name & Location	Project No.				Site Elevation Datum (feet) *
24 Seneca Avenue	**11862 / 47362**				459.434
Drilling Company	*Foreman*				*Ground Elevation (feet)*
Nothnagle Drilling	Steve L.	Sampler	Fall	Hammer	461.47
Surveyor		Steel split spoon 2", HQ core 5'	30"	Hyd-raulic 140 lb.	*Top of 4" Steel Protective Well Casing Elevation (feet)*
City of Rochester					NA
Start Date: 8/15/11	*Field Personnel*				*Top of 2" PVC Riser Pipe Elevation (feet)*
End Date: 8/16/11	Anthony DiNardo - OBG				461.19

Generalized Description	*Elevation	**Depth
See boring log for MW-12 for full details.		
Top of Cement Pad	461.47	0.0
Top of Bentonite-Cement Grout	460.47	1.0
Top of Bentonite Seal	450.47	11.0
Top of Rock Socket	449.47	12.0
Top of Sand Pack (Ricci 00N)	448.47	13.0
Top of PVC Well Screen and Bottom of Rock Socket	446.47	15.0
Bottom of PVC Screen and Bottom of Boring	426.47	35.0

CONSTRUCTION DETAILS



REMARKS 4 1/4" HSA to top of rock at 12' bgs. Continued drilling with 5 7/8" roller bit to 15' bgs to install rock socket. Pressure grouted 4" steel casing from 0'-15' bgs. Initiated HQ core runs @15' bgs to boring completion depth @35' bgs (4 core runs).

** Depth in feet below ground surface (bgs).

* Vertical information referenced to RTS Monument #091630207 SE Corner of Norton St. and Joseph Ave.

Appendix E

Soil Boring Logs dated 8/1/2011 thru 8/3/2011

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-25

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.001.001
BORING COMPANY:	TREC Env.
FOREMAN:	Chad
OBG FIELD PERSONNEL:	Anthony DiNardo
Boring Location:	SB-25
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	15.1 Refusal: (Y)/ N
Depth to Groundwater:	
Start date:	8/2/11 0900
Completion date:	8/2/11 0930

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
					concrete 0-0.5			
0	1	0 - 4	45%		Dark brown (10 YR 3/3) (SW) well graded medium sand, some brick (fill) pieces 10% subangular gravel	0.6		
1						0.9	4.2	Dry
2						0.8		
3						0.9		
4	2	4 - 8	100%		As above (4 - 4.8')	0.8	3.1	
5					Yellowish brown (10 YR 5/4) clayey silt (ML) trace subangular gravel	0.7		Dry
6						0.7	5.7	Slight moist
7						0.7		
8		8 - 12	100%		As above 8 - 8.3'	4.1	148	
9					Dark grayish brown (10YR 4/2) clayey silt (ML) strong petroleum odor some fine brittle silt	122		Moist to damp
10				(10 - 12)		116	195	
11						121		
12		12 - 16	10%		As above, some black staining, strong petroleum odor, some subangular gravel (5%)	163	109	
13						88		Moist
14						52	126	
15					Eopt refusal @ 15.1' bgs	207		
16								

Notes: Background PID = 0.4 ppm, refusal 15.1

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB- 26

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC Env.
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-26
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	15.1 **Refusal:** (Y) N
Depth to Groundwater:	
Start date:	8/3/11 1030
Completion date:	8/3/11 1105

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	63%		concrete 0-0.4	6.7	5.5	
1					Fill, gravel black/white ash black silty fine sand, petroleum odor	14.3		dry
2					turns to brown (10YR 5/3)	108	134	
3						163		
4	2	4 - 8	75%		As above to 4.4 ft	130		
5					Dark grayish brown (2.5Y 4/2) clay (CL) to 7.8 ft.	163	179	moist
6				(6-8)	Dark grayish brown (2.5Y 4/2) fine silty sand (ML-SM) strong petroleum odor, thin stringers	152	249	
7						162		
8		8 - 12	100%		As above	83	117	moist
9					changes to (4/4 2.5Y) olive brown fine silty sand petroleum odor, trace gravel (SM)	78.3		
10						24.4	18.1	damp
11						15.6		
12		12 - 16	40%	(13-15)	As above to 14.7 ft.	12.2	48.5	saturated to 14.3
13					Strong brown (7.5YR 4/6) sand and coarse angular gravel, some broken bedrock pieces petroleum odor	14.7		
14						38.9		damp
15						20.2		
16								

Notes: Eqpt refusal 15.1 ft bgs

Bkgd 0.8 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-27

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC Env.
FOREMAN:	Chad
OBG FIELD PERSONNEL:	Anthony DiNardo

Boring Location:	SB-27
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	15.5
Refusal:	(Y) N
Depth to Groundwater:	
Start date:	8/2/11 0945
Completion date:	8/2/11 1022

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
					concrete 0-0.5			
0	1	0 - 4	50%		Angular gravel 0.5-1.4	53	NA	
					concrete pieces, strong brown (7.5 YR 5/8) well graded sand and subangular gravel (25%) strong petroleum odor	59.1		Dry
1								
2						52	3.8	
						52		
3								
4	2	4 - 8	100%		As above 4 - 5.2	55.9	12.3	
					clayey silt, brown (7.5 YR 4/3) trace (3%) subangular gravel (some coarse gravel 7-8 ft) slight petroleum odor	47.2		Moist
5								
6						28.2	27.5	
						13.5		
7								
8		8 - 12	100%		As above,	45.3	87.2	moist
						13.1		
9								
10						192	196	damp
					strong petroleum odor	50		
11				(10-12)				
12		12 - 16	5%		As above, strong petroleum odor	165	68	damp wet
						169		
13								
14						142	120	damp wet
					Eopt refusal 15.5 ft bgs			
15						160		
16								

Notes: Eopt refusal 15.5 ft bgs, background PID = 0.3 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB- 28**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC Env.
FOREMAN:	Mike
OBG FIELD PERSONNEL:	Anthony DiNardo
Boring Location:	SB-28
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	13.5 **Refusal:** (Y)/ N
Depth to Groundwater:	
Start date:	8/2/11 10:52
Completion date:	8/2/11 11:24

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	60%		concrete 0 - 0.4	79	76	
1					Fill, concrete, gravel, brick pieces, well graded (SW) sand brown (7.5 YR 5/3) slight petroleum odor	58		dry
2						30	45	
3						14		
4	2	4 - 8	60%		As above 4 - 5.3	20	47	dry
5					Brown (7.5 YR 4/3) silty sand (SM), 10% subangular gravel	16		
6						14	30	moist
7						12		
8		8 - 12	30%		As above, some gravel angular (25%)	24	13.2	
9								moist
10					7.2ft	13	21	
11					well graded sand (SW) 10% subangular gravel			
12		12 - 16	15%	12-13.5	As above, very strong petroleum odor	117	108	slightly damp
13					Refusal 13.5 ft bgs			
14								
15								
16								

Notes: Eopt refusal 13.5 ft bgs, Background PID = 0.3ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-29

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 4736 ~, 001, 001
BORING COMPANY:	TREC Env.
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD

Boring Location:	SB-29
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	13.7
Refusal:	(Y) / N
Depth to Groundwater:	
Start date:	8/2/11 11:30
Completion date:	8/2/11 12:07

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	5%		concrete 0 ~ 0.5	12.1		
1					concrete pieces, brown 10YR 5/3, well graded sand (SW) 10% subangular gravel	NA	NA	dry
2						NA		
3						NA		
4	2	4 - 8	100%		As above 4 ~ 5.7	75		
5					Strong brown (7.5 YR 4/6), silty sand (SM), trace subangular gravel slight odors	55	6	dry
6						60	17	
7						20		moist
8		8 - 12	75%		As above	15	51	
9					9.3 ~ wet, well graded brown sand, trace silt (SW), 10YR 4/4, dark yellowish brown, some angular gravel (10%)	10		wet 9.3
10						4		
11						5	11	
12		12 - 16	30%	12 - 13.7	As above, eopt refusal @ 13.7 ft bgs.	6	14	
13						3		wet
14						2	X	
15						5		
16								

Notes: Background PID = 0.5 ppm.
Refusal 13.7 ft

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-30**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC
FOREMAN:	MIKE
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-30
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	13.5 ft **Refusal:** (Y) / N
Depth to Groundwater:	
Start date:	8/3/11 0820
Completion date:	8/3/11 0845

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	75%		concrete 0 - 5"			
					concrete pieces/gravel, brick fill, brown sand, subangular gravel	5.7	20.4	
1					3.6 ft	8.9		dry
					(7.5 YR 2.5/3) very dark brown well graded sand (SW)			
2						14.3	20.8	
3						17.1		
4	2	4 - 8	75%		As above	25.9	4.1	
						13.9		moist
5					Dark brown (3/4 7.5 YR) well graded sand / subangular gravel (SW & GW)			
6						8.7	7.6	
7						5.8		
8		8 - 12	75%		As above, 10% subangular gravel	9.0	5.8	moist
						25.8		to
9					rocks 10.8 - 11.4			
10						26.8	12.6	damp
11						21.0		
12		12 - 16	25%	(12 - 13.5)	Dark brown (7.5 YR 3/4) silty fine sand, 10% subangular gravel	6.4	18.3	wet
						48.7		
13								
14					some weathered rock 13.2 - 13.5 ft, Eqpt refusal	58.2		moist
15						65.5		
16								

Notes: Eqpt refusal 13.5 ft bgs, Background PID = 0.7 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-31**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC Env
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD

Boring Location:	SB-31
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	13.4 **Refusal:** (Y) / N
Depth to Groundwater:	
Start date:	8/2/11 1609
Completion date:	8/2/11 1635

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	65%		concrete 0 - 0.3	14.1		
					concrete pieces 0.3-0.5			
1						18.3		dry
					Very dark grayish brown (10 YR 3/2), well graded sands (SW), 20% subangular gravel			
2						26.1	29.9	
3						18.9		
4	2	4 - 8	80%		As above, 30-40% subangular and angular gravel	11.2	12.9	
5						10.1		moist
6						9.6	15	
7						9.3		
8		8 - 12	75%		As above, 10.4 damp	12.7	18.5	moist
9						9.3		
10						7.7	9.5	damp
11						8.7		
12		12 - 16	50%	12-13.4	As above, saturated	4.1	33.0	saturated
13					Eqpt refusal 13.4 ft	3.8		
14						18.7		
15						20.3		
16								

Notes: Eqpt refusal 13.4 ft bgs, Background PID = 0.2 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-32**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC
FOREMAN:	MIKE F.
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-32
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	14.5 ft Refusal: (Y) N
Depth to Groundwater:	
Start date:	8/3/11 0945
Completion date:	8/3/11 1010

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	75%		concrete 4"	5.9	1.8	
					concrete rubble 2"			
1						7.4		
					Dark brown (10YR 3/3) fine sand, 15% subangular gravel			dry
2						5.8	1.3	
					changes to (10YR 4/6) Dark yellowish brown @ 3.7			
3						4.2		
4	2	4 - 8	100%		As above to 8.8 ft	0	1.9	
5					strong brown 7.5YR (4/6) fine silty sand, 10% gravel (SM)	0		dry
6						0	2	
7						0		
8		8 - 12	100%		As above to 9.3 ft	0	0.9	dry
9					Brown (7.5YR 4/3) fine silty sand, 5% gravel (SM) damp	0		
10						0	0	damp
11						0		
12		12 - 16	50%	(12-14.5)	As above..	0	0	saturated
13					turns to damp/moist at 14.3 ft, mostly pieces of rocks	4.8		
14								
15								
16								

Notes: 2" split spt refusal 14.5 ft bgs MS/MSD

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC.

SOIL BORING LOG — **SB-33**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/47362.001.001
BORING COMPANY:	TREC Env
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-33
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	13.1 Refusal: (Y)/N
Depth to Groundwater:	
Start date:	8/2/11 1515
Completion date:	8/2/11 1530

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	30%		concrete 0 - 0.3	NA	NA	
1					concrete pieces / gravel 0.3 to 1 ft.	4.1		dry
2					Dark brown (7.5 YR 3/4) well graded sands (SW) 15% subangular gravel	36.3	25.4	
3						11.9		
4	2	4 - 8	75%		As above.	23.0	41.8	
5						23.2		dry
6						42.5	114	
7						102		
8		8 - 12	75%		As above to 9.2 ft	165	437	dry ~~slightly~~ moist
9					Dark brown (7.5 YR 3/4) silty sand, 10% subangular gravel (SM & SW) very strong chemical odor solvent	164		
10						463	1448	
11				(10-12)		3,160		
12		12 - 16	25%	(12-13.1)	As above, some minor pieces of rock at bottom, eqpt refusal @ 13.1 ft bgs	384	945	
13						889		
14						791		
15						346.		
16								

Notes: Eqpt refusal @ 13.1 ft bgs., background PID = 0.4 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-34**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC
FOREMAN:	MIKE E. AMD
OBG FIELD PERSONNEL	

Boring Location:	SB-34
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	6.1 **Refusal:** (Y) N
Depth to Groundwater:	
Start date:	8/3/11 0900
Completion date:	8/3/11 0910

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm
0	1	0 - 4	75%		concrete 0 - 0.5		
					Dark brown (7.5 YR 3/3) silty clayey sand, 5% angular gravel (SM & SC)	3.7	2.1 dry
1						4.0	
2						3.8	3.5
3						5.1	
4	2	4 - 8	10%	(4-6)	As above,	2.0	1.6 dry
5					eqpt refusal 6.1 ft bgs.	16.7	
6							
7							
8		8 - 12					
9							
10							
11							
12		12 - 16					
13							
14							
15							
16							

Notes: refusal 6.1 ft. background 0.8 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-34(A)**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC ENV
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-34 (A)
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	6 ft Refusal: (Y) / N
Depth to Groundwater:	
Start date:	8/3/11
Completion date:	8/3/11

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm
0	1	0 - 4	50%		concrete 0 -	0.0	
1					concrete pieces, gravel, black ash - 0.5	6.6	dry
2					strong brown (7.5 YR 4/6) silty sand (SM) trace angular gravel	8.1	
3					3.3 - dark yellowish brown (10YR 4/4) silty sand	7.8	
4	2	4 - 8	15%		As above, brittle-looking Eqpt refusal. 6 ft bgs	0.0	dry
5						0.0	
6							
7							
8		8 - 12					
9							
10							
11							
12		12 - 16					
13							
14							
15							
16							

Notes: PID = 0.0 ppm 6 ft bgs refusal
No sample collected.

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-35**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001,001
BORING COMPANY:	TREC Env
FOREMAN:	Mike
OBG FIELD PERSONNEL:	Anthony DiNardo
Boring Location:	SB-35
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	13.5
Refusal:	(Y) / N
Depth to Groundwater:	
Start date:	8/2/11 14:25
Completion date:	8/2/11 14:55

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm
0	1	0 - 4	35%		concrete 0 - 0.3	23.0	NA
1					Fill (concrete, brick, black ash, white ash, black silty fine sand (SW)	14.9	40.4 ↓ dry
2						5.2	↓
3						5.7	30.7 ↓
4	2	4 - 8	85%		As above 4 ~ 4.8	20.1	↓
5					Reddish brown (5YR 4/3) silty fine sand (ML), trace subangular gravel	10.3	33.0 ↓ moist
6						7.1	↓
7						4.3	33.6
8		8 - 12	75%		As above, 50% subangular gravel	8.7	moist
9						6.8	
10					turns to strong brown (7.5YR 4/6) silty fine sand (ML) @ 10.9 ft	2.1	19.9
11						3.9	
12		12 - 16	40%	(12-13.5)	As above, black/white ash layer @ ~ 12.6 - 13.	3.6	12.4 wet
13					Brown (7.5 YR 4/3) sand and silt (SM)	2.5	
14					weathered rock @ 13.2-13.5		
15							
16							

Notes: Background PID = 0.5 ppm, eopt refusal 13.5 ft bgs - rock

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-36

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	TREC Env.
FOREMAN:	Mike
OBG FIELD PERSONNEL:	Anthony DiNardo
Boring Location:	SB-36
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	13.3 Refusal: (Y) N
Depth to Groundwater:	
Start date:	8/2/11 13:45
Completion date:	8/2/11 14:01

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	50%		Concrete 0 - 0.4	45		
1					concrete pieces, 0.4 - 0.6, very dark grayish brown (10YR 3/2) sand (SW) and subangular gravel (25%), some ash/fill 15%	42	8.9	dry
2						24	6.4	
3						12		
4	2	4 - 8	90%		silty sand (SM) and well graded (SW) black 4 - 5.8 (5 YR 2.5/1)	9.1	14.3	
5						6.7		dry
6					fine brown sand, trace subangular gravel (7.5 YR 5/3)	5.1	8.4	
7						9.3		
8		8 - 12	75%		As above, gravel layer 9.2 - 9.6	10.0	36.5	dry
9					9.6 Dark brown (10 YR 3/3), silty sand (SM)	6.8		
10						4.9	19.8	damp
11						5.4		
12		12 - 16	15%	(12 - 13.3)	As above, weathered bedrock at bottom.	2.8	14.7	damp
13					13.3 ft bgs - refusal	2.9		
14								
15								
16								

Notes: Background PID = 0.7 ppm, eqpt refusal 13.3 ft bgs

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB- 37**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	True Environmental
FOREMAN:	Mike Ellingsworth Jr
OBG FIELD PERSONNEL:	Jeremy Wolf

Boring Location:	
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	2-inch
Total Depth:	14' **Refusal:** (Y) N
Depth to Groundwater:	
Start date:	8/1/11 1535
Completion date:	8/1/11

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
					Concrete 0 - 0.75			
0	1	0 - 4	50%		Brown (10YR 5/3) Well Graded Medium sand (SW) w/5% large sub angular gravel	0	0	Dry
1						0		
2					As Above	0	3.2	Dry
3						0		
4	2	4 - 8	90%		Brown (10YR 4/3), Very Fine silts w/fine sands (ML) w/5% coarse subrounded gravel.	0	0	Dry
5						0		
6					As Above w/no gravel.	0	0	Dry
7						0		
8		8 - 12			Brown (10YR 5/3), Very fine silts w/fine sands (ML), 10% subrounded fine gravel	0	0	Dry
9						0		
10					As Above	0	0	Dry
11						0		
12		12 - 16			Dark grayish Brown (10YR 4/2) Low to Medium plasticity Clay, medium stiff (CL), no gravel	0	0.2	Damp
13								
14					End Boring @ 14' BGS	0		
15								
16								

Notes:

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB- 38**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.001.001
BORING COMPANY:	TREC
FOREMAN:	Mike
OBG FIELD PERSONNEL	AMD

Boring Location:	SB-38
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	10 ft — **Refusal:** (Y) / N
Depth to Groundwater:	
Start date:	8/3/11 11:50
Completion date:	8/3/11 12:00

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm
0	1	0 - 4	5%		Asphalt / gravel fill	12.7	28 dry
1							
2							18.9
3							
4	2	4 - 8	90%		Very dark gray (5Y 3/1) silty sand / sandy silt, 10% gravel, very strong petroleum odors, traces of staining	62.4	812 moist to damp
5						561	
6				(6-8)		1174	1451
7						532	
8		8 - 12	45%		As above, some dark reddish brown (5 YR 3/3) sandy silt	272	110 saturated
9						184	
10						116	
11							
12		12 - 16					
13							
14							
15							
16							

Notes: eopt refusal 10 ft bgs.
PID = 0.7 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB- 39**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862I 47362.001,001
BORING COMPANY:	TREC Env.
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-39
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	9ft **Refusal:** (Y) / N
Depth to Groundwater:	
Start date:	8/3/11 12:05
Completion date:	8/3/11 12:20

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	5'		Asphalt 0 - 0.2			
					Sand/gravel fill, coarse gravel	41.5	5.45	
1						38.3		dry
2						50.2	7.52	
3						69.7		
4	2	4 - 8	10'		Reddish brown (5YR 5/3) medium sand and angular gravel	46.1	1.49	
5						69.3		moist
6						70.3		
7						74.7	29.6	damp
8		8 - 12	40'		As above, saturated	16.1	31.3	saturated
9						14.4		
10								
11								
12		12 - 16						
13								
14								
15								
16								

Notes: Eopt refusal 9 ft. bgs — no sample

PID = 0.7 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-39(A)

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.001.001
BORING COMPANY:	TREC Env.
FOREMAN:	Mike AMD
ORG FIELD PERSONNEL:	

Boring Location:	SB-39(A)
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	9.2 Refusal: (Y) / N
Depth to Groundwater:	
Start date:	8/3/11 1225
Completion date:	8/3/11 1240

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm
0	1	0 - 4	75%		Asphalt 0-0.2	41.3	
					gravel/brick fill, sand and gravel mix	106	885 dry
1							
2					turns to dark reddish	140	
				(2-4)	brown (5YR 3/4) @ 3 ft		708
3					trace gravel, fine sand	154	
4	2	4 - 8	73%		As above, 25% angular and subangular gravel	30.1	
5						51.7	531
6						38.1	487
7						57.6	
8		8 - 12	15%		as above	21.2	620 BWB saturated
9						49.6	
10							
11							
12		12 - 16					
13							
14							
15							
16							

Notes: Refusal - Probable bedrock 9.2 ft bgs

PID = 0.7 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-40

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.001.001
BORING COMPANY:	TREC Env.
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-40
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	9.5 ft. Refusal: Y / N
Depth to Groundwater:	
Start date:	8/3/11 11:35
Completion date:	8/3/11 11:40

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm
0	1	0 - 4	50%		Asphalt 0 - 0.2	52.8	794
1					gravel / brick fill 0.2 - 2 ft (coarse sand/gravel)	67.1	
2					Strong brown (7.5 YR 4/6) sand and gravel (25%) GW/SW	76.3	695
3						82.0	
4	2	4 - 8	50%	(4-6)	orange / brown / gray mottled silty clay (ML/CL) trace gravel, strong petroleum odor, trace staining	60.6	917
5						87.7	
6						93.1	643
7						118	
8		8 - 12	15%		Brown (7.5 YR 4/3) silty fine sand, trace subangular gravel TD.	197 TD.	735 TD.
9					As above.	60.4	
10							
11							
12		12 - 16					
13							
14							
15							
16							

moist

moist

moist

Notes: Eopt refusal 9.5 ft bgs * Petroleum odor throughout *

PID = 1.2 ppm

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB- 41**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.001.001
BORING COMPANY:	TREC ENV.
FOREMAN:	Mike
OBG FIELD PERSONNEL:	AMD
Boring Location:	SB-41
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	8.3 ft **Refusal:** (Y) / N
Depth to Groundwater:	
Start date:	8/3/11 1245
Completion date:	8/3/11 1308

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	20%		Asphalt 0-0.3	116		
					sand/gravel fill, brown, angular gravel		81.6	dry
1						148		
					rock chunks 3.2-3.4			
2						111		
					brown silty sand / sandy silt 3.4-8		105	
3			(2-4)			118		
4	2	4 - 8	13%		as above with 25% angular gravel, some rock chunks,	70.1		
							70.4	moist
5					7.7 - 8.3 brittle sandy silt	74.7		
6					pieces of bedrock	58.5		dry
					Eoph refusal 8.3			
7								
8		8 - 12						
9						—		
10								
						-		
11								
12		12 - 16						
13								
14								
15								
16								

Notes: Refusal 8.3 ft. pieces of bedrock

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-43**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.001,001
BORING COMPANY:	Tree Environmental
FOREMAN:	Mike Ellingsworth Sr
OBG FIELD PERSONNEL:	Jeremy Wolf
Boring Location:	SB-43
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 2" O.D. macro core
Borehole Diameter:	2 inch
Total Depth:	9.7' **Refusal:** (Y)/ N
Depth to Groundwater:	Dry
Start date:	8/1/11 13:50
Completion date:	8/1/11 14:15

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)%	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	50%	Sample collected (SB-43-080111(0-2')) @ 1500	Very Dark Gray (10YR 3/1) Medium well graded sand (SW), 15% Fine & medium subangular gravel, Dark staining & slight odor observed 1.5'-2'	0	2.5	Dry
1						0		
2					Yellowish Brown (10YR 5/4) silty clay (CL), Trace fine rounded gravel	0	0.9	Dry
3						0		
4	2	4 - 8	25%		Very Dark Gray (10YR 3/1) Medium Well graded sand (SW), Trace rounded gravel.	0	1.5	Dry
5						0		
6					Brown (10YR 4/3) Med Well graded sand (SW), 25% Fine subrounded gravel	2.0	5.5	Dry
7						2.0		
8		8 - 12	75%		Brown 10YR (4/3), Clayey Silt (ML), 10% subrounded gravel		6.5	Dry
9								
10					End of Boring @ 9.7'			
11								
12		12 - 16						
13								
14								
15								
16								

Notes: Staining & slight odor observed 1.5'-2'. Sample (SB-43-080111 0-2') collected @ 1500. Blind Field Duplicate collected (DUP-080111) @ 1500. Equipment Blank (EB-SB-43-080111) collected @ 1500.

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG — **SB-44**

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	Tree Environmental
FOREMAN:	Mike Ellingsworth, Jr.
OBG FIELD PERSONNEL:	Jeremy Wolf

Boring Location:	SB-44
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3 inch
Total Depth:	9.5' **Refusal:** (Y) N
Depth to Groundwater:	
Start date:	8/1/11 1330
Completion date:	8/1/11 1345

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	80%		Brown (7.5YR 4/3) Poorly graded Med sands (SP) w/ trace red brick fragments.	0	2.5	Dry
1						0		
2					Very Dark grayish Brown (10YR 3/2), Silty Fine/Med grained sands w/ 5% Fine sub rounded gravel (SM)	0	2.4	Dry
3						0		
4	2	4 - 8			Brown (10YR 5/3), Silty Fine/Med sands (SM), w/ 10% Fine subangular gravel	0	3.2	Dry
5						0		
6				Sample Collected SB-44-080111(6-8') @ 1415	As Above	0	0.6	Dry
7						0		
8		8 - 12		~~Samp Collected SB-44-080111(8-12')~~	As Above	0	0	Dry
9								
10					End of Boring @ 9.5'			
11								
12		12 - 16						
13								
14								
15								
16								

Notes: No staining or odors observed. Sample (SB-44-080111(6-8')) collected @ 1415. MS/MSD collected (SB-44-080111MS + SB-44-080111 MSD) collected @ 1415

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-45

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	11862/ 47362.001.001
BORING COMPANY:	Tag Environmental
FOREMAN:	Mike Ellingsworth, Jr.
OBG FIELD PERSONNEL:	Jeremy Wolf
Boring Location:	SB-45
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 3" O.D. macro core
Borehole Diameter:	3-inch
Total Depth:	10.5' Refusal: (Y) / N
Depth to Groundwater:	
Start date:	8/1/11
Completion date:	8/1/11

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (~~inches~~) %	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	60%		Coarse Angular gravel 0-0.25' Yellowish Brown (10YR 5/4), Fine Poorly graded sands (SP) w/Trace Fine rounded gravel;	0	2.2	Dry
1						0		
2					As Above	0.1	0	Dry
3						0		
4	2	4 - 8	100%		~~As Above~~ Yellowish Brown (10YR 5/4), silty Sands (~~Fine~~) (SM) w/Trace Fine/Medium gravel (subang.)	0		
5						0	30.8	Dry
6					As Above	0	15.1	Dry
7						0		
8	3	8 - ~~12~~/05		Sample collected @ 12:20 (SB-45-080111 8-10.5')	Brown (10YR 5/3), silty Fine/Medium Sand (SM) w/ 15% Medium Subangular gravel	0	0	Dry
9								
10					End of Boring @ 10.5' BGS			
11								
12		12 - 16						
13								
14								
15								
16								

Notes: No petroleum odors or staining observed. Sample (SB-45-080111 (8-10.5')) collected @ 1220.

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB-46

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.00.001
BORING COMPANY:	TREC Environmental, Inc.
FOREMAN:	Mike Ellingsworth, Jr.
OBG FIELD PERSONNEL:	Anthony D. Nardo

Boring Location:	
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 2" O.D. macro core
Borehole Diameter:	2 inch
Total Depth:	10.6' Refusal: (Y) / N
Depth to Groundwater:	
Start date:	8/1/11
Completion date:	8/1/11

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)%	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	75		Asphalt + Gravel) 0-0.25'	22	28	✓
1					Dark Brown (7.5YR 3/2) Silty Fine/Medium Grained Sands (SM) w/15% Fine sub Rounded gravel	24		Dry
2				SB-46-080111 (2-4') @ 11:30	Brown (10YR 5/3), Silty Fine Grained Sand (SM) w/10% Fine/med subrounded Gravel	30	28	Dry
3						27		
4	2	4 - 8	100%		As above w/ 15% Fine/med Gravel	0	9.2	Dry
5						0		
6					As above	0	20.1	Dry
7						0		
8	3	8 - 12	60%		As Above w/ 20% Course sub Angular gravel	0	7.8	Dry.
9						0		
10					End of Boring @ 10.6' BGS			
11								
12		12 - 16						
13								
14								
15								
16								

Notes: No petroleum odors or staining observed. Sample (SB-46-080111 (2-4')) collected @ 11:30

Geologist Signature:

O'BRIEN & GERE ENGINEERS, INC

SOIL BORING LOG

SB- 47

CLIENT:	City of Rochester
PROJECT NAME:	24 Seneca Avenue Supplemental RI/AA
PROJECT LOCATION:	24 Seneca Avenue, Rochester, NY
FILE NO.:	118621 47362.001.001
BORING COMPANY:	Trec Environmental
FOREMAN:	Mike Ellingsworth, Jr.
086 FIELD PERSONNEL:	Jeremy Wolf

Boring Location:	SB-47
Drilling Equipment:	Geoprobe
Sampling Equip.:	4' x 2" O.D. macro core
Borehole Diameter:	2 inch
Total Depth:	11'8" **Refusal:** (Y)/ N
Depth to Groundwater:	11.5'
Start date:	8/1/11 12:00
Completion date:	8/1/11 13:25

Sketch Map

DEPTH BELOW GRADE	NO.	SAMPLE INTERVAL (ft bg)	PENETR/ RECOVERY (inches)%	ANALYTICAL SAMPLE INTERVAL (ft bg)	SAMPLE DESCRIPTION/CLASSIFICATION	Field Testing PID (screening) ppm	Field Testing PID (jar) ppm	
0	1	0 - 4	30 %		Dark grayish Brown (10YR 4/2) ~~silty~~ Fine/Medium well graded sand (SW), 15 % Fine rounded gravel	0	1.5	Dry
						0		
1								
2					As Above	0	1.2	Dry
						0		
3								
4	2	4 - 8	50 %	Sample Collected SB-47-08011 (4-6') @ 1330	Brown (10 YR 5/3), Well graded gravelly sands (SW), 5 % Fine subangular gravel	0	1.4	Dry
						0		
5								
6					Brown (10 YR 5/3), silty Fine/Medium sand (SM), w/ 10 % subrounded Fine gravel	0	0	Dry
						0		
7								
8		8 - 12	50 %		As Above w/ trace red Brick fragments	0	0	Dry
						0		
9								
10					As above w/ 5 % red Brick fragments. Weathered shale @ 11.5'	0	0	GW encountered @ 11.5'
						0		
11					End of Boring @ 11'8"			
12		12 - 16						
13								
14								
15								
16								

Notes: No petroleum staining or odors observed. Sample (SB-47-08011 (4-6')) collected @ 13:30.

Geologist Signature: